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A BRIEF DESCRIPTION OF ALLOWED AND ACCLIMATIZED VARIETIES

OF AGRICULTURAL PLANTS IN CZECHOSLOVAKIA

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A BRIEF DESCRIPTION OF THE ALLOWED AND ACCLIMATIZED VARIETIES OF AGRICULTURAL PLANTS IN CZECHOSLOVAKIA, 1956-1957.

/Stručný Popis Československých Povolených a Rajonovaných Odrud Zemědělských Rostlin (1956-57)/

Unsigned

UKZUZ (Central Agricultural Control and Testing Institute), Prague, 1957, pp. 5 - 192.

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* Translator's note: Place-names, appearing in adjectival form in the Czech names of the varieties, are restored in this translation.

Introduction

This publication contains descriptions of the four hundred sixty-three varieties of native and hybridized Czechoslovak plants which were allowed by the Ministry of Agriculture and Forest Economy in 1956-57. Among these are varieties of fourteen products which have also been acclimatized.

The varieties listed fall into the following groups: Eighty-seven are cereals; thirty-five are beans; twelve varieties are oilseeds; eight varieties are fiber plants; forty-five varieties are forage herbs; thirty-three varieties are grasses; six varieties are one-year forage grasses; twenty varieties are potatoes; seventeen varieties are seed root-crops; five varieties are condimental plants; sixteen varieties are hops tobacco, and teasel; one hundred thirty-four varieties are vegetables; and forty varieties are medicinal plants.

Descriptions of allowed varieties of fruits, vines, and ornamental plants are not included here. They are being prepared, and will be issued in separate publications.

Appended to the descriptions of the allowed varieties are descriptions of fourteen other varieties from which license has been removed for miscellaneous reasons during the past few years. These have been restricted; the last time that sowing or planting of them may be recognized is in 1957, or in some cases somewhat later.

The different types of products are classified according to the Czechoslovak State Standards for seeding and planting (CSN 46 0311) into thirteen secondary groups (viz. par. 2). After the CSN group entitled 'Condimental Plants' are placed hops, tobacco, and teasel which are not included in the CSN system.

Likewise botanical and czech terms for the products are brought into accord with CSN by the system laid out in Dostal's 'Klice k Uplne Kvetene CSR'/ Key to the Complete Flora of CSR/ published in 1954. Where the new czech names differ ffom the old and customary names, we introduce the old term after the new one.

The descriptions of the different sorts of plant are arranged , sometimes in a single group, more often in further groups and sub-groups according to type or peculiar characteristic. In all groups alphabetic order is observed.

The allowed varieties are numbered. The restricted varieties are not numbered and are printed in small type/ here single space/. Note is made in each of the latter cases as to the year the restriction was made, and as to the last year in which sowing or planting of the variety will be permitted.

Hybridized varieties are mentioned only by name. Native varieties are in all cases indicated as such.

Varieties whose names have been changed during the past few years have their old name in parenthenses after the present title.

Hybridized varieties which now have a different hybridizer are accompanied by the names of both the old and the new one.

The hybrid of many hybridized varieties is maintained by more than one station. For brevity in our descriptions we mention in such cases only one of these -- the mother station: i.e. normally the place where the variety was originally developed, or where the hybrid was completed and the variety was first allowed, or the station where at the present time the the hybrid is being maintained on the largest scale.

As far as the native plants go, if no particular institute cultivates them, and if the species is maintained by regular and several cultivation in the region of origin, we do not mention any maintainance cultivator. In many of these cases moreover there are large numbers of more or less different local non-hybrid types, which, though actually cultivated, have not been fully distinguished or tested. Sometimes we have not ventured any description in such cases; sometimes the description is only very general.

On the other hand, if a native variety has been maintained by a defintie institution, that institution is mentioned in the description as 'hybridizer' even though it is only the maintainance-cultivator, and not the actual hybridizer. Many of these varieties actually are hybridized, but since testing of them has not yet proved the necessary basic improvements over the original material, they can only be mentioned as native varieties.

We consider it necessary to make the following remarks about the descriptions themselves:

The descriptions of the varieties presented below have been worked out and corrected through comparison with the results of many years' work by the workers in the Department for plant-testing at the Central Agricultural Control and Testing Institute (UKZUZ) in Prague, in particular by the departmental workers at the testing centers in Prague, Bratislava, Brno, Dobrichovice, Havlickov , Brod, Tabor, Roznova pod Radh., Bzenec, Domaninek, Zatec, and Kosice.

Further valuable contributions were made by many hybridizer and seeding stations, by the research institute of the Czechoslovak Academy of Agricultural Sciences, (CSAZV), and a number of workers attached to the Ministry of Agriculture and Forest Economy. We sincerely thank all these for their effective cooperation.

The descriptions in the first edition of 'Strucny Popis Povolenych Odrud'/Brief Description of Allowed Varieties/ of 1952 have here been supplemented, and where necessary corrected and adjusted according to the results of the Stata Plant Tests of 1952-55.

The descriptions of the varieties are supplemented by a short history of them: Their origin, the method of hybridization, the year they were allowed, (with the older varieties this is understood to be the year their originality was first recognized) their original name, and where pertinant the present hybridizer, and the place and okres where the variety is now cultivated.

Under the acclimatized products--i.e. wheat, winter rye, winter and spring barley, oats, maize, peas, winter rape, flax, potatoes, sugar beets, turnips, onions, and cucumbers-- the krajs where the varieties are acclimatized are mentioned. Further information about the acclimatization of plants -- i.e. the okreses and production types in which the different varieties are acclimatized within the krajs-- is contained in the publication 'Rayonisace Odrud Hlavnich Zemedelskych Rostlin r.1956-57' /Acclimatization of Varieties of the Principle Agricultural Plants in 1956-57/ issued by the Ministry of Agriculture and Forest Economy at the State Agricultural Press in Prague.

The actual descriptions of the varieties-- particularly the principle types of produce-- have been expanded with information about special characteristics which were not mentioned in the first edition.

Under products which have a large number of varieties the descriptions are preceded by notes on the classification system used in the evaluations, and the terminology used to distinguish the characteristics and peculiarties in the descriptions, and by other explanations.

Aside from these supplements, only the chief character-

istics of the varieties are mentioned, although the importance of the product is taken into consideration.

The verbal descriptions of the most important characteristics are supplemented by numerical information, sometimes an average, sometimes a range, sometimes both.

We must remark that this statistical information is based on values obtained in exacting plant tests made in farm areas throughout the country during 1952-55, and analysis of formulae deduced in different places. These are average values quite dependent on growing conditions, and they cannot be considered to be invariable, absolute, or everywhere applicable. This of course does not detract from their utility.

The same applies to the numerical estimates of productivity mentioned in the classification system of different products. Such information is of a purely relative nature introduced so as to classify different varieties under a given heading. In particular we wish to remark that the degrees of productivity mentioned are only averages which may be obtained with normal good agro-technique. Through improvement of agro-technique it is of course possible to obtain considerably higher productivity from the allowed and acclimatized varieties.

The limit value statistics of various characteristics are the lowest and highest values of these characteristics determined in state plant tests under normally varying growing conditions. They do not represent average values. The average, if it is not mentioned directly, may be presumed to vary between these extremes.

In preparing the descriptions we have attempted to conform to suggestions and desires which were supplied by various institutions very kindly upon our request. We have not of course been able to conform to all of them. We have not for instance been able to satisfy the request that the descriptions be

so exact and complete so as to enable reliable identification of each variety; that the results of the state plant tests and productivity statistics be appended to the descriptions; that pictures of the plants, the fruit, and other parts of the different varieties be included etc.

We could not do these, because this publication is supposed to be a small practical handbook, whose primary purpose is to inform our agricultural public about all the varieties of the chief kinds of field products and vegetables, and is not to serve as an all inclusive, exhaustive work.

We may note, however, that there is in preparation for gradual publication the 'Atlasy Odrud'/Plant Atlases/ of the various secondary groups. These will contain not only detailed descriptions of the varieties, but also numerous colored and black-and-white illustrations of the plants and their parts. The first such publication is the 'Atlas Brambor'/Potato Atlas/, prepared by a collecti e of workers in research and hybridization, and issued at the State Agricultural Press in Prague in 1955. At the present time the 'Atlas Obilnin'/Cereals Atlas/ is in press. It has been prepared by workers in the section for plant testing at UKZUZ and will be published at the State Agricultural Press in Prague at the beginning of next year.

Likewise, the results of the state plant tests, whose publication is at present being held up by certain complications, will in the foreseeable future be subject to periodic publication. Thus our public will, so to speak, be fully informed on all plant questions.

We hope, of course, that even the present publication, though it only contains a brief description of the varieties, will be useful to all persons interested in such matters. For it conveniently brings togather a great quantity of specialized information about the allowed varieties of the chief

kinds of produce. This is unusual in publications of this type.

The allowed and acclimatized varieties of agricultural plants are extraordinarilly important tools of production. They represent the results of many years of directed labours by our hybridizers and farmers; they are the products of our soil, and of our natural advantages. By means of experimentation in the state plant tests, and through the licensing system it has been possible to ensure that these efforts bring result in productivity and other useful characteristics in the plants. A general employment of these varieties, along with correct selection of crops, and correct agro-technique will thus make it possible, without increasing the production burden, to generally and substantially raise the productivity and the quality of the harvests from our fields.

We workers in plant testing express the hope that the material presented in this publication will be of assistance in the attainment of the goals of our agriculture.

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CEREALS.

During the year 1956-57 there were allowed, and with the exception of the varieties of buckwheat and millet, there were acclimatized all in all eighty-seven varieties of cereals. Among these were twenty-nine varieties of wheat, nine varieties of rye, twenty varieties of barley, ten varieties of oats, fifteen varieties of maize, two varieties of buckwheat, and two varieties of millet.

These are all hybridized varieties, except for the two native varieties of buckwheat.

Wheat.

(Triticum L.)

During the year 1956-57 there were permitted and acclimatized all in all twenty-nine varieties of wheat: Of these twenty were winter wheat, two were alternate wheat, and seven were spring wheat. All the varieties are hybrids.

Botanically speaking, one of these (winter wheat) belongs to the species of hard wheat (Triticum durum Desf); the others belong to the class of red-grained varieties entitled common wheat (Triticum aestivum L.s.s., syn.Triticum vulgare Vill., Triticum sativum Lam.): Three varieties of winter wheat and two varieties of spring wheat are of the variety lutescens (with beardless ear, white, and with smooth glume); six varieties of winter wheat, the two alternate wheats, and one variety of spring wheat are of the var.milturum (with beardless ear, red, and with smooth glume); nine varieties of winter wheat and two varieties of spring wheat are of var. erythrospermum (with bearded ear, white, and with smooth glume); one variety of winter wheat and one variety of spring wheat are of var.ferrugineum (with bearded ear, red, and with smooth glume and one variety of spring wheat is of var. hostianum (with bearded ear, white, and downy glume).

In describing the characteristics and features of the varieties the following degrees of classification were employed:

The Period of Ripening of Winter Wheats: 1. early (with average period of growth -- from sowing to maturity -- of up to 277 days), 2. semi-early (278 - 281 days), 3. semi-late (282 - 284 days), 4. late (more than 284 days).

The Period of Ripening of Spring Wheats: 1. early (up to 117 days) 2. semi-early (118 - 119 days), 3. semi-late (120 - 121 days), 4. late (above 121 days).

For both winter and spring wheats:

Length of the Straw: 1. short (with average length up to 107 cm.), 2. medium long (107.1 - 115 cm.), 3. long (above 115 cm.).

Beard of the Ear: An ear is considered beardless, if the spicules are entirely without awn, or if only the upper spicules have awns, and these are under 2 cm.. An ear is described as awned /osinkaty/, if the upper spicules have awns longer than 2 cm,, and the other spicules are without awns. An ear is termed bearded if all the spicules along the entire length of the ear are awned.

Length of the Ear: 1. short (with average length of up to 7 cm.), 2. medium long (7.1 - 10 cm.), 3. long (above 10 cm.).

Density of the Ear:*) The density of an ear as presented in these descriptions is determined by a figure calculated to express the number of spicules occurring on 100 mm. of the rachis. The ears are considered either: 1. thin (density up to 21), 2. medium dense (21.1 - 25), 3. dense (25.1 - 33), 4. very dense (density above 33).

Shape of the Ear: 1. pyramidal (widest at the base, narrowing towards the top), 2. prismatic (almost the same width along the entire length),3. spindle-like (broadest near the

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*) We calculate the density of an ear according to the formula $H = \frac{(K-1) \times 100}{v}$, in which H indicates the density of the ear, K is the number of spicules, and v is the length of the rachis in millemeters.

middle, tapering near the top and less so near the base), 4. clublike (broadest at the top, tapering towards the base).

Distinguishing Marks on the Glumes: We distinguish the following features on glumes situated about 1/3 of the way up from the base of the ear:

1. Upper edge of the glume (according to inclination) a) horizontal, b) inclined, c) roundish (if the edge of the glume passes smoothly off the side wall of the glume, without break), d) raised.

2. Length of the Tooth of the Glume: a) short (up to about 2 mm.-- includes most bearbless wheats), b) medium long (about 2 - 3 mm.-- includes only bearded wheats), c) long (above 3 mm.-- bearded varieties).

3. Shape of the tooth according to curve: a) straight, b) curved.

Absolute weight of the kernel: 1. low (up to 37 g.), 2. medium (37.1 - 41 g.), 3. high (above 41 g.).

Hectolitre weight: 1. low (up to 75 kg.), 2. medium high (76 - 78 kg.), 3. high (above 79 kg.).

Horniness of the Kernel: The horniness /sklovitost/ of a kernel is measured by summing the horny kernels and half the number of semi-horny kernels in an arbitrary group of 100 kernels. The resulting percentage permits the terms 1. horny (horniness above 70 %), 2. semi-horny (45 - 70 %), 3. mealy (below 45 %).

Baking Quality of the Kernel (flour): This quality is evaluated according to the system of the Agricultural Research Institute, where the various determinable values (quantity of dry gluten, elasticity, ductility, and swelling index of the gluten) are represented by a number of points, whose sum offers a numerical estimate of quality. The corresponding verbal terms are: 1. excellent, 2. very good, 3. good, 4. inferior.

Resistance of the Varieties to Injurious Factors: This is estimated according to the ascertained degree to which the plants are affected by frost, lodging, and disease. The varieties

are categorized as 1. resistant, 2. sufficiently resistant, 3. fairly resistant, 4. less resistant, 5. non-resistant.

Winter Wheat

Varieties of Triticum aestivum, var. lutescens.

1. 'Pyselka': Hybridized through individual selection from the dense-ear winter wheat 'Carsten V' cultivated around Cesky Brod. First allowed in 1940; restricted in 1941 but again allowed in 1947. Hybridizer: the Hybrid Station at Stupice, okres Ricany.

Short strong straw. Beardless ear, white (grey-white with yelowish tint), short, dense to very dense, generally prismatically spindle-like to spindle-like. Upper edge of the glume most frequently horizontal, less frequently inclined: tooth of the glume short and straight. Kernel red (light brown with yellowish tint), medium large or less, mealy to semi-horny, inferior to good baking quality: absolute weight low (34 - 42 g.), hectolitre weight medium high (75 - 79 kg.).

Late variety. Less resistant to frost, resistant to lodging and smuts/ sneti mazlave, prasne/. Suitable for good wheat soil with sufficient moisture in middle and low-lying positions. Requires early sowing. During 1956-57 it was acclimatized in all krajs save Gottwaldov.

2. Stupice 'Bastard': Hybridized through individual selection from a cross of Czech red wheat (strain 23/11) with alternate wheats resistant to rust (strain 23/18) Allowed in 1927. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Medium long straw remarkable in that during the period preceding yellow maturity the first internodium below the ear has a red-violet color. Beardless ear, white (grey-yellow with brownish tint), medium long to long, thin, pyramidal. Upper edge of the glume horizontal, though occasionally inclined; tooth of the glume short and straight. Peculiar feature: the

antlers are ordinarily red-violet. Kernel red (brown with red or yellow tint), medium large, semi-horny, good to weak baking quality: absolute weight medium high (37 - 47 g.), hectolitre weight medium high (77 - 81 kg.).

Semi-early to semi-late variety. Sufficiently resistant to frost, lodging and rust, resistant to smuts. Suitable particularly for medium heavy soil and for all positions which are not dry. It will tolerate rather late sowing. During 1956-57 it was acclimatized in all krajs save Gottwaldov.

3. Visnova 'dense-ear': Hybridized at the former Zemsky Vyzkumny Ustav Zemedelsky/ Czech Agricultural Research Institute/ in Brno through individual selection from the acclimatized winter wheat Rimpau 'Bastard'. Hybrid was actually carried out by the Hybrid Station at Visnova u Mor. Krumlova. Allowed in 1925. Present hybridizer: Hybrid Station at Stara Ves, okres Prerov.

Medium long to short straw, relatively coarse and firm. Beardless ear, white (light yellow with pale brown tint), short to medium long, medium dense to dense, prismatic to prismatically pyramidal. Upper edge of the glume inclined or horizontal: tooth of the glume generally short and straight or mildly curving. Kernel red (light brown), medium large to large, mealy to semi-horny, inferior to good baking quality: absolute weight high (39 - 55 g.), hectolitre weight medium high (74 - 82 kg.).

Semi-late variety. Less resistant to frost, sufficiently resistant to lodging, resistant to stinking smut/mazlava/, fairly resistant to loose smut/prasna/, less so to rust. Suitable for good wheat soils in favourable positions in particular. Requires early sowing and sufficient moisture in the soil. During 1956-57 it was acclimatized in Olomouc and Ostrava krajs.

Varieties of Triticum aestivum, var. milturum.

4. Dobrovice '10': Hybridized through individual selection from native varieties of Czech 'red'/cervenka/ from the region of Mlada Boleslav. Allowed in 1923. Hybridizer: Vyzkumny Ustav Reparsky/Beet-growing Resaarch Institute/ in Semcice, okres Mlada Boleslav.

Medium long straw. Beardless ear, red (brown to dark-brown with red tint), medium long, thin to medium dense, generally pyramidal, sometimes pyramidically prismatic. Upper edge of the glume horizontal or inclined, tooth of the glume usually short and straight. Kernel red (Brown with yellow or red tint), medium long, semi-horny, good baking quality: absolute weight low to medium high (33 - 43 g.), hectolitre weight medium high (77 - 82 kg.).

Semi-early variety. Sufficiently resistant to frost and lodging, less to rust, resistant to sticky smut, and fairly resistant to loose smut. Suitable particularly for medium and better soils in beet-growing areas where there is sufficient precipitation. It will tolerate rather late sowing. In the period 1956-57 it was acclimatized in the Usti nad Labem, Liberec, and Ostrava kraja.

5. Hodonin 'Holice': Hybridized by the former Hybrid Station in Velke Pavlovice through individual selection from a cross of a variety of Triticum Spelta with a native Hodonin spring (wheat). It was allowed in 1937. Present hybridizer: Hybrid Station at Cejce, okres Hodonin.

Medium long straw, Awned ear, red (dark brown with red tint), medium long, thin, pyramidal. Upper edge of the glume inclined or horizontal, tooth of the glume regularly short and straight. Kernel red (dark brown with red tint), medium large, semi-hyaline (horny) to hyaline (horny), good to very good baking quality: absolute weight medium high (38 - 48 g.), hectolitre weight high (80 - 83 kg.).

Semi-early to early variety. Sufficiently resistant to

frost, lodging, and sticky smut, fairly resistant to loose smut, and less resistant to rust. Particularly suitable for good wheat soils in various, though especially warm positions. It tolerates dryness. It prefers early sowing. During 1956-57 it was acclimatized in Olomouc, Gottwaldov, and Ostrava krajs.

6. Chlumec '12': Hybridized through individual selection from a native variety of Czech 'red'. Allowed in 1919. Hybridizer: Hybrid Station at Chlumec nad Cidl., okres Novy Bydzov.

Medium long straw. Beardless ear, red (dark brown with red tint), medium long, thin, pyramidal. Upper edge of the glume predominantly horizontal, occasionally inclined, tooth of the glume short, and usually straight. Kernel red (brown with yellow tint), medium large to small, semi-horny, good baking quality: absolute weught low to medium high (34 - 44 g.), Hectolitre weight high (79 - 81 kg.).

Semi-late to semi-early variety. Resistant to frost, sufficiently resistant to lodging, resistant to smuts, sufficiently resistant to rust. Suitable with good agro-technique for all positions and soils. Tolerates also rather late sowing. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Liberec, Hradec Kralove, Pardubice, Jihlava, and Brno krajs.

7. Kastice 'beardless': Hybridized through individual selection from a cross of the winter wheat 'Bostoloprtska km.6' with 'Moravian field' wheat. Allowed in 1937. Hybridizer: Hybrid Station at Kastice, okres Podborany.

Medium long straw. Beardless ear, red (brown to dark brown with red tint), medium long, thin, pyramidal. Upper edge of the glume horizontal or inclined, tooth of the glume short and straight. Kernel red(light to darker brown) , medium large, semi-horny, good baking quality: absolute weight

low to medium high (34 - 44 g.), hectolitre weight high (77 - 81 kg.).

Semi-late to semi-early variety. Sufficiently resistant to frost, resistant to lodging and sticky smut, sufficiently resistant to loose smut , and fairly resistant to rust. Particularly suitable for good soils in middle and low situations. Tolerates rather late sowing. During 1956-57 it was acclimatized in the Plzen, Karlovy Vary, Usti n. L., Hradec Kralove, and Pardubice krajs.

8. Pavlovice '198' (Hodonin 198/46): Hybridized by the former Hybrid Station at Velke Pavlovice through individual selection from a cross of the winter wheat 'Carsten V' and Hodonin 'Hâlice'. Allowed in 1956. Present hybridizer: Hybrid Station at Cejce, okres Hodonin.

Medium long to short straw. Long awned ear, red (brown to dark brown with red tint), medium long to long, thin, pyramidal. Upper edge of the glume inclined, tooth of the glume short and straight. Kernel red (brown with pale red tint), medium large, semi-hornyne, good baking quality: absolute weight high (34 - 48 g.), hectolitre weight medium to high (76 - 80 kg.).

Semi-early variety. Sufficiently resistant to frost, lodging, loose smut, and rust. Particularly suitable for medium and light soils in favoured situations. During 1956-57 as a newly allowed variety it was only acclimatized on a temporary basis in the Brno and Gottwaldov krajs.

N O T E: Alongside the basic awned type of this variety there have thus far been outcroppings of plants with bearded ears, though otherwise entirely identical with the characteristics and features of the awned type plants. Until further notice it is only allowed to recognize this variety when there are more than 25 awned plants per 100 m^2.

9. Zidlochovice 'Holice': Hybridized by the former hybrid Station at Zidlochovice through individual selection from a cross of a native Southern Moravian 'holice' with the hybrid

variety 'Zidlochovice Jubilee'. Allowed in 1932. Present hybridizer: Hybrid Station at Cejce, okres Hodonin.

Medium long straw. Awned ear, red (Light brown to brown with red tint), medium long to long, thin, pyramidal. Upper edge of the glume generally horizontal, more rarely inclined, tooth of the glume short, though occasionally rather long, straight. Kernel red (brown with yellowish or red tint), fairly large to large, long, semi-hornyne to hornyne, good to very good baking quality: absolute weight high (40 - 50 g.), hectolitre weight medium high to high (78 - 80 kg.).

Early variety. Resistant to frost, smuts, sufficiently resistant to rust, and less so to lodging. Particularly suitable for middling and weaker soils and rather dry situations. During 1956-57 it was acclimatized in the Brno and Banska Bystrica kraje.

Varieties of Triticum aestivum, avr. erythrospermum.

10. Hodonin 'Osinatka': Hybridized by the former Hybrid Station at Velke Pavlovice through individual selection from a cross of the varieties 'Hodonin Holice' and 'Bankutka'. Allowed in 1947 as a replacement for a restricted variety of the same name. Present hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

Medium long straw. Bearded ear, white (grey-whitish), medium long to long, thin, pyramidal. Upper edge of the glume generally inclined, although sometimes horizontal, tooth of the glume most often long and straight, more rarely curved. Kernel red (light brown to dark brown with red tint), medium large to large, semi-hornyne to hornyne, good to very good baking quality: absolute weight high (40 - 49 g.), hectolitre weight high (77 - 81 kg.).

Early variety. Sufficiently resistant to frost, lodging and also to sticky smut, less resistant to loose smut and rust.

Particularly suitable for good soils in various situations. During 1956-57 it was acclimatized in the Brno, Gottwaldov, Bratislava, Nitra, and Presov krajs.

11. Kastice 'Osinatka': Hybridized through individual selection from a multiple cross of the varieties: 'Crieven 192' X X (Hodonin 'Universal' X 'Bankuta') X (Hodonin 'Holice' X 'Manitoba') X X ('Kubanka' X Buchar). The hybrid was initiated in the former Hybrid Station at Velke Pavlovice, continued in the same place, and completed at Kastice. Allowed in 1954. Hybridizer: Hybrid station at Kastice, okres Podborany.

Medium long straw, firm. Bearded ear (see note), white (grey yellow with brownish tint), medium long, thin, pyramidal. Upper edge of the glume inclined, tooth of the flume long and straight, though occasionally bent. Kernel red (brown with greyish tint), medium large, semi-horny, good to somewhat poor baking quality: absolute weight medium high (37 - 45 g.), hectolitre weight medium high (76 - 80 kg.).

Semi-early to rather late variety. Sufficiently resistant to frost, very resistant to lodging and loose smut, sufficiently resistant to rust, moderately resistant to sticky smut. It will tolerate dryness. Suitable for good and weak wheat soils in various situations. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Karlovy Vary, Usti n.L., Liberec, Pardubice, Brno, and Gottwaldov krajs.

N O T E: Grafts have hitherto been observed among the plants of this wheat: alongside the ordinary bearded types there appear plants with beardless ears, which are entirely identical with the bearded plants with respect to other characteristics and features. Until further notice it is only allowed to recognize this variety when there are more than 150 beardless /sic/ plants per 100 m^2.

12. 'Kossuth': Hybridized through individual selection from a cross of the varieties 'Bonfermier' and 'Minturka'. Allowed in 1956. Hybridizer: Hybrid Station at Sladkovicovo,

okres Galanta.

Medium long to long straw. Bearded ear, white (whitish yellow), medium long to long, thin, pyramidal. Upper edge of the glume inclined to roundish, tooth of the glume usually long and straight. Kernel red (brown to dark brown), medium large to large, semi-horny, very good to excellent baking quality: absolute weight medium high (35 - 40 g.), hectolitre weight medium high (72 - 79 kg.).

Early variety. Resistant to frost, sufficiently resistant to lodging , smuts, and fairly resistant to rust. Particularly suitable for good wheat soils, and favoured situations. During 1956-57 as a new variety it was acclimatized on a temporary basis only in the Bratislava kraj.

13. Radosine 'Karola': Hybridized through individual selection from a cross of a Russian winter wheat xxxxx (native) with 'Surany no. 121'. Allowed in 1941. Hybridizer: Hybrid Station at Radosine, okres Topolcany.

Medium long to long straw. Bearded ear, white (yellow-grey with light brown tint, awns occasionally black), medium long to long, thin, pyramidal. Upper edge of the glume predominantly inclined, tooth of the glume long and straight, though sometimes curved. Kernel red (grey-brown), medium large, semi-horny, most often very good baking quality: absolute weight medium high (36 - 44 g.), hectolitre weight high (77 - 81 kg.).

Early to semi-early variety. Sufficiently resistant to frost, fairly resistant to lodging, resistant to smuts, less resistant to rust. Particularly suitable for medium and poor soils in various situations. Requires early sowing. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Zilina, and Kosice krajs.

14 Slovak 'B': Hybridized by the hybrid station at Sladkovicovo through individual selection from the winter wheat 'Bankuta 1201'. Allowed in 1946. Present hybridizer: Hybrid Station at Bucany, okres Hlohovec.

Medium long straw. Bearded ear, white (yellow grey with light brown tint), medium long, thin, pyramidal. Upper edge oftthe glume generally inclined, tooth of the glume rather long to long and straight, though occasionally bent. Kernel red (brown with light reddish tint), medium large, semi-hornyne to quite hornyne, very good baking quality: absolute weight medium high (38 - 42 g.), hectolitre weight high (78 - 83 kg.).

Early variety. Sufficiently resistant to frost, fairly resistant to lodging, resistant to smuts, less so to rust. Particularly suitable for better soils and favoured situations. Requires early sowing. During 1956-57 it was acclimatized in the krajs Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

15. Slovak '200': Hybridized through individual selection from a cross of the winter wheat 'Diosec 200' with 'Bankuta 118'. Allowed in 1946. Hybridizer: Hybrid station at Sladkvicovo, okres Galanta.

Medium long straw. Bearded ear, white (yellow-whitish with brown tint), medium long, thin, pyramidal. Upper edge of the glume predominantly inclined, tooth of the glume most often rather long to long, sometimes short, straight to mildly curved. Kernel red (brown with grayish tint) medium large, semi-hornyne to hornyne, very good baking quality: absolute weight high (38 - 46 g.), hectolitre weight high (78 - 82 kg.).

Early variety. Sufficiently resistant to frost, less so lodging and rust, resistant to smuts. Particularly suitable for good, middling to heavy soils in favoured situations. Requires early sowing. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Kosice, and Presov krajs.

16. Slovak '777': Hybridized through individual selection from a native variety from the Vrbove area. Allowed in 1921. Hybridizer: Hybrid Station in Sladkovicovo.

Long straw. Bearded ear, white (light brownish, with yellow tint), medium long to long, thin, pyramidal. Upper edge of the glume inclined, more rarely raised, tooth of the glume long and straight. Kernel red (brown with greyish tint), medium large, semi-hornyne to hornyne, very good to excellant baking quality: absolute weight high (37 - 46 g.), hectolitre weight high (78 - 82 kg.).

Early variety. Resistant to frost, less resistant to non-resistant to lodging, resistant to sticky smut, fairly resistant to loose smut and rust. Particularly suitable for better soils in all situations except the very dry and the very rugged. It requires early sowing; and must be harvested on time because when over-ripe grain falls from the ears. During 1956-57 it was acclimatized in the Brno, Gottwaldov, Bratislava, Nitra, Zilina, Kosice, and Presov krajs.

17. Slovak 'Intensive': Hybridized through individual selection from a cross of 'Slovak 777' with 'Bankuta 1201'. Allowed in 1946. Hybridizer : Hybrid Station at Sladkovicovo, okres Galanta.

Medium long straw. Bearded ear, white (Whitish grey with brown tint), medium long to long, thin, pyramidal. Upper edge of the glume inclined, tooth of the glume long and straight, though sometimes curved. Kernel red (brown and dark brown with grey red tint), medium large, semi-hornyne to quite hornyne, good to very good baking quality; absolute weight high (38 -47 g.), hectolitre weight high (78 - 83 kg.).

Early variety. Sufficiently resistant to frost, lodging, and stinky smut, fairly resistant to loose smut and rust.

Particularly suitable for good soils in various situations, other than the very dry. Requires early and thick sowing. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Kosice, and Presov krajs.

18. Viglase: Hybridized through individual selection from a cross of the wheats (Slovak 'NR' X Bankuta 178) X (Bankuta 1014 X Slovak 777). Allowed in 1948. Hybridizer: Hybrid Station at Viglase, okres Zvolen.

Medium long to long straw. Bearded ear, white (light brownish with yellow tint), long, thin, pyramidal. Upper edge of the glume inclined, tooth of the glume fairly long to long, straight. Kernal red (brown with greyish tint) medium large, semi-hornine to hornine, very good to good baking quality: absolute weight high (36 - 45 g.), hectolitre weight high (79 - -83 kg.).

Early variety. Sufficiently resistant to frost and lodging, smuts, and rust. Particularly suitable for the better and rather heavy soils in various, including rather rugged situations with plenty of precipitation. It will not tolerate aridity. Requires early sowing. During 1956-57 it was acclimatized in the Nitra, Banska Byatrica, Zilina, Kosice, and Presov krajs.

Varieties of Tribicum aestivum, var. ferrugineum:

19. Zidlochovice 'Osinatka': Hybridized by the former hybrid station at Zidlochovice through individual selection from a cross of Moravian field Tschermak winter wheat with a Russian native bearded/osinatka/. Allowed in 1938. Present hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

Medium long to long straw. Bearded ear, red (light brown and brown with red tint), medium long to long, thin, pyramidal. Upper edge of the glume generally inclined, sometimes raised,

tooth of the glume long, straight, though occasionally curved. Kernel red (brown with yellowish or greyish tin), medium large to large, semi-horny, good, though sometimes inferior baking quality: absolute weight high (42 - 51 g.), hectolitre weight medium high to quite high (77 - 81 kg.).

Early variety. Sufficiently resistant to frost, fairly resistant to lodging, sufficiently resistant to loose smut and rust, less resistant to sticky smut. Suitable for middling and lighter soils in all situstions. Requires early sowing, and must be harvested in time. During 1956-57 it was acclimatized in the Jihlava, Brno, Olomouc, Gottwaldov, and Ostrava krajs.

Varieties of Triticum durum Desf.:

20. Solary winter durum; (Hubice 47 - 484): Hybridized through individual selection from a cross of a winter wheat Triticum aestivum, var. lutescens from the area of Lucenec with a variety of durum wheat . Allowed in 1956. Hybridizer: Hybrid Station at Solary, okres Dunajska Streda.

Long straw, coarse, filled with pith beneath the ear. Bearded ear, red (Light brown to brown), medium long, strong, pyramidally prismatic. Upper edge of the glume inclined to roundish, tooth of the glume short, mildly curved, surface of the glume very downy. Kernel red (light brown to darker brown), medium large to large, horny, hard, inferior baking quality, but highly suitable for flour to be used in paste manufacture; absolute weight very high (38 - 58 g.), hectolitre weight low to medium (64 - 80 kg.).

Semi-late to late variety. Less resistant to frost, resistant to lodging, smuts, and rust. Requires soil rich in foodstuffs and bacterial activity, as well as fairly warm situations. During 1956-57 it was acclimatized in the maize region of Bratislava kraj in the okreses Dunajska Streda, Calovo, and Samorin.

Alternate wheat /přesivka/

Varieties of Triticum Aestivum, var. Milturum:

1. 1. Czech red alternate wheat: Hybridized by the Hybrid Station at Stupice through individual selection from a native Czech red alternate wheat from the neighbourhood of Pysely. Allowed in 1922. Present hybridizer: Hybrid station at Kostelec u.Krizek, okres Prague East.

Medium long straw. Beardless ear, (red (brown with red tint), rather short to medium long, thin, pyramidal. Upper edge of the glume horizontal, tooth of the glume short and straight. Kernel red (brown with greyish or red tint), medium large to small, semi-horny, good baking quality: absolute weight low to faibly high (31 - 42 g.), hectolitre weight high (78 - 81 kg.).

Semi-late to semi-early variety. Sufficiently resistant to frost, fairly resistant to lodging, resistant to smuts, fairly resistant to rust. With Fall sowing it is suitable for all situations except dry ones, and for fairly heavy to light soils. As a winter wheat it will tolerate quite late sowing. As a Spring wheat it is suitable only for the more favoured and damp situations, and even so requires very early sowing (before mid-March). During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Liberec, Hradec Kralove, and Pardubice krajs.

2. Postoloprtska red alternate wheat: Hybridized by the former hybrid station at Lipen through individual selection from a native Czech variety of red alternate wheat from Postoloprtska. Allowed in 1914. Present hybridizer: Hybrid station at Doksany, okrec Roudnice nad Labem.

Medium long straw. Beardless ear, red (brown to dark brown with red tint), rather short to medium long, thin, pyramidal. Upper edge of the glume horizontal as a rule, tooth of the glume short and straight, occasionally curved. Kernal red (brown to yellow brown with greyish or red tint),

medium large to small, semi-horny, good baking quality: absolute weight fairly high to low (33 - 44 g.), hectolitre weight high (77 - 82 kg.).

Semi-late to rather early variety. Sufficiently resistant to frost, fairly resistant to lodging, loose smut, and rust, and sufficiently resistant to stinking smut. As a winter wheat it is suitable for various situations and middling and lighter soils; It also tolerated very late sowing: But with late sowing the seeding must be thicker than usual (240 kg./ha.), for a relatively small proportion germinates then. As a spring wheat it is suitable only for the more favoured and moist situations, and requires very early sowing. It requires early harvest. During 1956-57 it was acclimatized in the Usti n.L. kraj.

Spring Wheat.

Varieties of Triticum aestivum, var lutescens.

1. Ratbore: Hybridized by the former Hybrid Station at Ratbore through individual selection from the acclimatized Heine spring wheat 'Kolben'. Allowed in 1925. Present hybridizer : Beet-grower Research Institute CSAZV at Semcice, okres Mlada Boleslav.

Long straw. Beardless ear, white (yellowish grey white), medium long to long, thin, pyramidal. Upper edge of the glume ordinarily horizontal, more rarely raised, tooth of the glume usually short and straight. Antlers occasionally red violet. Kernel red (light brown), medium large, mealy to semi-horny, good baking quality: absolute weight medium high (28 - 48 g.), hectolitre weight medium high (63 to 80 kg.).

Late variety. Fairly resistant to lodging, less resistant to rust, and rather prone to loose smut. Particularly suitable for good soils in favoured locations with plenty of precipitation. Requires early sowing and must be harvested in good time,

because with over-ripening the grain falls out very easily. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Usti n.L., Liberec, Hradec Kralove, and Pardubice krajs.

2. 'Vega': Hybridized by the Hybrid station at Celechovice through individual selection from a cross of the wheats 'Manitoba' and 'Markyza'. Allowed in 1946. Present hybridizer: Hybrid Station at Stara Ves, okres Prerov.

Long straw. Beardless ear, white (yellowish grey-white), medium long, thin, pyramidal. Upper edge of the glume most often inclined, though sometimes horizontal, tooth of the glume short and straight. Kernel red (brown with reddish tint), medium large, semi-horny, very good baking quality: absolute weight low to fairly high (28 - 45 g.), hectolitre weight fairly high to high (69 - 84 kg.).

Semi-late variety. Sufficiently resistant to lodging, less resistant to rust and loose smut. Particularly suitable for good soils and foavoured situations not too dry. During 1956-57 it was acclimatized in the Pardubice, Brno, Olomouc, Gottwaldox, and Ostrava krajs.

Varieties of Triticum aestivum, var. milturum.

3. 'Podboranka': Hybridized through individual selection from Janetzki early spring wheat. Allowed in 1951. Hybridizer: Hybrid Station at Kastice, okres Podborany.

Long straw. Beardless ear, red (light brown), fairly long to short, thin to fairly dense, pyramidal. Upper edge of the glume both inclined and horizontal, tooth of the glume short and straight. Kernel red (light brown with yellowish tint), medium large, semi-horny, good to excellent baking quality: absolute weight low (27 - 47 g.), hectolitre weight high (72 - 84 kg.).

Semi-early variety. Fairly resistant to lodging, less

resistant to rust and loose smut. Especially suitable for good soils in somewhat dry locations, although it is not particular about either soil or location. During 1956-57 it was acclimatized in the Ceske Budejovice, Plzen, Karlovy Vary, and Usti n.L. krajs.

Varieties of Triticum aestivum, var. erythrospermum.

4. Bucany: Hybridized by the former Hybrid Station at Bumerice through individual selection from a native variety from the neighbourhood of Trnava. Allowed in 1949. Present hybridizer: Hybrid Station at Bucany, okres Hlohovec.

Medium long straw. Bearded ear, white (grey white), medium long, thin, pyramidal . Upper edge of the glume regularly inclined, though more rarely roundish, tooth of the glume long and straight. Kernel red (brown), fairly large, semi-horny, very good baking quality: absolute weight fairly high (33 - 45 g.), hectolitre weight fairly high (73 - 80 kg.).

Early variety. Less resistant to lodging and rust, rather prone to loose smut. Particularly suitable for middling and lighter soils in low situations. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Kosice, and Presov krajs.

5. 'Niva': Hybridized by the former Hybrid Station at Novy Dvor u Olomouce through individual selection from the spring wheats 'Klasterskohradiste' and 'Loosdorf'. Allowed in 1934. Present hybridizer: Hybrid Station at Kralice na Hane, okres Prostejov.

Medium long straw. Bearded ear, (yellowish), medium long, thin, pyramidal, Upper edge of the glume inclined or roundish, tooth of the glume generally medium long and mildly rounded. Kernel red (rather dark brown), fairly large, semi-horny, very good baking quality: absolute weight low (28 - 48 g.), hectolitre weight high (71 - 84 kg.).

Semi-early variety. Sufficiently resistant to lodging, less resistant to rust and loose smut. Particularly suitable for good soils in potato or beet growing areas with plenty of precipitation. During 1956-57 it was acclimatized in the Prague, Hradec Kralove, Jihlav, Brno, Olomouc, Gottwaldov, Ostrava, Bratislava, Nitra, and Banska Bystrica krajs.

Varieties of Triticum aestivum, var, ferrugineum.

6. Stupice 'Vouska': Hybridized through individual selection from the Canadian wheat 'Huron'. Allowed in 1927. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Medium long straw. Bearded ear, red (rust brown), medium long, thin, pyramidal. Upper edge of the glume horizontal or inclined, tooth of the glume generally short and straight or mildly rounded. Kernel red (rather dark brown with reddish tint), fairly large to large, semi-hornyne, very good to good baking quality: absolute weight low to fairly high (30 - 45 g.), hectolitre weight fairly high to high (70 - 84 kg.).

Semi-early to early variety. Fairly resistant to lodging and rust, somewhat prone to loose smut. Suitable for all soils and locations. It will tolerate very early and rather late sowing. It is suitable for improving sparse winter wheats. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Liberec, Hradec Kralove, Pardubice, Jihlava, Bratislava, Nitra, Zilina, Kosice, and Presov.

Varieties of Triticum aestivum, var, hostianum.

7. 7. Slovak 'early'/skora/: Hybridized by the former Hybrid Station at Sladkovicovo through individual selection from anbearded type chosen from the Canadian spring wheat 'Reward'. Allowed in 1957. Present hybridizer: Hybrid station at Bystricka, okres Martin.

Medium long straw. Bearded ear, white (grey white), medium long, thin, pyramidal. Upper edge of the glume ordinarily inclined, occasionally rounded, tooth of the glume mostly long and short, and mildly curved. Almost the entire surface of the glume is downy. Kernel red (light brown), small to fairly large, semi-horny to horny, very good baking quality: absolute weight low (31 - 43 g.), hectolitre weight high (76 - 84 kg.).

Very early variety. Less resistant to lodging and loose smut, sufficiently resistant to rust. Particularly suitable for good soils and middling to higher locations. Due to its early ripening it is suitable for improving sparse winter wheats. During 1956-57 it was acclimatized in the Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

Rye

(Secale Cereale L.)

During the year 1956-57 eight hybrid varieties of winter rye, and one hybrid variety of spring rye were allowed and acclimatized.

All of these varieties belong to the botanical species Secale cereale L.

In describing the varieties the following degrees of classification were employed:

Length of the Straw: 1. short (average length up to 145 cm), 2. medium long (146 - 165 cm.), 3. long (above 165 cm.).

Length of the Ear: 1. short (average length up to 8 cm.), 2. medium long (8.1 - 11 cm.), 3. long (above 11 cm.).

Density of the Ear: This is computated with the same formula as with wheat (see p. 9). According to the result the ear is classified as 1. very thin (density up to 26), 2. thin (26.1 - - 30), 3. fairly dense (30.1 - 36), 4. dense (36.1 - 40), 5. very dense (above 40).

Shape of the ear: 1.Prismatic, 2. Pyramidal, 3. narrowly fish-shaped/rybovity/(Broadest and densest about on third up from the base, tapering towards the top and the base),4. fish-shaped (same, only rather broader), 5. broadly fish-shaped (same, only broad). With most of the varieties all these principal ear forms appear regularly. In the descriptions of the varieties only those forms are mentioned which predominate, or are particularly numerous.

Color of the Kernel: 1. blue-green, 2. grey-green, 3. yellowish grey-green, 4. yellow, 5. brown.

Shape of the Kernel: According to its length, the kernel is classified: 1. short (average length up to 7 mm.), 2. medium long (7.1 - 8.5 mm.), 3. long (above 8.5 mm.). According to the proportion of length to width, the kernel is classified:1. lean , 2. fairly full, 3. plump.

Absolute Weight: 1. low (up to 30 g.), 2. fairly high (30.1 - 40 g.), 3. high (above 40 g.).

Hectolitre Weight: 1. low (up to 69 kg.), 2. fairly high (69.1 - 75 kg.), 3. High (over 75 kg.).

The Period of Ripening of Varieties of Winter Rye: 1. very early (with average period of growth up to 284 days), 2, early (285 - 289 days), 3. semi-early (290 - 295 days), 4. semi-late (296 - 300 days), 5. late (over 300 days).

Resistance of the Variety to frost, snow mold, and lodging is determined and evaluated as with wheat.

Winter Rye

1. Czech: Hybridized by the former Hybrid Station at Velke Pavlovice through individual selection from a cross of Bystera rye and Petkus rye. Allowed in 1949. Present hybridizer: Hybrid Station at Slapy, okres Tabor.

Medium long straw. Medium long to short ear, fairly dense, primarily pyramidal, more rarely narrowly fish-shaped to fish-shaped. Kernel grey-green, medium long, mostly fairly full:

absolute weight fairly high (28 - 38 g.), hectolitre weight fairly high to high (71 - 77 kg.).

Semi-early. Sufficiently resistant to frost and lodging, less resistant to snow mold. Suitable for all locations and soils. During 1956-57 it was acclimatized in all krajs in CSR.

2. Chlumec: Hybridized through individual selection from a cross of a native rye from the neighbourhood of Chlumec n. Cidl. with Petkus Struby Schlanstedt, and Probstei winter ryes. Allowed in 1908. Hybridizer: Hybrid Station at Chlumec nad Cidl., okres Novy Bydzov.

Medium long straw. Medium long to short ear, fairly dense, principally pyramidal, though sometimes narrowly fish-shaped to fish-shaped. Kernel grey-green to yellow sh grey-green, medium long, mostly fairly full: absolute weight fairly high (29 - 39 g.), hectolitre weight middling to low (67 - 74 kg.).

Early to semi-early var ety. Fairly resistant to frost, less resistant to lodging. Suitable for all locations and soils. During 1956-57 it was acclimatized in the Prague, Usti n. L., and Hradec Kralove k ajs.

3. Radosine 'Rekord': Hybridized through individual selection from a cross of a native variety from the neighbourhood of Radosine with the Petkus winter rye. Allowed in 1929. Hybridizer: Hybrid Station at Radosine, okres Topolcany.

Medium long to long straw. Medium long to long ear, fairly dense to thin, predominantly pyramidal, occasionally narrowly fish-shaped and prismatic. Kernel grey-green to yellowish grey-green, medium long, fairly full: absolute weight medium (28 - 38)g.), hectolitre weight medium to low (64 - 74 kg).

Semi-early variety. Sufficiently resistant to frost, less

resistant to lodging. Particularly suitable for medium locations and soils. During 1956-57 it was acclimatized in the Bratislava Nitra, Banska Bystrica, Zilina, Kosice and Presov krajs.

4. Ratbore: Hybridized by the former Hybrid Station at Ratbore from the Hadmersleben winter rye 'Klasterni'. Allowed in 1925. Present Hybridizer: Hybrid Station at Dobrenice, okres Hradec Kralove.

Long straw. Long ear, thin to very thin, primarily prismatic, though more rarely pyramidal. Kernel grey-green to yellowish grey-green, medium long, fairly full: absolute weight fairly high (28.5 - 38.5 g.), hectolitre weight fairly high (69 - 77 kg.).

Semi-early variety. Fairly resistant to sufficiently resistant to frost, less resistant to lodging. Suitable for various locations and soils. During 1956-57 it was acclimatized in the Prague, Hradec Kralove, and Pardubice krajs.

5. Stupice 'S II': Hybridized by the Hybrid Station at Stupice through individual selection from a native variety from the neighbourhood of Slany. Allowed in 1922. Present hybridizer: Hybrid Station at Kostelec u.Krizku, okres Prague-East.

Medium long straw. Medium long ear, fairly dense, mostly pyramidal, rarely narrowly fish-shaped, isolated examples prismatic. Kernel grey-green to yellowish grey-green, medium long, fairly full: absolute weight fairly high (28 - 38 g.), hectolitre weight fairly high (69 - 75 kg.).

Semi-early variety. Sufficiently resistant to frost and snow mold, fairly resistant to lodging. Suitable for all locations and soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Liberec, Hradec Kralove, Pardubice, Jihlava, Olomouc, Gottwaldov, and Ostrava krajs.

6. Tesov: Hybridized by the former Hybrid Station at Dolni Tesov from the Ruemker winter rye. Allowed in 1929, during the years it was treated only as a German variety, and was again allowed in 1953. Present hybridizer: Hybrid Station at Vetrov, okres Tabor.

Madium long straw. Medium long to long ear, fairly dense, primarily pyramidaly but frequently also narrowly fish-shaped, and occasionally fish-shaped or prismatic. Kernel grey-green to yellowish grey-green, medium long, fairly full: absolute weight medium to low (27 - 37 g.), hectolitre weight medium to low (67 - 75 kg.).

Semi-early. Fairly to sufficiently to frost, sufficiently resistant to lodging. During the year 1956-57 it was acclimatized in the Ceske Budejovice, Plzen, Karlovy Vary, Usti n.L., Hradec Kralove, Pardubice, and Jihlava krajs.

7. Vigl'ase: Hybridized from a native variety from the Zvolen area. Allowed in 1949. Hybridizer: Hybrid Station at Vigl'ase okres Zvolen.

Medium long to long straw. Long ear, thin to very thin, generally prismatic, rarely pyramidal. Kernel grey-green, medium long, fairly full: absolute weight medium to low (27 - 37 g.), hectolitre weight medium to low (67 - 75 kg.).

Semi-early. Sufficiently resistant to frost, less resistant to lodging. During the year 1956-57 it was acclimatized in the Banska Bystrica, Kosice, and Presov krajs.

8. 'Zenit': Hybridized by the former Zemsky Ustav pro Zuslecht'ovani Rostlin/Zeme Institute for Plant Improvement/ at Prerov through individual selection from a cross from Petkus winter rye with Prerov hybrid rye 'H 55'. Allowed in 1948. Present hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov.

Medium long straw. Medium long ear, fairly dense, primarily pyramidal, more rarely fish-shaped and prismatic. Kernel grey-green to yellowish grey-green, medium long, mostly fairly full; absolute weight fairly high (28 - 38 g.), hectolitre weight fairly high (68 - 77 kg.).

Early to semi-early. Fairly resistant to frost and lodging, sufficiently resistant to snow mold. Suitable for all locations and soils. During 1956-57 it was acclimatized in the Jihlava, Brno, Olomouc, Gottwaldov, Ostrava, Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov kraje.

Spring Rye

1. Tesov: Hybridized from a native variety from the Sumava region. Allowed in 1952. Hybridizer: Hybrid Station at Vyklantice, okres Pacov.

Medium long straw, Medium long to short ear, fairly dense to thin, pyramidal, more rarely prismatic, occasionally fish-shaped. Kernel yellowish grey-green, medium long to short, fairly full; absolute weight medium to low (25 -35 g.), hectolitre weight low to fairly high (65 - 75 kg.).

Semi-early. Sufficiently resistant to lodging. Suitable particularly for locations where winter rye often winter kills.

Barley

(Hordeum Vulgare L.)

During 1956-57, in all twenty hybrid varieties of barley were allowed and acclimatized: These included two varieties of winter barley and seventeen varieties of spring barley.

Both the varieties of winter barley belong to the botanical category of four-rowed multi-rowed barley (hordeum tetrastichum).

All the varieties of spring barley belong botanically to two-rowed nodding barley (hordeum distichon nutans) of type 'a' (with basal /stetiçka/ bristle of the kernel long, and covered with long down).

In addition to the twenty allowed varieties, this publication includes descriptions of three restricted varieties of spring barley, whose planting will still be recognized in 1957 and perhaps even later.

In describing the varieties the following degrees of classification were employed:

Height of the Plant: According to the distance from the surface of the ground to the tip of the head we distinguish the plants as: 1. low (under 85 cm.), 2. medium high (85 - 92 cm.), 3. high (above 92 cm.).

Position of the head when completely mature: According to the degree to which their heads hang, the varieties are distinguished as: 1. Almost erect, 2. semi-pendant, and 3. pendant.

Length of the head: 1. short (under 7.5 cm.), 2. medium long (7.5 - 9 cm.), long (over 9 cm.).

Density of the head: According to the number of joints in the rachis of the head over a space of 4 cm. in the middle of it, the varieties are distinguished as: 1. thin (up to 12 joints), 2. fairly dense (12 - 13 joints), 3. dense (above 13 joints).

Length of the Awns: 1. rather short (under 9.5 cm.), 2. Medium long (9.6 - 10.5 cm.), 3. long (over 10.5 cm.).

Coloring of the Tips of the Awns: According to the intensity of the red-violet coloring of the tips of the awns during the period after the head is formed, the varieties are distinguished as: 1. pale (for example Stupice 'Hanak'), 2. fairly strong moderate (for example Nitrian), strong (for example Valtice).

Length of the Kernel: 1. rather short (under 8.7 mm.), 2. medium long (8.8 - 9.3 mm.), 3. long (over 9.3 mm.).

Fineness of the glume : According to the number and fineness of the transverse wrinkles on the glume , the kernels are distinguished as: 1. very fine (with a large number of fine wrinkles), 2. fairly fine, 3. coarse (with only a few coarse wrinkles, or without wrinkles).

Absolute weight of the Kernel: 1. low (up to 38 g.), 2. low to fairly high (38.1 - 40 g.), fairly high (40.1 - 42 g.), 3. fairly high to high (42.1 - 44 g.), 4. high (above 44 g.).

Hectolitre weight: 1. low (up to 67 kg.), 2. low to fairly high (67.1 - 68 kg.), 3. fairly high (68.1 - 68.5 kg.), 4. fairly high to high (68.6 - 73 kg.), 5. high (above 73 kg.).

Content of Nitrogenous Material in the Dried Kernel: 1. rather low, (under 10.5 %), 2. fairly high (10.6 - 11 %), 3. rather high (above 11 %).

Post-harvest Maturing Time of the Kernel (according to Vyzkumny Ustav Oblinarsky/Cereal growers' Research Institute/ in Komeriz): According to the number of weeks necessary after the harvest for the kernel to achieve full germinating ability /klicivost/, the varieties of spring barley are distinguished as: 1. short (3 - 4 weeks), 2. fairly long (4 - 5 weeks), 3. long (5 - 7 weeks).

Period of Maturity of the varieties of winter barley: 1. early (Average period of growth up to 278 days), 2. semi-early (279 - 281 days), 3. late (more than 281 days).

Resistance to Injurious Factors: According to the degree to which the plants lodge and are prone to diseases, and with winter barley, to which they are affected by frost, the varieties are distinguished as: 1. resistant, 2. sufficiently resistant, 3. fairly resistant, 4. less resistant, 5. non-resistant.

Winter Barley

1. Pavlovice: Hybridized by the former Hybrid Station at Velke Pavlovice through individual selection from a cross of the barleys Peragis X (Yugoslav '42' X Caucasus). Allowed in

1952. Present hybridizer: Hybrid Station at Bystrice nad Pernstejnem.

Fairly high straw. Six-rowed head of the four-rowed type, mostly pendant, short to medium long, rather thin, prismatic, tapering towards the tip. Long awns, with tips weakly tinted red during the period after formation. Kernel large, long, with coarse, yellow-whitish glume ; absolute weight fairly high (33.9 - 48.8 g.), hectolitre weight fairly high (55.1 - 70.4 kg.); High content of nitrogenous matter.

Early. Fodder. Resistant to frost and lodging. Sends out strong shoots. During the year 1956-57 it was acclimatized in the Prague, Brno, Olomouc, Gottwaldov, Ostrava, Banska Bystrica, Zilina, Kosice, and Presov krajs.

2. Stupice 'sixrowed': Hybridized by the Hybrid Station at Stupice through individual selection from a winter barley long cultivated at the Pysely estate. Allowed in 1932. Present hybridizer: Hybrid Station at Luzany, okres Prestice.

Fairly high to high straw. Six-rowed ear of the four-rowed type, mostly pendant, short, and fairly dense. long awns, mostly with strongly tinted red-violet tips during the period after formation. Kernel large, long, more slender than the Pavlovice type, with coarse, richly yellow-white glume; absolute weight fairly high to low (32.6 - 47.1), hectolitre weight fairly high to high (51.6 - 71.4 kg.); high content of nitrogenous matter in dried kernel.

Semi-early. Fodder. Sufficiently resistant to frost and lodging. Sends out shoots fairly well to strongly. During 1956-57 it was acclimatized in all krajs in CSR.

Spring barley

The varieties of spring barley are divided, with regard to size and absolute weight of the grain, into three groups: a) varieties with short kernel and with absolute weight under 44 g. (full-grained barleys, Kneifels); b) varieties with fairly large kernel and with absolute weight of 44.1 - 45 g.; c) varieties with large kernel and absolute weight above 45 g..

Varieties with short kernel

1. Celechovice 'Hanak'(205): Hybridized through individual selection from a cross of the barleys Haisa X (Starnov Kneifl X X Nolc 'A'). Allowed in 1956. Hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov.

Fairly high to high straw. Two-rowed head, semi-pendant to pendant, medium long, fairly dense. Medium long awns with tip intensively tinted red-violet in the period after formation. Kernel short, with very fine, clear straw-yellow glume; absolute weight fairly high (33 - 50 g.), hectoliyre weight middling (63 - 72 kg.); fairly high content of nitrogenous matter in the dried kernel.

Early. Very good brewing qualities. Sufficiently resistant to lodging and loose smut. High productivity. During 1956-57 as a new variety it was for the time being only acclimatized in Olomouc kraj.

2. Nitrian: Hybridized through individual selection from a cross of the varieties 'Stupice full-grained' and 'Radosine'. Allowed in 1946. Hybridizer: Hybrid Station at Radosine, okres Topolcany.

Fairly high straw. Two-rowed head, semi-pendant to pendant, medium long, fairly dense. Medium long awns with moderate red-violet tint during the pe iod after formation. Kernel short, with fine, straw-yellow glume; absolute weight fairly high (35 - 45.4 g.); hectolitre weight middling to high (60.3 - 72 kg.); firly-high content of nitrogenous matter in the dried kernel.

Semi-early, with fairly long post-harvest maturing time for the grain. Good to very good brewer qualities. Sends out shoots fairly well. Less resistant to lodging, fairly resistant to loose smut. Particularly suitable for good barley soils and locations. During 1956-57 it was acclimatized in the Nitra kraj.

3. Novy Dvor 'Hanak': Hybridized by the former Hybrid Station at Novy Dvor u Olomouce through individual selection from a cross of the barleys 'Starnov Kneifl' with 'Select Han. III'. Allowed in 1933. Present hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov.

High straw. Two-rowed head, semi-pendant to almost erect, medium long, fairly dense. Medium long awns with tips on the whole strongly tinted during the period after formation. Kernel short to medium long, with fine, straw-yellow glume; absolute weight fairly high (35 - 45.7 g.), hectolitre weight middling (62.5 - 71.6 kg.); fairly high content of nitrogenous matter in the dried grain.

Early to semi-early, with long post-harvest maturing time for the grain. Very good brewer qualities. Sends out shoots fairly well. Fairly resistant to lodging and loose smut. Particularly suitable for middling locations and soils. During 1956-57 it was acclimatized in the Olomouc kraj.

4. Opava: Hybridized by the former Hybrid Station of the Sugar Refinery at Opava through individual selection from a native Hanak barley, acclimatized in rug ed locations of the Ostrava area. Agriculturally introduced in 1900. Present hybridizer: Vyzkumna Stanice Olejnin/Oil-seed Research Station/ CSAZV at Opava.

Fairly high to high straw. Two-rowed head, semi-pendant to pendant, medium long, fairly dense. Medium long awns, with tips strongly tinted red-violet during the period after form-

ation. Kernel short, plump, with fine, straw-yellow glume; absolute weight low to fairly high (35 - 45 g.), hectolitre weight middling to high (61.1 - 73.5 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-late, with short post-harvest maturing time for the grain. Good to very good brewer qualities. Sends out shoots fairly well. Particularly suitable for better soils and locations. During 1956-57 it was acclimatized in the Olomouc and Ostrava krajs.

5. Slovak '802': Hybridized by the Hybrid Station at Sladkovicovo through individual selection from Opava Barley (Kneifl). Allowed in 1946. Present hybridizer: Hybrid Station at Bucany, okres Hlohovec.

Fairly high to high straw. Two-rowed head, semi-pendant to pendant, medium long, rather dense. Mostly rather shasrt awns, with strongly tinted red-violet tips during the period after formation. Short kernel, plump, with fine, clear straw-yellow glume; absolute weight fairly high (35.8 - 47 g.), hectolitre weight middling to high (62.1 - 72.8 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early to early. Very good brewer qualities. Sends out shoots fairly well. Fairly resistant to lodging, sufficiently resistant to loose smut. Suitable for rather dry locations and soils. During 1956-57 it was acclimatised in the Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

6. Stupice 'full-grained': Hybridized by the Hybrid Station at Stupice through individual selection from a cross of Kneifl barley with'Stupicky Hanak'(Select Han. 2). Allowed in 1937. Presnt hybridizer: Hybrid Station at Doksany, okres Roudnice nad Labem.

Fairly high ti high straw. Two-rowed head, semi-pendant to almost erect, medium long, fairly dense. Medium long awns, with moderately tinted red-violet tips during the pe iod afoer formation. Short kernel, with fine, straw-yellow glume; absolute weight low to middling (36 - 45 g.), hectolitre weight middling to high (63.4 - 72.6 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early to semi-late, with short post-harvest maturing time for the grain. Very good brewer qualities. Sprouts fairly well. Sufficiently resistant to lodging and loose smut. Particularly suitable for middling locations and soils. During 1956-57 it was acclimatized in the Prague, Karlovy Vary, Usti n.L., and Pardubice krajs.

Bucany: Hybridized by the former Hybrid Station at Budmerice through individual selection from Opava barley (Kneifl). Allowed in 1946. Restricted in 1956.

Fairly high to high straw. Two-rowed head, semi-pendant to pendant, medium long xx, fairly dense. Medium long awns, with moderately tinted red-violet tips during the period after formation. Short to medium long kernel, with fine straw-yellow glume; absolute weight middling to high (37 - 48.8 g.), hectolitre weight middling to high (60.9 - 72.2 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-xxxearly, with short post-harvest maturing time for the grain. Good to very good b ewer qualities. Sprouts fairly well. Fairly resistant to lodging and loose smut. Particularly xxxxx suitable for middling and somewhat heavy soils in various locations.

Seeding will be recognized for the last time in the Harvest year 1958.

'Hanak Jubilee': Hybridized by the Hybrid Station at Stara Ves through individual selection from a cross of the barleys 'Opava'(Kneifl) with 'Select Han. VIII'. Allowed in 1938. Restricted in 1956.

Fairly high to high straw. Two-rowed head, very pendant, rather long, rather thin. Rather long to long awns, with pale red-violet tinted tips during the period after formation. Fairly short to medium long kernel, with very fine, straw-yellow glume; absolute weight fairly high (37.2 - 56 g.), hectolitre weight low to fairly high (62.5 - 72.2 kg.); rather low content of nitrogenous matter in the dried grain.

Semi-early, with short post-harvest maturing time for the grain. Very good brewer qualities. Sprouts fairly well to strongly. Prone to lodging and loose smut. Particularly suitable for good soils in rather dry locations

Seeding willbe recognized for the last time in the Harvest year 1958.

Varieties with fairly large Kernel

7. Semcice 'Economic': Hybridized through individual selection from a cross of the varieties 'Dobrovice Old Czech' with Danish 'Maya barley'. Allowed in 1956. Hybridizer: Vyzkumny Ustav Reparsky/Beet-grower Research Institute/ CSAZV at Semcice u Dobrovic, okres Mlada Boleslav.

Low straw. Two-rowed head, almost erect, short to medium long, fairly dense to quite dense. Short awns, w th red-violet tinted tips during the period after formation. Fairly large to rather smalle kernel, rather slender, with coarse glume; absolute weight low to middling (34.8 - 45.5 g.), hectolitre weight low (61 - 71 kg.); low content of nitrogenous matter in the dried grain.

Semi-late. Somewhat low brewer quality. Thoroughly resistant to lodging, sufficiently resistant to loose smut. When fully ripe the heads are apt to break off. During 1956-57 it was acclimatized in the potato growing and hilly regions of Liberec kraj.

8. Slovak 'Danube Market': Hybridized through individual selection from a cross of the barleys (Akkermann 'Danubia' X X Diosec '738') X 'Danubia'. Allowed in 1946. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Fairly high straw. Two-rowed head, semi-pendant to almost erect, medium long, fairly dense. Short awns, with markedly red-violet tinted tips during the period after formation. Medium long kernel, with fine, straw-yellow glume; absolute weight middling to high (36 - 48.8 g.); hectolitre weight middling to high (64.4 - 73.5 kg.); rather low content of nitrogenous matter in the dried grain.

Semi-late, with medium long post-harvest maturing time for the grain. Very good brewer qualities. Sprouts fairly well. Sufficiently resistant to lodging, less so to loose smut. Suitable for all except fairly dry soils and locations. During 1956-57 it was acclimatized in the Usti n. L., Brno, Gottwaldov, Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

9. Slovak 'Fine': Hybridized through individual selection from a cross of the varieties ''Diosec 738' and 'Diosec 237'. Allowed in 1946. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Fairly high straw. Two-rowed head, semi-pendant, short, dense. Medium long awns, with pale to very pale red-violet tinted tips in the period after formation. Medium long to rather short kernel, with fine, straw-yellow glume; absolute weight fairly hig (35.9 - 45.4 g.), hectolitre weight middling to high (64.4 - 73.3 kg.); fairly high content of nitrogenoud matter in the dried grain.

Semi-garly with short post-harvest maturing time for the grain. Very good brewer qualities. Sprouts fairly well. Sufficiently resistant to lodging, less so to loose smut. Particularly suitable for middling and rather dry locations and soils. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

10. Slovak 'Hanak': Hybridized through individual seletion from a native Hanak barley cuttivated for years at Pysely. Allowed in 1926. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Fairly high t high straw. Two-rowed head, semi-pendant to pendant, medium long, fairly dense. Medium long to long awns, with markedly light red-violet tinted tips during the period after formation. Medium long kernel, with fine, yellow glume tinted greyish; absolute weight fairly high (37.3 - 46.0 g.), hectolitre weight

46.8 g.), hectolitre weight middling to high (65 - 72.8 kg.); rather high content of nitrogenous matter in dried grain.

Semi-late, with short post-harvest maturing time for the grain. Sprouts fairly well to weakly. Sufficiently resistant to lodging, fairly resistant to loose smut. Suitable for all but the drier locations and soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Liberec, Hradec Kralove, and Pardubice kraje.

11. 'Triumf': Hybridized by the former Hybrid Station at Zidlochovice, through individual selection of a cross of the varieties 'Proskovec Hanak' X 'Tschermak Hanna X'Kargyn'. Allowed in 1928. Present hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

High straw. Two-rowed head, semi-pendant, long, fairly thin to thin. Short awns, with intensively red-violet colored tips during the period after formation; Medium long kernel, full, with very fine, straw-yellow glume; absolute weight fairly high (34.9 - 46 g.), hectolitre weight middling to high (60.3 - 72.6 kg.); fairly high content of nitrogenous matter in the d ied grain.

Semi-early, with long post-harvest maturing time for the grain. Very good brewer qualities. Sprouts fairly well. Less resistant to lodging and loose smut. Particularly suitable for middling locations, will not tolerate damp and strong soils. During 1956-57 it was acclimatized in the Jihlava, Brno, Olomouc, and Gottwaldov kraje.

Varieties with large kernel

12 'Hero': Hybridized through individual selection from a cross of the barleys 'Detenice Hana' X Kargym with a native variety from the neighbourhood of liban. Allowed in 1948. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Fairly high to high straw. Two-rowed head, almost erect, medium long, dense. Long awns, with strongly red-violet tinted tips during the period after formation. Medium long to quite long kernel, with fine, rather light yellow glume; absolute weight middling to high (37.2 - 49 g.), hectolitre weight middling to high (63.8 - 73.9 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early, with short post-harvest maturing time for the grain. Very good brewer qualities. Sprouts fairly well to strongly. Less resitant to lodging, fairly resistant to loose smut. Particularly suitable for middling locations, will not tolerate damp and strong soils. During 1956-57 it was acclimatized in the Liberec, Hradec Kralove, and Pardubice kraje.

13. 'Hanak' Kargyn: This is one the Hanna X Kargyn types of barley of Prof. Tschermak, hybr dized through individual selection from a cross of a native Hanak barley with an Asia-Minor barley from the neighbourhood of Kargyn. Allowed in 1919. Hybridizer: Hybrid Stations at Detenice, okres Jicin, and at Kralice na Hane, okres Prostejov.

High straw. Two-rowed head, pendant, long, thin. Long awns with pale red-violet tinted tip during the period after formation. Long kernel, large, with fine, straw-yellow glume; absolute weight middling to high (36.7 - 50 g.), hectolitre weight fairly high (62.3 - 73.1 kg.); quite high content of nitrogenous matter in the dried grain.

Semi-late, with long post-harvest maturing time for the grain. Good to very good brewer qualities. Sprouts strongly. Fairly resistant to lodging, prone to loose smut. Particularly suitable for middling and lower locations and good soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Liberec, Pardubice, Brno, Olomouc, and Gottwaldov kraje.

14. Kastice: Hybridized through individual selection from a native variety cultivated in the dry region around Podborany. Allowed in 1932. Hybridizer: Hybrid Station at Kastice, okres Podborany.

Fairly high straw. Two-rowed head, semi-pendant to almost erect, medium long, fairly dense. Long awns, with quite strongly red-violet tinted tips during the period after formation. Long kernel, large, with fine, straw-yellow glume; absolute weight middling to high (36.8 - 50 g.), hectolitre weight low to middling (61.5 - 72.2 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early, with short post-harvest maturing time for the grain. Good to very good brewer qualities. Sprouts strongly. less resistant to lodging, resistant to loose smut. Suitable for various locations and soils, even in fairly dry areas. During 1956-57 it was acllimatized in the Prague, Plzen, Karlovy Vary, and Usti n. L. krajs.

15. Proskovec 'Hanak': Hybridized by the former Hybrid Station at Kvasice u Kromerize through individual selection from a cross of a native Hanak barley with the barley Hanna X X Kargyn and Schwarzenberg. Allowed in 1919. Present hybridizer: Hybrid Station at Cejce, okres Hodonin.

Fairly highito high straw. Two-rowed head, pendant, long, and thin. Very long awns, with pale red-violet tinted tips during the period after formation. Long kernel, with fine, straw-yellow glume; absolute weight generally high (37.8 - 50 g.), hectolitre weight middling to high (62.3 - 72.6 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early to semi-late, with long post-harvest maturing time for the grain. Very good brewer quality. Sprouts fairly well. Less resistant to lodging, lesss resistant to non-resist-

ant to loose smut. Suitable for all locations and soils. During 1956-57 it was acclimatized in the Jihlava, Gottwaldov, and Ostrava krajs.

16. Radosine: Hybridized through individual selection from a native variety from the neighbourhood of Hlohovec. Allowed in 1943. Hybridizer: Hybrid Station at Radosine, okres Topolcany.

Fairly high straw. Two-rowed head, almost erect, fairly long, thin. Short awns, with pale red-violet tinted tips during the period after formation. Long kernel, somewhat slender, with lightly veined yellowish glume toughed with pale greyish; absolute weight fairly high (35.9 - 46.2 g.), hectolitre weight middling to high (60.3 - 72.7 kg.); rather high content of nitrogenous matter in the dried grain.

Semi-early, with long post-harvest maturing time for the grain. Good brewer quality. Sprouts fairly well. Prone to lodging and loose smut. Particularly suitable for fairly heavy to lighter soils in all except the driest locations. During 1956-57 it was acclimatized in the Kosice and Presov krajs.

17. Slovak 'Quality': Hybridized through individual selection from a cross of the barleys 'Diosec 496' with 'Diosec 738'. Allowed in 1946. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Fairly high to high straw. Two-rowed head, almost erect, rather short, dense. Fairly long awns, with pale red-violet tinted tips during the period after formation.. Long Kernel, with fine straw-yellow glume; absolute weight middling to high (38.2 - 47.7 g.), hectolitre weight middling to high (64.4 - - 76.6 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early, with fairly long post-harvest maturing time for the grain. Very good brewer quality. Sprouts fairly well to strongly. Fairly resistant to lodging, sufficiently resistant to loose smut. Particularly suitable for middling locations and soils. During 1956-57 it was acclimatized in the Bratislava, Banska Bystrica, Zilina, Kosice, and Presov krajs.

18. Valtice: Hybridized by the Hybrid Station at Valtice through individual selection from a cross of the barleys Valtice 'B' X Starnow Kneifl. Allowed in 1938. Present hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

Low straw. Two-rowed head, semi-pendant to pendant, (in drier locations the head forms with difficulty, and is almost erect), mostly rather short, fairly dense. Long awns, with markedly red-violet tinted tips in the period after formation. Large kernel, longer to long, with fine straw-yellow glume; absolute weight middling to high (37.1 - 50 g.), hectolitre weight middling to high (59.2 - 72.2 kg.); rather low content of nitrogenous matter in the dried grain.

Early, with fairly long post-harvest maturing time for the grain. Very good brewer quality. Sprouts fairly well. Resistant to lodging, less resistant to loose smut. Suitable for all locations with good soil even in dry regions. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Usti n.L., Hradec Kralove, Jihlava, Pardubice, Brno, Olomouc, Gottwaldov, and Ostrava krajs.

Ratbore: Hybridized by the former Hybrid Station at Ratbore through individual selection from a native Kvasice barley. Allowed in 1925. Restricted in 1956.

Fairly high straw. Two-rowed head, pendant, longer, rather thin. Fairly long awns, with bright red-violet tinted tips in the period after formation. Large kernel, long, with slightly veined yellow glume, with pale greyish tinge; absolute weight middling to high (36.5 - 49.4 g.), hectolitre weight usually rather low (61.3 - 72.4 kg.); fairly high content of nitrogenous matter in the dried grain.

Early to semi-early, with short post-harvest maturing time for the grain. Good brewer qualities. Sprouts strongly.

Less resistant to lodging, and prone to loose smut. Particularly suitable for the better drier soils.

Seeding can be recognized for the last time in the Harvest year 1958.

Oats

(Avena Sativa L.)

During 1956-57 ten hybrid varieties of oats were allowed and acclimatized.

All the varieties belong to the botanical category of panicled, spreading seed oats (Avena sativa ssp diffusa).

The varieties are divided according to the color of their glumes into two groups: a) yellow oats (three varieties) and b) white oats (seven varieties).

In addition to the ten allowed varieties, this publication contains descriptions of two restricted varieties, whose seeding can be recognized still in 1957.

In describing the varieties the following degrees of classification were employed:

Length of the Straw: 1. short (up to 100 cm.), 2. medium long (101 - 110 cm.), 3. long (over 110 cm.).

Shape of the Panicle: (determined in the stage of milk ripeness, when it is most characteristic of the variety), 1. Erect and closed panicle (in which the lower and middle branches are generally of the same length, and hang at an acute angle from the central rachis of the panicle), 2. Pyramidal panicle (in which the lower branches are longer than the middle ones, and hang at a rather greater angle from the central rachis than in the erect panicle), 3. Oval panicle (in which the middle branches are longer than the lower ones, and hang from the central rachis at approximately the same angle as in the pyramidal panicle).

Length of the Panicle: 1. short (under 15 cm.), 2. medium long (15.1 - 17 cm.), 3. long (above 17 cm.).

Length of the Kernel: 1. short (under 12 mm.), 2. medium long (12.1 - 13.5 mm.), 3. long (above 13.5 mm.).

Absolute Weight of the Kernel: 1. low (under 26 g.), 2. fairly high (26.1 - 30 g.), 3. high (above 30 g.).

Hectolitre Weight of the Kernel: 1. low (under 45 kg.), 2. fairly high (45.1 - 50 kg.), 3. high (above 50 kg.).

Chaff Percentage (of the total weight of the grain): 1. low (under 27 %), 2. middling (27.1 - 30 %), 3. high (above 30 %).

Content of Nitrogenous Matter in the Dried Grain: 1. low (under 11 %), 2. middling (11.1 - 13 %), 3. high (above 13 %).

Period of Maturity of the Varieties: 1. early (with averege period of growth under 110 days), 2. semi-early (with average of 111 - 113 days), 3. semi-late (114 - 116 days), 4. late (above 116 days).

Resistance to Injurious Factors: According to the degree to which the plants lodge and are prone to diseases, the varieties are distinguished as: 1. resistant, 2. sufficiently resistant, 3. fairly resistant, 4. less resistant, 5. non-resistant.

Yellow oats (yellow-glumed, yellow-grained)

1. Czech Oats: Hybridized through individual selection from a variety of Petkuser Flaemingstreue acclimatized in this country. Allowed in 1952. Hybridizer: Hybrid Station at Krukanice, okres Stribro.

Fairly high to low straw. Panicle pimarily pyramidal, more rarely erect, closed, medium long to long. Yellow kernel medium long, base of the kernel usually slightly downy; absolute weight middling (25 - 35 g.), hectolitre weight fairly high (39 - 55 kg.); chaff percentage middling to low; content of

of nitrogenous matter in the dried grain fairly high.

Semi-early to early. Sufficiently resistant to lodging and rust, fairly resitant to loose smut. Suitbble for all locations and soils. During 1956-57 it was acclimatized in all krajs in CSR.

2. Chlumec 'Yellow': Hybridized through individual selection from a cross of the oats 'Petkus Yellow' with 'Kirsch Pfiffelbas Yellow'. Allowed in 1929. Hybridizer: Hybrid Station at Chlumec n. Cidl., okres Novy Bydzov.

Fairly high straw. Panicle mostly erect, closed, and oval, medium long. Yellow kernel, fairly long to short, base of the kernel usually downy; absolute weight low (22 - 32 g.), hectolitre weight high (39 - 53 kg.); fair content of nitrogenous matter in the dried grain.

Semi-early. Sufficiently resistant to lodging, rust, and loose smut. Suitable for all locations and soils, except maize-growing regions. During 1956-57 it was acclimatized in the Liberec, Hradec Kralove, Pardubice, Banska Bystrica, and Zilina krajs.

3. Radosine 'Yellow': Hybridized through individual selection from a native variety from the neighbourhood of Radosine. Allowed in 1931. Hybridizer: Hybrid Station at Radosine, okres Topolcany.

Fairly high to low straw. Panicle generally pyramidal, more rarely oval, medium long. Yellow kernel, medium long, base of the kernel without down.; absolute weight low (22.5 - 33 g.), he tolitre weight fairly high (36 - 53 kg.); chaff percentage low, , middling content of nitrogenous matter in the dreid grain.

Semi-early. Sufficiently resistant to lodging and rust, less resitsant to loose smut. Suitable for all soils, and part-

icualrly for drier locations. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, and Presov krajs.

White Oats (white-glumed, white-grained)

4. Horice: Hybridized by the former Vyzkumna Stanice Zemedelska/Agricultural Research Station/ at Horice v Podkrkonosi through individual selection from a native variety from near Horice. Allowed in 1930. Present hybridizer: Hybrid Station at Vlcice, okres Trutnov.

Fairly high straw. Panicle most often oval, long. Kernel white, medium long, base of the kernel downy; absolute weight fairly high (26.5 - 37 g.), hectolitre weight middling (39 - 55 kg.); fairly high content of nitrogenous matter in the dried grain.

Semi-early to semi-late. Sufficiently resistant to lodging, rust, and loose smut. Suitable for all soils and locations, except in maize growing areas. During 1956-57 it was acclimatized in the Prague, Hradec Kralove, Pardubice, Jihlava, Olomouc, Ostrava, Banska Bystrica, Zilina, and Kosice krajs.

5. Irbit: Hybridized by the Hybrid Station at Stupice through individual selection from Russian Irbit oats. Allowed in 1934. Present hybridizer: Hybrid Station at Kostelec u Krizku, okres Prague-East.

Fairly high straw. Panicle most often pyramidal, fairly long. Kernel white, medium long, base of the kernel downy; absolute weight fairly high (25 - 34.5 g.), hectolitre weight middling (39 - 55 kg.); high content of nitrogenous matter in the dried grain.

Semi-late. Sufficiently resistant to lodging and rust, less resistant to loose smut. Particularly suitable for middling and good soils in central and high locations with sufficient

precipitation. During 1956-57 it was acclimatized in the Prague, Plzen, Hradec Kralove, and Pardubice kraje.

6. Nalzov: Hybridized through individual selection from Struby Schlanstedt oats. The improvement was initiated at the former Hybrid Station at Nalzov, later transferred to and completed at the Hybrid Station at Stupice. Allowed in 1928. Hybridizer: Hybrid Station at Vetrov, okres Tabor.

Fairly high to high straw. Panicle most often pyramidal, long. Kernel white, medium long to long, base of the kernel covered in varying degrees with down; absolute weight high (27 - 38 g.), hectolitre weight middling to low (38 - 54 kg.); fairly high content of nitrogenous matter in the dried grain.

Late. Very resistant to lodging, rust, and loose smut. Suitable for all locations and soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Liberec, Olomouc, Gottwaldov, Ostrava, Bratislava, Nitra, Zilina, Kosice, Presov kraje.

7. 'Express'/Rychlik/: Hybridized by the Hybrid Station at Stupice through individual selection from a native variety from Zajecice. Allowed in 1939. Present hybridizer: Hybrid Station at Slapy, okres Tabor.

Fairly high straw. Panicle mostly erect, closed, medium long. Kernel white, medium long, base of the kernel lightly down-covered; absolute weight middling to high (26.5 - 36 g.), hectolitre weight fairly high (44 - 56 kg.); middling percentage of chaff; fairly high content of nitrogenous matter in the dried grain.

Early to semi-early. Thoroughly resistant to lodging, resistant to rust, less resistant to loose smut. Particularly suitable for middling and better soils in central and higher

locations with sufficient precipitation. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Karlovy Vary, Liberec, Hradec Kralove, Brno, and Olomouc krajs.

8. Studnice: Hybridized by the former Zemsky Ustav pro Zuslecht'ovani Rostlin/Zeme Institute for Plant Improvement/ at Prerov from a native variety from Studnie u Nove Mesto na Morave. Allowed in 1932. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Fairly high straw. Panicle most often oval, medium long to short. Kernel white, medium long, base of the kernel not covered with down; absolute weight high (26.5 - 38.5 g.), hectolitre weight fairly high (41 - 55 kg.); high content of nitrogenous matter in the dried grain.

Semi-late. Sufficiently resistant to lodging and rust, less resistant to loose smut. Particularly suitable for better soils in central and higher locations with plenty of precipitation. During 1956-57 it was acclimatized in the Olomouc kraj.

9. Stupice: Hybridized through individual selection from a native variety. Allowed in 1923. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Fairly high to high straw. Panicle most often erect, closed, medium long. Kernel white, medium long, base of the kernel not covered with down; absolute weight high (27 - 40)g.), hectolitre weight middling to low (41 - 52 kg.); middling content of nitrogenous matter in the dried grain.

Late to semi-late. Sufficiently resistant to lodging, rust, and loose smut. Particularly suitable for middling and lighter soils, and higher locations. During 1956-57 it was acclimatized in the Ceske Budejovice, and Usti n. L. krajs.

10. Valecovo: Hybridized by the Research Station at Valecovo u Havlickova Brodu through individual selection from a native variety from the neighbourhood of Jaromerice. Allowed in 1928. Present hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

High straw. Panicle mostly oval, medium long. Kernel white, medium long, base of the kernel slightly downy; absolute weight fairly high to low (23 - 35.5 g.), hectolitre weight fairly high (37 - 56 kg.); middling to high content of nitrogenous matter in the dried grain.

Late. Sufficiently resistant to lodging and rust, fairly resistant to loose smut. Suitable for all locations and soils. During 1956-57 it was acclimatized in the Ceske Budejovice, Liberec, Jihlava, Brno, Gottwalov, and Ostrava krajs.

Detenice: Hybridized by the Hybrid Station at Detenice through individual selection from Russian Hilton oats. Allowed in 1923. Restricted in 1956.

Fairly high ti high straw. Panicle mostly oval, medium long. White kernel, medium long, base of the kernel without down; absolute weight fairly high (26 - 38 g.), hectolitre weight fairly high (42 - 56 kg.); middling percentage of chaff; Middling to high content of nitrogenous matter in the dried grain.

Late. Sufficiently resistant to lodging and rust, less resistant to loose smut. Particularly suitable for better soils in central locations with sufficient precipitation.

Seeding of this variety can be recognized for the last time in the harvest year 1957.

Tabor: Hybridized by the Hybrid Station at Slapy u Tabora through individual selection from svaloef 'Victory' oats which have long been cultivated at the Dub Estate. Allowed in 1929. Restricted in 1956.

Fairly high straw. Panicle most often pyramidal, medium long. White kernel, medium long, base without down; absolute weight fairly high (25 - 39.5 g.), hectolitre weight fairly high (44 - 56 kg.); middling percentage of chaff; middling to high content of nitrogenous matter in the dried grain.

Late to semi-late. Sufficiently resistant to lodging, rust, and loose smut. Particularly suitable for middling and heavier soils in rather high locations.

Seeding of this variety can be recognized for the last time in the harvest year 1957.

Maize

(Zea Mays L.)

During 1956-57 in all fifteen hybrid varieties of maize were allowed and acclimatized. In our descriptions these are divided according to botanical characteristics into four groups: a) varieties of hard corn (Zea mays var. indurata), eight varieties; b) varieties of horse tooth/corn/ (Zea mays var.indentata) three varieties; c) varieties of pop-corn (Zea mays everta, subvar. gracillima) one variety; d) intervariety-hybrids-- three.

In describing the characteristics and features of the varieties the following degrees of classification were employed:

Height of the Stem: 1. low (with average height under 150 cm.) 2. fairly high (170 - 190 cm.), 3. high (above 200 cm.).

Thickness of the Stem: 1. weak (for instance 'Stupice Early'), 2. fairly strong (Valtice), 3. strong (Bucany horse-tooth).

Length of the Leaves: 1. short (for instance Stupice Early) 2. medium long (Czech white horse-tooth), 3. long (Valtice).

Breadth of the leaf: 1. narrow (for instance Stupice Early), 2. fairly broad (Slovak Yellow), 3. broad (Czech white horse-tooh).

Type of Panicle: According to the size of the panicle and the number of its branches, the panicles are distinguished as: 1. small with few branches (Stupice Early), 2. small with many branches (Trebisovo), 3. large with few branches (Kocova Early), 4. large with many branches (Valtice)

Color of Anthers and Stigmas: Anthers 1. light yellow, 2, red, or 3. vari-colored, i.e. light yellow and red in various combinations, and red in various shades; stigmas 1.green, 2. red, and 3. vari-colored.

Placement of the Ears: According to how far from the ground the ears are placed on the plant, the placement is characterized as: 1. low (below 30 cm.), 2. fairly high (30 - 60 cm.),

3. high (60 - 100 cm.), 4. very high (above 100 cm.).

Position of the Ear: According to the angle, at which its the mature ear hangs from the stem of the plant, position is characterized as: 1. erect (Ear hangs at an acute angle from the stem), 2. semi-pendant (angle approaches 90°), 3. pendant (obtuse angle).

Husk (protective leaf envelope of the ear): 1. inconsiderable (for example in varieties of horse-tooth), 2. average (Hybrid Valtice X Hodonin Yellow Horse-tooth), 3. considerable (Kocovo Early).

Shape of the Ear: 1. conical (for example 'Valtice'), 2. slightly conical (as in most varieties), 3. cylindrical (Kocovo Early).

Length of the Ear: 1. short (average length under 17 cm.), 2. medium long (up to 20 cm.), 3. medium long to long (up to 22 cm.), 4. long (above 22 cm.),

Thickness of the Ear: 1. weak (for example Slovak White Pearl), 2. fairly strong (most varieties), 3. strong (Valitice).

Thickness of the Cob: /same categories and examples/

Number of Kernels in a Row: 1. low (average number of kernels up to 35), 2. middling (up to 40), 3. high (above 40).

Proportion of Grain in the Ear: According to the percentage of the total weight of the ear which is formed by the grain, the proportion is distinguished as 1. low (up to 74 %), 2. low to middling (up to 76 %), middling (up to 78 %), 4. middling to high (up to 80 %), 5. high (above 80 %).

Size of the Kernel: 1. small (absolute weight under 200 g.), 2. fairly large (up to 300 g.), 3. large (above 300 g.).

Horniness of the Kernel: 1. slightly horny (as in Bucany Horse-tooth), 2. slightly horny to semi-horny (Hybrid Valtice X X Hodonin Yellow Horse-tooth), 3. semi-horny (Stupice Early), 4. semi-horny to very horny (Slovak Yellow), 5. Very horny (Slovak White Pearl).

Absolute Weight of the Kernel: 1. low (under 200 g.), 2. fairly high (201 to 300 g.), 3. high (above 300 g.).

Hectolitre Weight: 1. low (under 70 kg.), 2. rather low (71 - 72 kg.), 3. fairly high (73 - 74 kg.), 4. quite high (75 - 76 kg.), 5. high (above 76 kg.).

Content of Nitrogenous Matter in the Dried Kernel: 1. rather low (under 11.5 %), 2. middling (11.6 - 12.5 %), 3. quite high (above 12.5 %).

Oil/tuk/ Content of the Dried Kernel: 1. rather low (under 4.5 %), 2. middling (4.6 - 5 %), 3. quite high (above 5 %).

Period of Maturity of the Variety: 1. early (from the second day after seeding until full maturity of the majority of the plants, (75 %), 125 days), 2. semi-early (126 - 135 days), 3. semi-late ((136 - 140 days), 4. late (141 - 145 days), 5. very late (above 145 days).

Rapidity of the Initial Growth: According to the height which the plants have reached after only 60 days of growth, they are distinguished as: 1. rapid (example:Kocovska Early), 2. fairly rapid (Czech White Horse-tooth), 3. fairly slow (Slovak Yellow), 4. slow (Slovak White Pearl).

Resistance to Corn Smut: According to theddegree to which they are affected, the varieties are termed: 1. sufficiently resistant (Trebisovo), 2. fairly resistant (most varieties), 3. less resistant (Stupice Early).

Productivity of the Varieties: According to multi-annual grain yields as determined from the State variety tests made in the corn production areas, the productivity of the varieties is termed: 1. low (average yield of grain under 40 q/ha), 2. middling (up to 45 q/ha), 3. good (up to 50 q/ha), 4. high (above 50 q/ha).

Varieties of Hard Corn (Zea mays var. indurata)

1. Bucany Yellow: Hybridized through a cross of Slovak Large-grain corn, and Fary Budyne corn. Allowed in 1952. Hybridizer: Hybrid Station at Bucany, okres Hlohovec.

Fairly high stem (138 - 222 cm.), fairly strong. Usually there are 8 - 9 long, fairly broad leaves on the plant. Large panicle with either many or few branches; anthers most often yellow green, stigmas mostly green.

1 - 2 ears per plant; placed fairly high and on long spike-like stalks; raised to semi-pendant when mature; considerable husk. Almost cylindrical to slightly conical, long to very long, fairly strong, eight-rowed, occasionally ten-rowed; cob fairly strong, white. Number of kernels in a row middling to high; proportion of grain in the ear low.

Kernel yellow, remarkable large, wider than long, flat, semi-horny; absolute weight high (239-440 g.), hectolitre weight rather low (60 - 76 kg.). Content of nitrogenous matter in the dried grain middling; content of oil middling to high.

Semi-early variety (130 - 152 days) with rapid initial growth. Sprouts strongly. Sufficiently resistant to corn smut. Gives fairly yield of grain. It is suitable for favoured locations. When raised for grain. When raised for green manure or silage, it can be planted in less favoured regions. During 1956-57 it was acclimatized in the Bratislava and Nitra krajs.

2. Celechovice ADQ: Hybridized through a cross from Adaska corn from Quebec. Allowed in 1954. Hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov

Rather low stem (114 - 192 cm), weak to fairly strong. There are ordinarily 7 short, narrow leaves on the plant.

Panicle usually small, with few branches. Anthers and stigmas vari-colored, though most often green.

1 - 2 ears per plant, placed low to fairly high, raised when mature, and with considerable husk. Most often slightly conical or cylindrical, medium long, fairly strong, eight-rowed, though occasionally ten- and twelve-rowed; cob fairly strong, white. Number of kernels per row low, proportion of grain in the ear middling.

Kernel pale yellow, large, wider than long, full, semi-horny; absolute weight quite high (278 - 412 g.), hectolitre weight middling (65 - 78 kg.). Content of nitrogenous matter and oil-content middling.

Early variety (104 - 141 days) with fairly rapid initial growth. Sprouts strongly. Fairly resistant to corn smut. Gives good grain yield. When raised for grain it is suitable for less favoured locations and transitional plantings, and in corn-growing areas it may even be sown late after plowing under winter growth. Must be sown rather thickly into drill 60 X 25 cm., or into nest 60 X 50 to 60 X 60 cm. per two plants. When raised for silage, it is suitable even for less favoured regions. During 1956-57 it was acclimatized in the Brno, Olomouc, Gottwaldov, Ostrava, and Zilina krajs.

3. Hodonin 'Florentinka': Hybridized by the former Hybrid Station at Velke Pavlovice through a cross of 'Florentinka' with a Southern-Moravian native variety. Allowed in 1039. Hybridizer: Hybrid Station at Cejce, okres Hodonin.

Fairly high stem (138 - 225 cm.), fairly strong to rather weak. There are as a rule 8 - 9 medium long, narrow leaves. Large panicle with both few or many branches. Anthers ans stigmas vari-colored, though most often yellow green.

1 - 2 ears per plant, set fairly high, erect to semi-pendant, average husk. Slightly conical to cylindrical, medium long to long, fairly strong, eight-rowed, though occasionally ten-rowed; cob fairly strong, white. Number of kernels per row middling, proportion of grain in the ear low to good.

Yellow kernel, large, wider than long, flat, semi-horny to very horny; absolute weight quite high (329 - 410 g.), hectolitre weight middling (65 - 76 kg.); content of nitrogenous matter middling, oil-content middling to rather high.

Semi-early variety (109 - 150 days), with fairly rapid initial growth. Sprouts strongly. Fairly resistant to corn smut. Gives middling grain yield. When raised for grain it is suitable for rather favoured locations; when raised for silage, it can be planted in less favoured locations. During 1956-57 it was acclimatized in the Gottwaldov kraj.

4. Kocovec 'Early': Hybridized through a cross from the Chiemgau variety with the Baden variety. Allowed in 1952. Hybridizer: Hybrid Station at Kocovec, okres Nove Mesto nad Vahom.

Low to fairly high stem (120 - 210 cm.), weak to fairly strong. Generally there are 7 - 8 long, fairly broad leaves on the plant. Large panicle, most often with few branches. Anthers usually reddish, stigmas more often green.

1 - 2 ears per plant, set fairly high, erect to pendant when mature, inconsiderable husk. Most often cylindrical, medium long to long, weak to fairly strong, eight-rowed, though occasionally twelve-rowed; cob strong, white. Number of kernels per row middling; proportion of grain in the ear middling to high.

Yellow kernel, large, wider than long, semi-horny, full; absolute weight rather high (280 - 404 g.), hectolitre weight middling (68 - 76 kg.); middling content of nitrogenous matter and oil.

Early to semi-early variety (106 - 140 days), with rapid to very rapid initial growth. Sprouts strongly. Fiarly resistant to corn smut. Gives good grain yield. When raising for grain, it is suitable even for beet-growing areas, and in corn-growing areas even for late sowing after plowing under of winter crop. When raised for green matter or silage it is suitable even for less favoured areas. Must be sown rather thickly into drill 60 X 30 cm., or into nests 60 X 60 cm. per two plants. During 1956-57 it was acclimatized in the Prague, Karlovy Vary, Usti n. L., Hradec Kralove, Pardubice, Brno, Olomouc, Gottwaldov, Ostrava, Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

5. Slovak 'Yellow': Hybridized from a cross of Pennsylvanian corn with Fleischmann Horse-tooth. Allowed in 1946. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

High stem (158 - 273 cm.), fairly strong. Generally there are 10 - 11 long, fairly broad leaves . Large panicle with many branches. Anthers vari-colored, mostly reddish, stigmas most often green.

Usually one ear per plant, high set, when mature usualy semi-pendant, inconsiderable to average husk. Most often cylindrical, long, fairly strong, generally twelve-rowed; cob strong, white. Number of kernels per row high; proportion of grain in ear middling.

Light orange yellow kernel, fairly large, about as wide as it is long, flat, semi-horny to very horny; absolute weight

middling (227 - 350 g.), hectolitre weight rather high (64 - - 79 kg.); content of nitrogenous matter rather low to middling, oil content middling.

Late variety (128 - 158 days) slow iniatial growth. Sprouts strongly. Fairly resistant to snow smut. Gives good grain yields, which, however, ripen only in the most favoured parts of the corn-growing areas. The variety is thus suitable only for these locations when grown for grain or silage. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Kosice, and Presov.

6. Stupice 'Early': Hybridized by the Hybrid Station at Stupice from a cross of a native Budine variety and a Baden corn. Allowed in 1946. Present hybridizer: Hybrid Station at Doksany, okres Roudnice nad Labem.

Low stem (110 - 180 cm.), weak. There are usually 6 - 7 short, narrow leaves. The panicle is small with few branches. The anthers are vari-colored, and the stigmas are green.

Most often 1 - 2 ears per plant, low set, erect when mature, considerable husk. Predominantly slightly conical, medium long, weak to fairly strong, generally eight-rowed, occasionally ten-rowed; cob weak, white. Number of kernels per row low, proportion of grain in the ear high.

Yellow kernel, large, wider yhan long, full, semi-horny; absolute weight rather high (283 - 390 g.), hectolitre weight middling (68 - 77 kg.); content of nitrogenous matter and oil middling.

Early to very early variety (101 - 139 days), with slow initial growth. Sprouts fairly well. Less resistant to corn smut. For grain production it is suitable even for less favoured locations. It is sure to ripen and give a good yield even there. Must be somewhat thickly sown into drills 60 x 25, or into nests

60 - X 50 cm. During 1956-57 it was acclimatized in the Prague, Karlovy Vary, Usti n. L., Hradec Kralove, Pardubice, Brno, Olomouc, and Ostrava krajs.

7. Trebisovo: Hybridized through selection from the Canadian 'Quebec 28' corn. Allowed in 1941. Hybridizer: Hybrid Station at Trebisovo.

Stem low to fairly high (120 - 220 cm.), weak to fairly strong. On the plant there are ordinarily 8 - 9 fairly long, narrow leaves. The panicle is small with many branches. Anthers mostly reddish, stigmas mostly green

1 - 2 ears per plant, set fairly high, erect to pendant when mature, considerable husk. Generally slightly conical, to cylindri al, medium long, fairly strong, mostly twelve-rowed; cob fairly strong, white. Number of kernels per row middling, proportion of grain in the ear middling.

Yellow ear, small to fairly large, width same as length, full, semi-horny to very horny; absolute weight rather low (187 - 312 g.), hectolitre weight quite high (69 - 78 kg.). Rather high content of nitrogenous matter and oil.

Early variety (103 - 140 days) with fairly rapid initial growth. Sprouts very strongly. Sufficiently resistant to corn smut. Gives good grain yield. When raising for grain it is suitable even for the warmer rotation areas, and in corn growing regions, for quite late sowing after plowing under of winter growth. When grown for green matter or silage it is suitable even for less favoured areas. Must be sown into hills 60 X 30 cm, and into nests 60 X 30 cm per two plants. During 1956-57 it was acclimatized in the Kosice and Presov krajs.

8. Valtice 'C Strain': Hybridized through a cross of a native Valtice variety with 'Triumf' corn. Allowed in 1931.

Hybridizer: Hybrid Station at Valtice, okres Mikulov.

Fairly high stem (135 - 260 cm.), fairly strong. There are ordinarily 8 - 9 long broad leaves on the plant. The panicle is large with many branches. The anthers are vari-colored, the stigmas mostly green.

Usually only one ear per plant, set fairly high, when mature erect to semi-pendant, considerable husk. Almost conical, long, strong, twenty-rowed; cob strong, white. Number of kernels per row middling, proportion of grain in the ear low.

Yellow kernel, fairly large, somewhat wider than long, full, semi-horny; absolute weight middling (277 - 362 g.), hectolitre weight middling (64 - 77 kg.). Content of nitrogenous matter and of oil middling.

Semi-early variety (120 - 150 days) with rapid initial growth. Sprouts strongly. Fairly resistant to corn smut. Gives moderate grain yield. When raised for grain it is maore suitable for favoured (corn) areas. When raised for green matter and silage, it is suitable even for less favoured areas. During 1956-57 it was acclimatized in the Brno and Gottwaldov krajs.

Varieties of Horse-tooth corn (Zea mays var. indentata).

9. Bucany 'Yellow Horse-tooth': Hybridized through selection from the Hungarian variety 'Pettend Golden Stream'. Allowed in 1954. Hybridizer: Hybrid Station at Bucany, okres Hlohovec.

High stem (154 - 275 cm.), strong. There are generally 10 - 11 fairly long, broad leaves on the plant. The panicle is usually large, with many branches. Anthers reddish, stigmas mostly green.

Most often only one ear per plant, set very high, pendant when mature, inconsiderable husk, slightly conical to almost

cylindrical, medium long, strong, mostly fourteen-rowed; cob strong, mostly dark red. Number of kernels per row middling, proportion of grain in the ear middling.

Light yellow kernel of the horse-tooth type with deep depression, fairly large, long, longer than wide, flat, slightly horny; absolute weight middling (251 - 352 g.), hectolitre weight low (53 - 74 kg.). Rather low to middling content of nitrogenous matter, middling content of oil.

Late variety (128 - 152 days) with slow initial growth. Sprouts fairly well. Less resistant to corn smut. Gives high grain yield. When cultivated for grain, it is suitable only for the warmest areas in Slovakia. It gives very good silage yield in all favoured areas. During 1956-57 it was acclimatized in the Bratislava, and Nitra krajs.

10. Czech 'White Hores-tooth': Hybridized by Jos. Zajicek at Rasovice u Nymburka through selection from the American Horse-tooth 'Silver King'. Allowed in 1952. Hybridizer: Hybrid Station at Lysa nad Labem, okres Nymburk.

Fairly high to high stem (146 - 260 cm.). There are generally 9 - 10 medium long, broad leaves on the plant. The panicle is ordinarily large with either many or few branches. Most of the anthers are reddish, the stigmas are varicolored, though most often green .

Usually only one ear per plant; fairly high set to high set, when mature erect to pendant, inconsiderable husk; slightly conical, medium long, strong, mostly twelve to fourteen-rowed; cob strong, white. Number of kernels per row middling, proportion of grain in the ear middling.

White kernel of the horse-tooth type, with shallow indentation, fairly large, longer than wide , slightly horny; absolute

weight middling (211 - 366 g.), hectolitre weight rather low (58 - 75 kg.). Middling content of nitrogenous matter and oil.

Semi-early variety (109 - 150 days) with fairly rapid initial graowth. Sprouts moderately only. Less resistant to corn smut. Gives high grain yields. When raised for grain it is suitable for corn areas, and also for more favoured and warmer locations in beet growing areas. When raised for green matter and silage it is suitable even for less favoured areas. It does well with rather thick sowing into drills 60 X 30 cm. to 60 X 40 cm, or into nests 60 X 60 to 70 X 70 cm per two plants. During 1956-57 it was acclimatized in the Prague, Karlovy Vary, Usti n. L., Hradec Kralove, Pardubice, Brno, Gottwaldov, Bratislava, Nitra, Banska Bystrica, Kosice, and Presev krajs.

11. Hodonin 'Yellow Horse-tooth': Hybridized by the former Hybrid Station at Velke Pavlovice through selection from the variety 'Pettend Golden Stream'. Allowed in 1937. Present hybridizer: Hybrid Station at Cejce, okres Hodonin.

Fairly high to high stem (138 - 275 cm.), strong. There are egnerally 9 - 10 fairly long, broad leaves on the plant. The panicle is large with many branches. Anthers vari-colored stigmas vari-colored, though most often green.

Ordinarily only one ear per plant; set high, usually pendant when mature, inconsiderable husk. Slightly conical, medium long, strong, most often twelve-rowed; cob fairly strong, red. Number of kernels in the row middling, proportion of grain in the ear middling.

Light yellow kernel of the horse-tooth type with shallow indentation, fairly large, longer than wide, flat, slightly horny; absolute weight middling (255 - 352 g.), hectolitre weight rather low (60 - 75 kg.). Midlling content of nitrogenous matter, middling to rather low content of oil.

Semi-late variety (125 - 153 days) with slow initial growth.

large-grained corns is needed. During 1956-57 it was acclimatized in the Nitra kraj

Inter-variety hybrids

13. Hybrid 'Czech White Horse-tooth' X'Slovak Yellow': Allowed in 1954. Hybridizer: Genetics Laboratory CSAZV at Lednice, okres Breclav.

High stem (158 - 265 cm.), strong. On the plant there are generally 9 to 10 medium long, broad leaves. The panicle is large with either many or few branches. The anthers are mostly reddish, the stigmas xxxx vari-colored, though mostly green.

Usually one ear per plant; set high, and pendant when mature; inconsiderable to moderate husk; most often slightly conical, medium long, strong, usually twelve- to fourteen-rowed; cob fairly strong, white. Number of kernels per row middling to high, proportion of grain in the ear middling.

The kernel from harvest F_2 is the type of the mother variety: Czech horse-tooth, though colored whitish yellow. The kernel from harvest F_1 is a crossing type between hard corn and horse-tooth, whitish- to light orange-yellow, fairly large, longer than wide, flat, slightly horny to semi-horny, absolute weight middling (208 - 362 g.), hectolitre weight rather high (67 - 78 kg.). Rather low content of nitrogenous matter and oil.

Semi-late hybrid (112 - 153 days) with fairly rapid initial growth. Sprouts fairly well. Fairly resistant to corn smut. Gives v ery high grain yields. When raised for grain and silage it is suitable for favoured locations in Southern Moravia, and particularly in Slovakia. During 1956-57 it was acclimatized in the Gottwaldov, Bratislava, Nitra, Kosice, and Presov krajs.

14. Hybrid KaZ (Kocovec Early X Czech White Horse-tooth): Allowed in 1956. Hybridizer: Originally the Hybrid Station at Lednice, now the Hybrid Station at Lysa n. L., okres Nymburk.

Fairly high stem (142 - 232 cm.), fairly strong. There are usually 8 to 9 long, fairly broad leaves on the plant. The panicle is large, with either many or few branches. The anthers are mostly rose-colored, the stigmas usually yellow green, though occasionally rose-colored.

Ordinarily 1 - 2 ears per plant; fairly high to high set; when mature semi-pendant and pendant; moderate husk. The ears are conical to almost cylindrical, medium long to long, fairly strong, ten- to twelve-rowed; cob fairly strong, white. Proportion of grain in the ear high.

The kernel from harvest F_0 is of the 'Kocovec Early' type, although colored whitish yellow. The kernel from harvest F_1 is a cross type between hard corn and horse-tooth, whitish to yellow, large, same width as length; absolute weight middling to high (259 - 402 g.), hectolitre weight rather low (57 - 78 kg.), Midlling content of nitrogenous matter and oil.

Semi-early hybrid (112 - 143 days) with very rapid initial growth. Sprouts fairly well. Gives high grain yield. For grain cultivation it is suitable for more favourable locations in beet-growing areas, and adjacent corn-growing areas. Particularly suitable for silage cultivation and for green matter. In these cases it may be planted in less favoured locations. During 1956-57 it was acclimatized in the Prague, Brno, Gottwaldov, Bratislava, Nitra, Banska Bystrica, and Kosice krajs.

15. Hybrid 'Valtice' X 'Hodonin Yellow Horse-tooth': Allowed in 1954. Hybridizer: Hybrid Station at Valtice, okres Mikulov.

Fairly high to high stem (141 - 270 cm.), strong. There

are most often 9 - 10 long, broad leaves on the plant. The panicle is large with many branches. Anthers vari-colored, stigmas vari-colored, though most often green.

Most often one ear per plant, set high, when mature semi-pendant to pendant, moderate husk. Slightly conical, modium long to long, strong, predominantly twelve-rowed; cob strong white, light and dark red. Number of kernels per row middling, proportion of grain in the ear low to middling.

The kernel from harvest F_0 is of the Valtice corn type, although colored pale yellow. The kernel from harvest F_1 is a cross type between hard corn, and horse-tooth, pale and darker yellow, fairly large, same width as length, full, slightly horny to semi-horny; absolute weight middling (271 - 368 g.), hectolitre weight middling (64 - 77 kg.). Rather low content of nitrogenous matter, middling content of oil.

Semi-late variety (125 - 150 days) with rapid to very rapid initial growth. Sprouts strongly to fairly well. Fairly resistant to corn smut. Gives high grain yields. When raised for grain it is suitable for more favoured locations in Moravia, and Slovakia. Particularly suitable for cultivation for green matter and silage in all regions. During 1956-57 it was acclimatized in the Brno kraj.

Buckwheat

(Fagopyrum sagittatum Gilib.)

1. Moravian, native: An old native variety from the Valasse region. Allowed in 1950.

Fairly high stem (73 - 112 cm.), in the lower part colored usually moderately, sometimes brightly red. Leaves fairly large to quite large, when in blossom green with red tinge, central nerve and petiole mostly red. Blossoms fairly large,

most often rosy to white, though occa ionally there are plants deep rose flowers. Fairly large grain, three-sided, with a rather low number of four- and two-sided seeds, brownish silver-grey with ~~xith~~ marble-like markings, ~~and~~ or sometimes nut-brown to dark brown and grey without lines, or with a few noticeable marble-like markings. Absolute weight fairly high (21 - 24 g.).

Fairly early variety (85 - 105 days) of the seed type. Blossoming and ripening not uniform. Fairly resistant to lodging. Particularly suitable for lighter soils and higher locations in the Carpathian regions of Moravia (Valasse area), sometimes also in Silesia, and for the sandy soils of the Elbe valley.

2. Slovak, native: An old native Eastern Slovak variety from the area of Presov. Allowed in 1950.

Fairly high stem (73 - 112 cm.), lower part generally moderately to brightly red-colored. Leaves fairly large to quite large. when in blossom green and dark green with red tinge, central nerve and petiole mostly red or reddish. Blossoms fairly large, mostly pale rose-colored to rose, more rarely pure white. Kernel fairly large, though somewhat smaller than the Moravian native variety, three-sided, with a rather low number of four- and two sided seeds, brownish silver-grey with marble-like markings, or sometimes nut-brown and grey without lines, or with few noticeable marble-like markings. Absolute weight fairly high (20 - 23 g.).

Fairly early variety (85 - 105 days) of the seed type. Blossoming and ripening not uniform. Fairly resistant to lodging. Suitable for lighter soils in the upper and middle Vah valley, the East Slovak krajs (chiefly Presov and Kosice save for the dry, sandy regions), and for regions in central Slovakia.

Proso

(Panicum miliaceum L.)

1. Hanak 'Manna': Hybridized by the former ZUZR at Prerov through individual selection from a native variety of Hanak grey proso. Allowed in 1940. Hybridizer: Hybrid Station at Stara Ves, okres Prerov.

Stem fairly high to high, fairly strong, light green. Leaves long, fairly broad, before grain-formation semi-erect, light green with grey tinge, central nerve whitish to light green. Kernel fairly large, broadly oval, plump, with glume light green to grey in varying shades, with yellow stripping, edges of the glume yellow. Absolute weight fairly high (5.3 - 6.3 g.).

Early to very early variety (80 - 116 days). Resistant to lodging and proso smut. Suitable for more or less favoured regions of Bohemia and Moravia with sufficiently long summers. Requires rather light, sandy-clay to clay soils with sufficient humus and lime.

2. Slovak 'Red': Hybridized through individual selection from proso originating in South-East Europe. Allowed in 1949. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Faibly high to high stem , quite strong, dark green, later with violet tinge. Leaves medium long to long, before grain formation semi-erect to semi-pendant, dark green with violet tinge, central nerve at first whitish, later violet. Kerenal fairly large, somewhat smaller than the 'Hanak Manna' variety, broadly oval , full, with glume brownish red without striping, edge of the glume fairly light. Absolute weight fairly high (5.1 - 5.9 g.).

Early variety (86 - 116 days). Resistant ot lodging and proso smut. Suitable for all parts of Slovakia, though especially the South, also for less favoured locations with long summer. Requires rather light sandy-clay to clay soils with sufficient humus and lime.

BEANS

During the year 1956-57 there were allowed, and with reference to peas, acclimatized all in all thirty five varieties of six different species of bean. Among these were twenty edible varieties, and fifteen varieties of forage beans.

Edible Beans

Edible Lentil

(Lens culinarie Med.)

A total of five varieties were allowed, of which two are hybrids, and three are native varieties.

In describing the varieties, the following degrees of classification were employed:

Height of the Stem: 1. low (under 30 cm.), 2. rather low (32.1 - 37 cm.), 3. fairly high (37.1 - 42 cm.), 4. quite high (42.1 - 47 cm.), 5. high (above 47 cm.).

Absolute weight of the seed: 1. low (under 30 g.), 2. rather low (30.1 - 40 g.), 3. fairly high (40.1 - 50 g.), 4. quite high (5011 - 60g.), 5. high (above 60 g.).

Hectolitre weight: 1. low (under 73.5 kg.), 2. rather low (73.6 - 76.5 kg.), 3. fairly high (76.6 - 79.5 kg.), 4. quite high (79.6 - 82.5 kg.), 5. high (above 82.5 kg.).

Period of Maturity of the Varieties: 1. early (average period of growth up to 109 days),2. quite early (110 - 112 days) 3. semi-early (113 - 115 days), 4. semi-late (116 - 118 days) 5. late (above 118 days).

Color of the Blossom: All the varieties have flowers with white to pale violet colored shield , veined with darker violet; wings white, vessel white with violet tip.

1. Hrotovice 'large grained': Hybridized by the former ZUZR at Prerov through individual selection from a native Moravian variety from the neighbourhood of Miroslavi. Allowed

in 1946. Present hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov.

Stem fairly high to quite high (25 - 68 cm.), moderately ramified. Leaves fairly large and fairly broad. Rather large blossoms. Pods short, fairly broad to broad, ordinarily two per floral stem. Large seed, light green brown; absolute weight quite high (40.5 - 69 g.), hectolitre weight fairly high (71 - 82 kg.).

Quite early variety (78 - 136 days). Fairly resistant to more resistant to fusariosa, fairly resistant to flailing /vylust'ovani/. Seed has very good flavor. Suitable for rather dry areas, and also for rotation areas.

2. Moravian 'Small grained': Old native variety from the neighbourhood of Rouchovany na Morave. Allowed in 1941.

Fairly high stem (26 - 61 cm.), moderately ramified. Leaves small and rather narrow. Blossoms rather small to fairly large. Pods very short, narrow, very prolific, ordinarily two per flower stem. Seed small, light green brown, occasionally dark spotted; absolute weight low (17 - 35.5 g.), hectolitre weight high (78 - 88 kg.). Rather early variety (74 - 136 days). Remarkably resistant to fusariosa. Fairly resistant to flailing. Seed has very good flavor. Suitable for all regions.

3. Pisarec 'large grained': Hybridized by the hybrid section of the former ZVUZ in Brno. Allowed in 1937. Presnt hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

Fairly high stem (28 - 67 cm.), moderately ramified. Rather large and rather broad leaves. Rather large blossoms. Pods short, broad, ordinarily 2 - 3 per flower stem. Seed unusually large, light brown green; absolute weight high (42 - 79 g.), hectolitre weight rather low (65 - 82.5 kg.).

Early variety (76 - 137 days). Less resiatnt to fusariosa. Fairly resistant to flailing. Seed has very good flavour. Suitable for rather dry regions.

4. Slovak 'blue': Hybridized through individual selection from French green du Puy lentils. Allowed in 1950. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Fairly high stem (25 - 60 cm.), extensively ramified. Leaves fairly large to rather small, fairly broad to somewhat narrow. Blossoms rather small to fairly large. Pods short, fairly broad, two to three pe flower stem. Seed fairly large to rather small, grey green , spotted blue; absolute weight rather low (24 - 38 g.), hectolitre weight quite high (75 - 85 kg.).

Quite early variety (80 - 135 days). Fairly resistant to fusariosa and flailing, Seed has good to very good flavor. Suitable only for rather dry regions.

5. Slovak native: Old native var ety from the neighbourhood of Trebisovo. Allowed in 1948.

Fairly high to quite high stem (30 - 60 cm.), extensively ramified. Leaves fairly large to quite tiny, fairly broad to rather narrow. Blossoms rather small to fairly large. Pods very short, fairly broad, straight, prolific, ordinarily 2 - 3 per flower stem. Seed fairly large to quite small, light green brown, occasionally spotted grey blue; absolute weight rather low to low (23 - 34 g.), hectolitre weight rather high to high (81.5 - 85 kg.).

Quite early to semi-early variety (88 - 136 days). Notably resistant to fusariosa. Suitable for rather dry and rotation areas.

Field Bean

(Phaseolus vulgaris L.)

In all five varieties were allowed, including one hybridized and four native varieties.

In describing the varieties the following degrees of classification were employed:

Absolute weight of the Seed: 1. very low (under 100 g), 2. low (110 - 200 G), 3. fairly low (210 - 250 g), 4. fairly high (260 - 350 g), 5. quite high (360 - 400 g), 6 High (410 - 500 g), 7. very high (above 500 g).

Period of maturity of the varieties: 1. early (with average period of growth under 100 days), 2. quite early (101 - 110 days), 3. semi-early (111 - 115 days), 4. semi-late (116 - 125 days), 5. late (above 125 days).

1. White Orion: Hybridized by the improvement section of the former ZVUZ at Brno through individual selection from market seed of unknown origin. Allowed in 1946. Present hybridizer: Hybrid Station at Valtice, okres Mikulov.

Plant of a bushy, though occasionally slightly twining type, rather low (23 - 40 cm), erect. Small leaves, apex leaflets of the deltoid type. Blossom white. Pods short, mostly straight, usually with 4 - 5 seeds. Stringy, with inner parchment-like membrane. Pods plentiful. Seed porcellan-white; eye whitish without circle; rather small, straight, shortly cylindrical, at the ends slanting, also ovate, slightly flattened; absolute weight low to fairly high (150 - 273 g), Content of nitrogenous matter in the dried grain /v susine zrna/ 22 % (18.3 - 25.5 %). Cooks uniformly, cooking time 35 - 55 min; good flavor.

Semi-early variety (91 - 125 days). Almost resistant to lodging, sufficiently resistant to flailing; slightly affected

by mosaica and by bacterial spots . Suitable for middling and even less favoured areas.

2. White Southern Moravian native: Old native Southern Moravian variety from the neighbourhood of Velke Bilovice. Allowed in 1941.

Semi-vine type of plant, medium height (24 - 60 cm.). Fairly large leaves; apex leaflets almost rounded or deltoid. Blossom white. Pod medium long, narrow, slightly to moderately curved, ordinarily with 5 to 6 seeds. Stringy, with internal parchment membrane. Pods plentiful. Seed mother-of-pearl white; eye whitish, without circle; small, oval, slightly flattened, briefly cylindrical, at the ends slanting and moderately flattened, or extensively cylindrical and decidedly flattened; absolute weight fairly high (186.5 - 275 g.). Content of nitrogenous matter 26.3 % (21.3 - 30.1 %). Cooks uniformly (44 - 56 min); sufficiently good flavor.

Semi-late to late variety (101 - 136 days). Fairly resistant to lodging and flailing, slightly affected by anthracnose and mosaica. Suitable for reasonably favoured areas.

3. Slovak native white kidney: Old native variety from South West Slovakia, from the region of Trnava. Allowed in 1948.

Semi-vine type plant, medium height (25 - 68 cm.). leaves fairly large to large, apex leaflets deltoid, more rarely almost roun-ded. Blossom white. Pod long, rather broad, slightly to moderately curved, ordinarily with 5 seeds. Stringy with inner parchment membrane. Pods plentiful. Seed pocellan white, eye whitish without circle; large, mostly kidney-shaped, slightly to moderately flattened, more rarely oval; absolute weight fairly high (235.5 - 367 g.). Content of nitrogenous matter 26.5 % (22.2 - 30.8 %). Cooks uniformly, cooking time 49 - 55 min.), and has good flavor.

Semi-late variety. Fairly resistant to lodging and flailing, especially resistant to diseases. Particularly suitable for warm southern regions.

4. Slovak native white pearl: Has its origin in Hungarian native variety. Allowed in 1948.

Semi-vine type of plant, medium height (19 - 22 cm.). leaves fairly large, apex leaflets predominantly of the deltoid type. White blossom. Pod rather short, narrow, slightly curved, ordinarily with 5 to 6 seeds. Stringy, with inner parchment membrane. Pods sufficiently plentiful. Seed pocellan white; eye whitish, without circle; rather small to small; oval, nearly semi-full; absolute weight low (202 - 298 g.). Content of nitrogenous matter 25.7 % (21.9 - 30.8 %). Cooks uniformly in about 49 - 57 min., and has good to very good flavor.

Semi-late variety (97 - 134 days). Fairly resistant to lodging and flailing, sufficiently resistant to diseases. Suitable for maderate and more favored regions.

5. Slovak native sulpher yellow: Old native variety from the Southern part of Slovakia. Allowed in 1948.

Plant of semi-vine type, medium height (21 - 88 cm.). Rather small to fairly large leaves, apex leaflets have an abbreviated deltoid form. Blossoms mostly white, though in part purplish. Pod medium long, fairly broad, straight to slightly curved, ordinarily with 5 seeds. Stringy, with inner parchment membrane. Pods plentiful. Seed sulpher yellow, with grey marble-like markings; eye white, without circle, or bordered with light violet circle; large, oval, sufficiently full to slightly flattened; absolute weight rather high (240.5 - 334.5 g.). Content of nitrogenous matter 24.7 % (21 - 29.3 %). Cooks sufficiently uniformly in 48 - 63 min., and has good flavor.

Semi-late to late variety (103 - 133 days). Fairly resistant

to lodging, fairly to slightly resistant to flailing, notably resistant to diseases. Suitable for more favored regions.

Seed Pea

(Pisum sativum hortense L.)

During 1956-57 there were allowed and acclimatized ten hybrid varieties of pea. In our descriptions these are grouped as follows: a) yellow grained varieties, (six varieties), and b) green grained varieties (four varieties). Besides these there is a description of one variety of green pea which was resticted in 1956.

In describing the varieties the following degrees of classification were employed:

Height of the Plant: 1. low (under 70 cm.), 2. fairly high (71 - 90 cm.), 3. high (above 90 cm.).

Length of the Pod: 1. short (under 4 cm.), 2. fairly long (4.1 - 8 cm.), 3. long (above 8 cm.).

Breadth of the Pod: 1. narrow (under 1.2 cm.), 2. fairly broad (1.3 - 1.8 cm.), 3. broad (above 1.8 cm.).

Absolute Weight of the Seed: 1. low (under 180 g.), 2. fairly high (181 - 250 g.), 3. high (above 250 g.).

Cooking Quality of the Seed: 1. very good (if the pea takes under 70 min. to cook), 2. good (70 - 100 min.), 3. bad (more than 100 min.).

Uniformity of Cooking: 1. very good (If during the cooking time of the variety, out of 100 seeds, 80 - 100 % are cooked), 2. good (70 - 79.9 %), 3. less good (50 - 69.9 %).

Yellow grained varieties

1. Detenice yellow large grained: Hybridized through individual selection from a large grained yellow pea grown in the Jicin region. Allowed in 1939. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Plant high, rich in leafage. Stem fairly strong to strong. Leaves large, broadly and oblongly oval, with tip mostly rounded, though sometimes turned in. Stipules large, broad. Blossom large, white. Pod fairly long to quite long, fairly broad to broad, most often straight, more rarely curved; end of the pod both obtuse and acute-angled. Spur either lacking or fairly long. There are 5 - 7 seeds per pod. Seed yellow, large, round, smooth; absolute weight high (247 - 349 g.). Cooking quality of the seed good, uniformity of cooking good to very good.

Semi-late variety (112 - 140 days). During 1956-57 it was acclimatized in the Pargue, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Liberec, Hradec Kralove, Pardubice, Gottwaldov, Ostrava, Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

2. Liblice 'Bastard': Hybridized through individual selection from a cross of pea and Peluska . Allowed in 1936. Hybridizer: Hybrid Station at Liblice u Ceskeho Brodu.

Plant high, rich in leafage. Stem fairly strong to strong. Leaflets fairly large, oval, mostly with rounded tip. Stipules large and broad. Blossom either large or fairly large, white. Pod fairly long, fairly broad; end of the pod both obtuse and acute-angled. Spur fairly long. There are ordinarily 4 - 6 seeds per pod. Seed yellowish, fairly large, round smooth; absolute weight fairly high (158 - 235 g.). Cooking quality of the seed good, uniformity of cooking good to very good.

Semi-late to rather early variety (96 - 134 days). Very suitable for raising for green fooder, and for grain mix. During 1956-57 it was acclimatized in the Prague, Plsen, Karlovy Vary, Liberec, Hradec Kralove, Brno, and Ostrava krajs.

3. Yellow 'Million': Hybridized by theformer Hybrid Station at Zidlochovice through individual selection from a cross of Mahndorf early pea with an old native Milevsky pea. Allowed

in 1950. Present hybridizer: Hybrid Station at Stranecke Zhori, okres Velke Mezirici.

Very high plant, extensively leafed. Stem strong to fairly strong. Leaflets fairly large, both broadly and oblongly oval, with rounded off tip. Stipules fairly large to large, Blossom large and white. Pod fairly long, fairly broad, straight; end of the pod mostly obtuse angled. Spur short. There are ordinarily 4 - 5 seeds per pod. Seed orange yellow, small, round, smooth; absolute weight low (150 - 203 g.). Cooking quality of the seed good, uniformity of cooking good.

Semi-late variety (99 - 135 days). Suitable for growing for green fodder, and for grain mix. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Usti n. L., Liberec, Pardubice, Jihlava, Brno, Olomouc, Gottwaldov, and Ostrava krajs.

4. Slovak 'Victoria 75': Hybridized through individual selection from material odtained from a market seed pea of the Victoria type by the Hybrid Station at Sladkovicovo. Allowed in 1922. Present hybridizer: Hybrid Station at Turciansky Peter, okres Martin.

Very high plant, extensively leafed. Stem fairly strong to strong. Leaflets large to fairly large, broadly oval, with tip rounded off with prickle. Stipules large to fairly large broad. Blossom large to fairly large, white. Pod medium long, broad to fairly broad, straight, or less frequently slightly curved; end of the pod rectangular. Spur short. There are ordinarily 5 - 6 seeds per pod. Seed whitish yellow, large, round, slightly flattened, smooth, or sometimes slightly wrinkled; absolute weight high (246 - 344 g.). Cooking quality of the seed good, uniformity of cooking good to very good.

Semi-early variety (94 - 129 days). Suitable for arid

regions. During 1956-57 it was acclimatized in the Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

5. Slovak 'Victoria 800': Hybridized by the Hybrid Station at Sladkovicovo through individual selection from a cross of 'Slovak Victoria 75' with an Auvergne pea. Allowed in 1946. Present hybridizer: Hybrid Station at Bucany, okres Hlohovec.

High plant, extensively leafed. Stem strong to less strong. Leaflets large, broadly oval, with rounded tip and prickle. Stipules large to fairly large, broad. Blossom fairly large, white. Pod medium long, broad, straight or slightly curved; end of the podrectangular, or more rarely acute-angled. Spur medium long. In the pod there are ordinarily 5 - 6 seed. Seed light yellow to slightly rose-colored, large, round, very slightly flattened, smooth, occasionally wrinkled; absolute weight high (251 - 349 g.). Cooking quality of the seed good, uniformity of cooking good to very good.

Semi-late variety (94 - 131 days). Can be easily shelled. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska, Bystrica, Zilina, Kosice, and Presov krajs.

6. Zidlochovice 'Victoria Early': Hybridized by the former Hybrid Station at Zidlochovice through individual selection from a cross of Mahnsdorf early pea with Frainspitz 'yellow Victoria'. Allowed in 1934. Present hybridizer: Hybrid Station at Stranecke Zhori, okres Velke Mezirici.

High plant, extensively leafed. Stem strong to fairly strong. Leaflets large, broadly and oblongly oval, with rounded to obtuse tip. Stipules large, broad. Blossom white, large. Pod long to medium long, fairly broad to broad, straight; end of the pod obtuse to acute-angled. Spur short to medium long. In the pod there are ordinarily 4 - 6 seeds. Seed orange yellow large, angular to round, smooth, though sometimes slightly

wrinkled; absolute weight high (264-335 g.). Cooking quality of the seed good, evenness of cooking good.

Semi-early variety (94 — 133 days). During 1956-57 it was acclimatized in the Prague, Liberec, Jihlava, Olomouc, and Brno krajs.

Green grained varieties

7. Klatkovy Green: Hybridized by the former Vyzkumna Stanice Zemedelska/Agricultural Research Station/ in Klatovy through individual selection from material obtained from market seed of Bontiful Pea and raised at the farm at Hajany u Brna. Allowed in 1935. Present Hybridizer: Hybrid Station CSAZV at Sobetice u Klatov.

High plant, extensively to moderately leafed. Stem fairly strong to strong. Leaflets broad to oblongly oval, with tip both rounded and obtuse, occasionally notched. Stipules large, broad. Blossom large, white. Pod medium long, fairly broad, slightly curved to straight; end of the pod obtuse or acute-angled. Spur short to fairly long. There are ordinarily 6-8 seeds in the pod. Seed grey-green, fairly large, round to angular, smooth or slightly wrinkled; absolute weight middling (160 - 242 g.). Cooking quality of the seed good, evenness of cooking good to very good.

Semi-late variety (97 - 137 days). During 1956-57 it was acclimatized in the Ceske Budejovice, Plzen, Usti n. L., Hradec Kralove, Pardubice, Jihlava, Olomouc, Gottwaldov, and Ostrava krajs.

8. Slovak 'Expres': Hybridized by the Hybrid Station at Sladkovicovo from material obtained from market seed of unknown origin. Allowed in 1943. Present Hybridizer: Hybrid Station at Trebisovo.

Fairly high plant, moderately leafed. Stem fairly strong.

Leaflets small to fairly large, broad or oblongly oval, with rounded tip. Stipules fairly large. Blossom fairly large, white. Pod fairly long, fairly broad, straight; end of the pod roct-angular. Spur short. There are ordinarily 4 - 5 seeds in the pod. Seed light green and grey-green, fairly large to small, round, slightly flattened, smooth or wrinkled; absolute weight middling (156 - 234 g.). Cooking quality of the seed less good, evenness of cooking good.

Very early variety (88 - 112 days). A garden pea, this may be grown in field, and is highly suitable for canning. During 1967-67 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

9. Slovak Canning: Hybridized through individual selection from material obtained from market seed of Kentish Pea. Allowed in 1949. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Fairly high plant, moderately leafed, Stem weak to fairly strong. Leaflets fairly large, oblongly oval, with tip rounded with prickle. Stipules fairly large, fairly broad. Blossom fairly large, white. Pod fairly long, fairly broad, straight, end of the pod rectangular. Spur short. There are ordinarily 4 - 6 seeds in the pod. Seed light grey-green, small, round, slightly flattened, slightly wrinkled; absolute weight low (142 - 180 g.). Cooking quality of the seed good, even.

Early to semi-early variety (88 - 133 days). Field grown garden pea, very suitable for shelling for canning purposes. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

10 Stupice 'Green': Hybridized by the Hybrid Station at Stupice through individual selection from a native variety from the Pysely area. Allowed in 1926. Present hybridizer: Hybrid Station at Kostelec u Krizku, okres Prague-East.

High plant, extensively leafed. Stem strong to fairly strong. Leaflets fairly large to large, broadly oval, with rounded tip. Stipules large, broad. Blossom large, white. Pod fairly long to long, fairly broad, straight, though more rarely slightly curved; end of the pod obtuse-angled, more rarely acute-angled. The spur, if it occurs, is short to fairly long. There are ordinarily 4 - 6 seeds in the pod. Seed grey-green to blue-green, large, round to flattened, smooth; absolute weight high (240 - 321 g.). Cooking quality of the seed very good, evenness of cooking good to very good.

Semi-late variety (95 - 136 days). During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Karlovy Vary Liberec, Hradec Kralove, Brno, Olomouc, Bratislava, and Nitra krajs.

'Milion' Green: Hybridized by the former Hybrid Station at Zidlochovice through individual selection from an old native Milevska Pea. Allowed in 1940. Restricted in 1956.

High plant, extensively leafed. Stem strong to weak. Leaflets lareg, mostly oval with rounded tip. Stipules large to middling, broad to fairly broad. Blossom small to fairly large, white. Pod fairly long, fairly broad, straight to slightly curved, end of the pod acute-angled to obtuse-angled. The spur, where it occurs, is short. There are ordinarily 4 - 6 seeds in the pod. Seed grey-green, small, round; absolute weight low (103 - 149 g.). Cooking quality very good, evenness of cooking very good.

Semi-late variety (96 - 149 days). Gives good yields as green manure, is suitable as a fooder pea when cultivated in clean cultures and oat mixtures.

Seeding of this variety may be recognized for the last time in the harvest year 1957.

Fodder Beans

Common Bean

(Faba vulgaris Moench-syn. Vicia faba L.)

Four hybrid varieties are allowed.

The following degrees of classification were employed in describing the varieties:

Height of the Plant: 1. Low (under 85 cm.), 2. fairly high (86 - 105 cm.), 3. high (over 105 cm.).

Length of the Pod: 1. short (under 7 cm.), 2. fairly long (7.1 - 10 cm.), 3. long (over 10 cm.).

Absolute Weight of the Seed: 1. low (under 450 g.), 2. middling (451 - 550 g.), 3. high (over 550 g.).

Period of Maturity of the variety: 1. early (under 120 days), 2. semi-early (121 - 140 days), 3. late (over 140 days).

1. Chlumec: Hybridized through individual selection from a bean of unknown origin, raised for many years at Chlumec n. Cidl. Allowed in 1928. Hybridizer: Hybrid Station at Chlumec n. Cidl, okres Novy Bydzov.

Plant fairly high to high, moderately to extensively leafed. Leaflets large. Bloosom quite large, shield white, rose colored at the base, light brown-, occasionally almost violet-veined. Wings white, with bla ck-brown spots. Pod fairly long to short, fairly broad, straight or slightly curved, rather stout, clublike, diagonally erect. There are ordinarily 4 - 5 seeds in the pod. Seed small, oval to round, light brown; absolute weight middling (450 - 470 g.).

Semi-early variety.

2. Prerov: Hybridized by the former ZUZR at Prerov through individual selection from a native Hanak variety. Allowed in 1939. Hybridizer: Hybrid Station at Stara Ves, okres Prerov.

Fairly high plant, moderately to extensively leafed. Strong stem. Leafelts fairly large to large. Blossom fairly large to large, shield white, partially rose colored, veins of the shield green-violet or brown. Wings white with brown to black-brown spots. Pod short to fairly long, fairly broad, straight or slightly curved, inclined. There are ordinarily 3 - 4 seeds in the pod. Seed small to fairly large, full, oval, somewhat crushed, crumpled /zmacknuty/, light to dark brown; absolute weight middling to rather low (325 - 460 g.).

Semi-early variety.

3. Zborovice: Hybridized by the Hybrid Station at Zborovice through individual selection from a variety of Russian origin. Allowed in 1928. Present hybridizer: Hybrid Station at Nerada, okres Bohumin.

Fairly high plant, moderately to extensively leafyd Stem strong. Leaflets large to middling. Blossom fairly large to large, shield white, though occasionally rose-colored, veins of the shield light brown or light violet, wings white with black-brown stain. Pod fairly long, fairly broad, slightly curved or straight, fairly strong, erect or slightly inclined. There are ordinarily 3 - 4 seeds in the pod. Seed fairly large, full, oval, somewhat crumpled, greenish yellow or light brown; absolute weight fairly high (440 - 560 g.).

Semi-early variety.

4. 'Tatra': Hybridized through individual selection from a native Slovak variety. Allowed as a hybrid variety in 1949. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Fairly high plant, moderately to extensively foliate. Stem strong. Leaflets fairly large to large. Blossom large, schield white, partially rose-colored, veins of the shield light brown, wings white with black-brown stain. Pod short to fairly long, fairly broad, straight to quite curved, fairly strong, erect or inclined. There are ordinarily 3 - 4 seeds in the pod. Seeds fairly large to large, full, oval, slightly crumpled on the sides, light brown to grey-yellow with brown marking; absolute weight high (470 - 660 g.).

Semi-early variety.

Field Pea/Peluska/

(Pisum sativum ssp. arvense (L.) A. Gr.)

One variety of winter field pea, and two varieties of spring field pea were allowed. All are hybrid varieties.

In describing the varieties of field pea, the same degrees of classification were used as with garden pea (see p. 78): except that for the verbal expression of absolute weight of field peas, the following standard was employed:

Absolute weight of the seed: 1. low (under 100 g.), 2. fairly high (101 - 180 g.), 3. high (above 180 g.).

Variety of winter field pea.

1. Klatovy 'winter': Hybridized by the former Agricultural Research Station at Klatovy through individual selection from a native variety of Russian origin, raised for many years in the regions of Klatovy and Susice. Allowed as a hybrid variety in 1952. Present hybridizer: Research Station CSAZV at Sobetice u Klatov.

Fairly high plant, moderately to extensively foliate. Stem weak to strong, moderately to extensively branched. Leaflets fairly large, oblongly oval, with narrow, or more rarely, rounded tip. Stipules fairly large and fairly broad. Blossom fairly large, banner rose-colored, wings light to darker red, keel white, slightly greenish. Pod fairly long to short, narrow to fairly broad, straight or slightly curved, with blunt beaked tip. Spur short or lacking. There are ordinarily 8 - 10 seeds in the pod. Seed brick brown and grey-green flecked with violet, small to fairly large, round to slightly flattened, occasionally slightly wrinkled: absolute weight low (108 - 150 g.).

Semi-early variety -- 278 (259 - 295)days.

Varieties of spring field pea.

1. Klatovy 'spring': Hybridized by the former Agricultural Research Station at Klatovy through individual selection from a native variety of Russian origin cultivated in the Sumava. Allowed as a hybrid variety in 1952. Hybridizer: Research Station CSAZV at Sobetice u Klatov.

Tall plant, extensively foliate. Stem weak to fairly strong, extensively branched. Leaflets fairly large to large, oblongly oval, with narrow, or more rarely, rounded tip. Stipules small to fairly large, narrow. Blossom fairly large, banner light red, wings bright light red, keel white with rosy or green tint. Pod short to fairly long, fairly broad, slightly curved to straight, most often ending at an obtuse angle. Spur short or absent. There are ordinarily 6 - 8 seeds in the pod. Seed brick red and greyish yellow-green, fairly large, angular, round to flattened; absolute weight fairly high (144 - 213 g.).

Early variety -- 107 (91 - 127) days.

2. Stupice 'spring': Hybridized by the Hybrid Station at Stupice through individual selection from a native variety from the neighbourhood of Pysely. Allowed in 1923. Present hybridizer: Hybrid Station at Chlumec n. Cidl, okres Novy Bydzov.

Fairly high to high plant, extensively foliate. Stem weak to fairly strong, extensively branched. Leaflets large, oblongly oval with rounded to narrow tip. Stipules small to fairly large, narrow. Blossom fairly large, banner light violet, wings dark violet or dark red, keel green with violet tint. Pod fairly long, fairly broad, straight to slightly curved, with blunt to beaked tip. Spur short or absent. There are ordinarily 6 - 8 seeds in the pod. Seed light brown to green brown, flecked with violet, large, round to flattened; absolute weight high (163 - 223 g.).

Late variety -- 129 (102 - 144) days.

Vetch

(Vicia sativa L., Vicia pannonica Cr., Vicia villosa Roth.)

During 1956-57 there were allowed: a) four varieties of winter vetch, including two varieties of Pannonian vetch (Vicia pannonica), and two varieties of hairy vetch (Vicia villosa);

b) four varieties of spring, seed vetch (Vicia sativa).
Of these eight varieties, one variety of hairy vetch and two varieties of seed vetch are native, while the rest are hybrids.

In describing the varieties the following degrees of classification were employed:

Height of the plant: 1. low (under 65 cm.), 2. fairly high (66 - 85 cm.), 3. high (above 85 cm.).

Length of the pod: 1. short (under 4 cm.), 2. fairly long (4 - 6 cm.), 3. long (above 6 cm.).

Absolute weight of the seed: 1. low (under 30 g.), 2. fairly high (31 - 55 g.), 3. high (above 55 g.).

Varieties of winter Pannonian vetch.

1. Detenice Pannonian: Hybridized through individual selection from a native Hungarian variety cultivated in Slovakia. Allowed in 1941. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Fairly high plant, moderately foliate. Stem fairly strong, moderately to extensively branched. Leaflets fairly large, narrowly eliptical with rounded or blunt point with prickle, grey-green, moderately to extensively fuzzy. Blossom father large, banner yellowish with light brown veins, wings yellowish, keel yellowish. Pod short, fairly broad, with bent tip, markedly inclined. Seed fairly large, angular or slightly flattened, brown or grey-brown, with brown-black marble-like markings, eye yellowish white; absolute weight fairly high (38 - 47 g.).

Early to semi-early variety -- 284 (257 - 298) days. When sown early, resistant to frost, resistant to drought. It is possible, especially in warmer areas and rather light soils, to seed this variety in the spring.

2. Chlumec Pannonian (Pisarec Pannonian): Hybridized by the hybrid section of the former ZVUZ at Brno through individual

selection from native varieties from the Prerov region and from Slovakia. Allowed in 1956. Present hybridizer: Hybrid Station at Chlumec n. Cidl, okres Novy Bydzov.

Fairly high plant, moderately to extensively foliate. Stem fairly strong to strong, moderately branched. Leaflets fairly large, narrowly eliptical, with rounded tip with prickle, dark green, quite fuzzy. Blossom fairly large to large, banner cream yellow with brown veins, wings yellowish, keel dirty yellow. Pod short to fairly long, fairly broad, straight. Pods very inclined. Seed small to fairly large, grey-green or red-brown, with dark brown to black and violet marble-like markings, eye yellowish white; absolute weight fairly high (36 - 45 g.).

Semi-early variety -- 279 (257 - 290) days. Remarkably resistant to frost, resistant to diseases. Suitable for all situations save mountainous areas.

Varieties of winter hairy vetch.

3. Prerov 'Nigra': Hybridized by the former ZUZR at Prerov through individual selection from a native Moravian variety from Stara Ves. Allowed in 1946. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Fairly high to high plant, extensively foliate. Stam fairly strong, extensively branched. Leaflets large, narrowly eleiptical with rounded tip with prickle, dark green, moderately fuzzy. Blossoms large to fairly large, banner dark violet, wings and keel light violet. (Some plants have meat-red flowers). Pod short, fairly broad with straight tip. Pods mostly pendant. Seed fairly large, round, very slightly flattened, black and dark brown, occasionally with marbling; eye light brown; absolute weight fairly high (38 - 48 g.).

Semi-early variety -- 286 (260 - 294) days. It is possible to sow this either as a winter or spring crop. Resistant to

diseases, drought, and when sown early also to frost. Suitable for all situations and soils, especially for rather light soils.

4. Slovak native: Allowed in 1950.

Fairly high to high plant, moderately to extensively foliate. Stem weak to fairly strong, moderately branched. leaflets large, narrowly elliptical with rounded tip with prickle, green, slightly fuzzy. Blossoms small, banner dark violet, wings and keel pale violet. Pod short, fairly broad, with straight tip. Pods very pendant. Seed small, round, very slightly flattened, brick-brown and grey-green, with dark violet to black marbling, eye light brown; absolute weight low (25 - 30 g.).

Early variety -- 279 (261 - 293) days. Suitable for heavy and middling soils in various locations.

Varieties of spring seed vetch.

1. Moravian native: Allowed in 1941.

Fairly high to high plant, extensively foliate. Stem fairly strong, moderately to extensively branched. Leaflets fairly large to large, oval with rather broad blunt tip with prickle, green, moderately fuzzy. Blossoms large, banner light violet, wings dark violet, keel white or slightly greenish with somewhat rosy tint. Pod fairly long, fairly broad, with slightly bent tip. Pods erect to inclined. Seed fairly large, round to slightly flattened, grey brown or rose brown, light brown or black marbling; absolute weight fairly high (49 - 49 g.).

Semi-early variety (125 - 134 days), Resistant to diseases. Suitable for heavy and middling soils with sufficient supply of moisture.

2. Prerov 'Astra': Hybridized by the former ZUZR at Prerov through individual selection from a native Moravian variety. Allowed in 1948. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Fairly high to high xxxxx plant, extensively foliate. Stem fairly strong, moderately to extensively branched. Leaflets repeating fairly large to large, oval , with broad, occasionally even long, tip with prickle, green, moderately fuzzy. Blossoms large, banner light violet, wings dark violet, keel dirty white with purplish tip. Pod fairly long, fairly broad, with slightly bent tip. Pods erect. Seed large, round to crumpled, brown-grey, black or brown marbling, eye white; absolute weight high (48 - 69 g.).

Semi-early variety (125 - 134 days), where sharp frosts do not occur, this variety may be planted in the autumn. xxxx Highly resistant to diseases. Suitable for heavy and middling soils with suffidient supply of moisture.

3. Slovak native: Allowed 1950.

Fairly high variety, moderately foliate. Stem fairly strong, moderately branched. Leaflets large, repeating oval, with drawn out tip with prickle, dark green, slightly fuzzy. Blossoms large, banner light violet, wings red-violet, keel light green with violet to red xxxxx spot. Pod fairly long, fairly broad, fully bent. Pods erect. Seed fairly large to large, slightly flattened and angular, grey-brown, brown yellow, black-brown marbling; absolute weight high (48 - 65 g.).

Semi-early variety (124 - 133 days). Resistant to diseases. Suitable for heavy and middling soils.

4. Trebic 'Viola' (180/52): Hybridized through individual selection from a native variety from the Czech-Moravian Highland. Allowed in 1955. Hybridizer: Hybrid Station at Slavice, okres Trebic.

High plant, moderately to extensively foliate. Stem fairly strong, moderately branched. Leaflets large to middling, broadly repeating oval, with drawn out tip and prickle, dark

green, slightly fuzzy. Blossoms fairly large, banner dark violet, wings violet-red, keel green with purplish tip. Pod fairly long to long, fairly broad, straight to slightly bent. Pod erect to inclined. Seed fairly large to large, very flattened and angular, grey-green, grey-black to grey-blue, spotted dark brown and dark violet; absolute weight high (52 - 74 g.).

Semi-late variety (125 - 154 days). Suitable for heavy and middling soils with sufficient supply of moisture.

OIL SEEDS

During 1956-57 there were allowed all in all twelve varieties of seven different species of oil seeds. Of these nine are hybrid varieties, and three are native varieties.

White Mustard

(Sinapis alba L.)

1. Prerov: Hybridized by the former ZUZR at Prerov through individual selection from material obtained from market seed of Rumanian mustard. Allowed in 1940. Hybridizer: Hybrid Station at Horní Mostenice, okres Prerov.

Stalk fairly high, 107.5 cm. (70 - 168 cm.). Blossoms deep yellow. Pod light brown, very shaggy with long beak, semi-erect to inclined. Seed yellowish white, round; absolute weight 5 g. (4.5 to 5.5 g.); oil content 27 % (21.5 - 39.5 %). Early; growing time 110 (83 - 141) days.

Seed Gold of Pleasure

(Carmelina sativa (L.) Cr)

1. Native: Native variety of unknown origin. Allowed 1949. Hybridizer: Research Station CSAZV at Ivanovice, okres Vyskov.

High plant 73.6 cm. (54 - 94 cm.), extensively branched. Leaves rather small, lance-shaped, entire, green. Blossoms small, light yellow. Capsules small, not liable to crack/nepukavy/ yellow-green. Seed fine, orange brown; absolute weight 1 g. (0.8 - 1.1 g.); oil content 36 % (31.3 - 43.2 %). Resistant

to diseases and pests. It is not particular. Suitable for all locations, though especially the warmer ones. Early; growing time 101 (83 - 125)days.

Seed Poppy

(Papaver somniferum L.)

Three hybrid varieties are allowed.

In describing the varieties the following degrees of classification were employed:

Height of the stalk: 1. low (under 100 cm.), 2. fairly high (101 - 130 cm.), 3. high (above 130 cm.).

Shape of the poppy-head: 1. round, 2. bowl-shaped (broader than high), 3. oval, 4. extended (an extended eliptical shape).

Shape of the stigma (crown): 1. dish-shaped (sunk in the center, edges raised), 2. large-like (center and rim the same level), 3. roof-like (center raised, rims lower).

Content of oil in the seed: 1. low (under 40 %), 2. fairly high (40.1 - 45 %), 3. high (above 45 %).

Period of growth of the variety: 1. early (with average period of growth under 124 days), 2. semi-early (125 - 130 days) semi-late (131 - 135 days), 4. late (above 135 days).

1. 'Azur': Hybridized by K. Dvorsky, former Director of the Farming School at Olomouc. Allowed in 1928. Present hybridizer: Hybrid Station at Celechovice na Hane, okres Porstejov.

Fairly high stalk (114 cm.).Blossom fairly large to large, Crown petals white with dark purple spot. Poppyhead fairly large to quite small, extended to round; stigmas shallow dish-shaped to roof-like. Seed blue to a rather weak greyish tint; Content of oil high to fairly high (46 %). Early to semi-early (124 days. Suitable especially for potato regions.

2. Duba 'silver-grey': Hybridized by V. Hokes, of Brezinek u Kokorina, through individual selection from an old native variety cultivated in the neighbourhood of Duba. Allowed as a hybrid variety in 1944. Present hybridizer: Hybrid Station at Chlumec n. Cidl, okres Novy Bydzov.

Fairly high to high stalk (122.6 cm.). Blossom large, crown petals white with purple spot. Poppy-head fairly large to large, round to bowl-shaped; stigmas inverted dish-shaped. Seed light grey; content of oil high (47.6 %). Semi-early (126 days). Suitable for all production areas.

3. Hanak 'blue': Hybridized by the former ZUZR at Prerov through individual selection from a native Moravian variety cultivated in the neighbourhood of Lipnik nad Becvou. Allowed in 1934. Present hybridizer: Hybrid Station at Bystrice nad Pernstejnem.

Fairly high stalk (114 cm.). Blossom large to fairly large, crown petals white with dark purple spot. Poppy-head fairly large to quite small, round, bowl-shaped, oval, or extended; stigmas dish-shaped to shallow. Seed blue with dark grey fleck; content of oil fairly high to high (45.2 %). Early to semi-early (124 days). Suitable for all production areas, though especially for potato and beet regions.

Rape

(Brassica napus var. arvensis (Lam) Thell.)

Two varieties of winter rape (one hybrid and one native), and one native variety of spring rape are allowed.

Winter rape

1. Slapy: Hybridized through individual selection from an allowed native variety from the Slapy district. Allowed in 1946 as a hybrid. Hybridizer: Hybrid Station at Slapy, okres Tabor.

Stalks fairly high 112.4 cm. (73 - 175 cm.), quite strong. Leaves grey-green, moderately to extensively pruinose, non-hairy. Pod fairly long, straight to slightly curved with fairly long beak, erect. Seed grey-black, round, absolute weight middling 4.2 g. (3.5 - 5.4 g.); content of oil 44 % (39 - 49 %). Semi-late; growing time 315 (300 - 338) days. Moderately to less resistant to frost and shelling. Particularly suitable for potato regions.

2. Trebic native: Allowed in 1941. Hybridizer: Hybrid Station at Stranecka Zhore, okres Velke Mezirici.

Fairly long stalks 111.9 cm. (72 - 160 cm.), sufficiently strong. Leaves grey-green, moderately to extensively pruinose, non-hairy. Pod fairly long, straight to slightly bent, with fairly long beak, erect. Seed grey-black, round; absolute weight middling 4.5 g. (3.8 - 5.8 g.); oil content 44 % (39 - 49 %). Semi-early; growing time 314 (300 - 338) days. Relatively little resistance to frost and shelling. Suitableffor all locations and soils.

Spring rape.

1. Czech native: Native variety from Vratno u Msena. Allowed in 1949. Hybridizer: Hybrid Station at Chlumec n. Cidl., okres Novy Bydzov.

Stalks fairly long to short 104 cm. (58 - 155 cm.), rather weak. Leaves fairly large, bare, grey-green, moderately pruinose. Pod most often straight, fairly long with fairly long beak, erect to projecting. Seed grey-black, round to angular; absolute wieght low to fairly high (3.5 g.); oil content 38.3 % (29.2 - - 45.2 %). Semi-late; growing time 117 (89 - 153) days. Little resistance to drought and crumbling. Tolerates pests. Requires early sowing. Suitable for areas where winter rape flourishes.

Sunflower

(Helianthus annuus L.)

Two hybrid varieties are allowed.

1. Buciany 'oil': Hybridized through individual selection from a cross of two different types selected from a Bulgarian sunflower whose name is not known. Allowed in 1956. Hybridizer: Hybrid Station at Bucany, okres Hlohovec.

Fairly high; stem 150 cm. (110 - 203 cm.), simple, erect, with upper part bent over. Cordate leaves. Flower head slightly arched, fairly broad. Seed ash-grey, lightly striped, entirely filled with the fruit, short, rather small; absolute weight 71.8 g.; shell 15.2 %; oil content in the seed 30.3 %; oil content in the friut 51.1 %.

Semi-early; growing time 123 (90 - 160) days. Resistant to sun-flower math (armoured).

2. Slovak grey: Hybridized through individual selection from material obtained from Bulgarian market seed. Allowed in 1946. Hybridizer: Hybrid Station at Sladkovicovo, okres Galanta.

Stem fairly high 169 cm. (128 - 225 cm.), simple, erect, with the upper part slightly bent over. Leaves large, cordate, Flower head slightly arched, fairly broad (19 cm.). Seed grey-whitish. lightly striped, entirely filled with the fruit, short, rather small; absolute weight 73.2 g.; shell 43.1 %; oil content in the seed 29.2 %; oil content in the fruit 50 %.

Semi-early; growing time 128 (95 - 169) fays. Resistant to sun-flower moth (armoured).

Soja

(Glycine soja (L.) Sieb. Zucc.)

1. Hodonin 'Yellow': Hybridized by the former Hybrid Station at Velke Pavlovice through individual selection from Manchurian

yellow soja. Allowed in 1940. Present hybridizer; Hybrid Station at Valtice, okres Mikulov.

Plants of the stalk type, fairly high to quite high 61 cm (35 - 85 cm.), moderately branched. Stalks rather strong, when mature, purple. Leaves fairly large to quite large, green with grey hairs, petiole and central nerve with red channel; the leaves are shed during ripening. Blossoms small, light violet. Pods fairly long, fairly broad, green with purplish fleck, later brown-yellow, moderately covered with grey down. There are ordinarily 2 - 3 seeds in the pod. Fairly numerous clusters of pods. Seed large, almost round, brown-yellow; absolute weight wieght 73 g. (70 - 75.5 g.); content of nitrogenous matter in the dried grain 39-2 % (33.1 48-2 %), fat content 17.9 % (15.7 - 19.7 %).

Semi-late; growing time 142 (99 - 173) days. Resistant to lodging and shelling, fairly resistant to mosaica, fairly resistant to bacterial stain. Suitable only for warm southern areas.

Safflower

(Carthamus tinctorius L.)

1. Brno 'thornless' : Hybridized by the former Institute for special plants of the ZVUZ in Brno through individual selection from 22 varieties from a world-wide ~~xxxxxxx~~ assotment. Allowed in 1949. Present hybridizer: Hybrid Station at Doksany, okres Roudnice nad Labem.

Stalks high 96.6 cm. (60 - 130 cm.), fairly strong. Leaves lance-shaped without thorns. Blossoms yellow, orange after fading; inner sepals of the calyx lance-shaped, mostly without thorns, though occasionally with. Seed white, wedge-shaped; absolute weight 31.7 g. (26 - 38 g.); oil content 23 % (19 -27 %).

Semi-late; growing time 146 (118 - 181) days.

FIBER PLANTS

During 1956-57 eight hybrid varieties of flax were allowed and acclimatized; and one hybrid variety of hemp was allowed.

Appended to the descriptions of the allowed varieties of flax is the description of a variety which was restricted in 1956.

Seed Flax

(Linum usitatissimum L.)

In describing the varieties of flax the following degrees of classification were employed:

Length of the stalk: 1. short (under 50 cm.), 2. fairly long (51 - 60 cm.), 3. quite long (61 - 70 cm.), 4. long (above 70 cm.).

Size of the capsule: 1. rather small (average length under 7 mm.), 2. fairly large (7 - 9 mm.), 3. large (above 9 mm.).

Shape of the capsule is distinguished as: 1. round, 2. slightly elongated, 3. elongated, 4. slightly flattened, 5. flattened.

Size of the seed: 1. fine (average length under 4 mm.), fairly large (4 - 5 mm.), 3. large (above 5 mm.).

Absolute weight of the seed: 1. low (under 4.5 g.), 2. fairly high (4.6 - 5.5 g.), 3. quite high (5.6 - 6.5 g.), 4. high (above 6.5 g.).

Period of maturity of the variety: 1. early (under 90 days), 2. semi-early (91 - 95 days), 3. semi-late (96 - 100 days), 4. late (above 100 days).

Resistance of the varieties to lodging and fungus diseases is evaluated in the descriptions as: 1. resistant, 2. fairly resistant, 3. less resistant, 4. non-resistant.

Yield of seed: 1. low (under 6 q/ha). 2. fairly high (6 - 7 q/ha), 3. above average (7.1 - 8 q/ha), 4. high (above 8 q/ha)

Content of oil in the seed: 1. low (under 32 %), 2. middling (32 - 35 %), 3. high (above 35 %).

Yield of straw: 1. low (under 30 q/ha), 2. fairly high (31 - 35 q/ha), 3. above average (36 - 40 q/ha), 4. high (above 40 q/ha).

Yield of fibre: 1. low (under 6.3 q/ha), 2. fairly high (6.3 - 7.3 q/ha), 3. high (above 7.3 q/ha).

Quality of the fibre: 1. weak (if according to CSN 80.12.10 the quality index is beneath 14), 2. average (quality index 14 - 18) 3. good (quality index above 18).

1. Domanínek 'productive': Hybridized by the former Agricultural Research Station at Domanínek through individual selection from an Irish flax. Allowed in 1937. Present hybridizer: Hybrid Station at Nový Dvůr u Bystřice nad Pernštejnem.

Stalk quite long to long, fine, with 4 - 5 branches. Fork /rozvětvovací/ leaflet is situated at, or below the fork. blossom fairly large, blue with violet tint; crown petals with slightly wave-like edge, and inconspicuous velning. Sepals slightly spotted when in bloom. Capsule fairly large, round; septa slightly hairy /orasene/. Seed fairly large, light brown; absolute weight low.

Fibre flax. Early. Non-resistant to lodging and fungus diseases. Yield of seed low. Yield of straw middling; yield of fiber high. The fiber is of good quality. During 1956-57 it was acclimatized in the Brno kraj.

2. 'Mountain' /Horal/: Hybridized by the Fiber-plant Research Institute at Šumperk-Temnice through selection from a native Latvian variety. Allowed in 1950. Present hybridizer; Hybrid Station at Vrbičany, okres Lovosice.

Stalk long, with 3 - 4 branches. Fork / leaflet ordinarily at the fork. Blossom fairly large to quite small,

light blue with violet tint. Sepals with sharp points. Capsule rather small, round to slightly flattened; septa smooth. Seed fairly large to quite small, light brown; absolute weight fairly high.

Fiber flax. Semi-early. Prone to lodging, less resistant to fungus diseases. Yield of seed low. Yield of straw high; yield of fiber high. Fiber of middling to good quality. During 1956-57 it was acclimatized in the Usti n. L. and Liberec krajs.

3. Kerkovo: Hybridized by the Hybrid Station at Kerkovo through individual selection from Slovak Nedersky flax 'F 496'. Allowed in 1938. Present hybridizer: Hybrid Station at Ceska Bela, okres Havlickuv Brod.

Stalk long with 5 - 6 branches. Fork leaflet of the lowest branches ordinarily at the fork, though occasionally beneath it. Blossom fairly large, blue with violet tint; veining of the crown petals quite perceptible. Sepals slightly spotted with sharp point. Capsule fairly large, round; septa slightly hairy. Seed fairly large, bright brown; absolute weight fairly high.

Fiber flax. Semi-early. Prone to lodging, less resistant to fungus diseases. Yield of seed fairly high. Yield of straw high; yield of fiber high. Fiber of good quality. During 1956-57 it was acclimatized in the Jihlava kraj.

4. Modra: Hybridized by the Fiber Plants Research Institute at Sumperk-Temenice through individual selection from a natural cross of various strains of Mazovian flax. Allowed in 1952. Present hybridizer: Hybrid Station at Turciansky Peter, okres Martin.

Stalk quite long, with 4 - 6 branches. Fork leaflet ordinarily at the fork. Blossom fairly large, blue. Sepals very slightly spotted when in bloom. Capsule fairly large

round; absolute weight middling to rather high.

Fiber flax. Semi-late. Fairly resistant to lodging, less resistant to fungus diseases. Yield of seed high. Yield of straw middling; yield of fiber high. Fiber of middling to good quality. During 1956-57 it had not yet been acclimatized.

5. 'Rekord': Hybridized by the Fiber Plant Research Institute at Sumperk-Temenice through indidvual selection from a cross of Pskov fiber flax with Prussian and Westfalian oil flaxes. Allowed in 1950. Present hybridizer: Hybrid Station at Uhersko, okres Holice.

Stalk long with 4 - 5 branches. For leaflet ordinarily at the fork, occasionally above or below it. Blossom fairly large, pale blue with tint approaching purple. Sepals without spot, or slightly spotted. Capsule fairly large to rather small, round to slightly elongated; septa smooth. Seed fairly large, brown; absolute weight fairly high.

Fiber flax. Late. In the first stage of development plants of this variety grow rather slowly and have a somewhat altered character--i.e. the leaflets are hairy-like, and light yellow-green; later the stem becomes longer very rapidly, so that in maturity it exceeds in length other varieties; the plants then take on a normal character. Less resistant to lodging, fairly resistant to fungus diseases. Yield of seed middling to low. Yield of straw high; yield of fiber middling. Fiber of middling quality. During 195 -57 it was acclimatized in the Pardubice Gottwaldov, and Ostrava krajs.

6. Sumperk 'fine': Hybridized by the Fiber Plant Research Institute at Sumperk-Temenice through individual selection from a Pskov flax raised in Prussia. Allowed in 1946. Present hybridizer: Hybrid Station at Hrudkovo, okres Kaplice.

Stalk rather long with 4 - 5 branches. For leaflet ordinarily at the fork, though more rarely beneath it. Blossom fairly large, blue with violet tint. Sepals very slightly spotted. Capsule fairly large, round. Seed fairly large, grey-brown; absolute weight fairly high.

Fiber flax. Semi-late. Less resistant to lodging, fairly resistant to fungus diseases. Yield of seed high to middling. Yield of straw fairly high; yield of fiber middling to high. Fiber of middling quality. During 1956-57 it was acclimatized in the Ceske Budejovice kraj.

7. 'Textilak': Hybridized through individual selection from a Pskov flax raised in Silesia. Allowed in 1950. Present hybridizer: Fiber Plants Researsh Institute at Sumperk-Temenice.

Stalk quite long to long with 5 - 6 branchew. For leaflet ordinarily at the fork. Blossom fairly large, blue with violet tint. Sepals without spot. Capsule fairly large to rather small, round to slightly elongated; septa smooth. Seed fairly large, brown; absolute weight fairly high.

Fiber flax. Semi-late to semi-early. Prone to lodging, less resistant to fungus diseases. Yield of seed middling. Yield of straw high to middling; yield of fiber high to fairly high. Fiber of good quality. During 1956-57 it was acclimatized in the Hradec Kralove, and Olomouc krajs.

8. 'Success'/Zdar/: Hybridized by the Fiber Plants Research Institute at Sumperk-Temenice through individual selection from a cross of Moroccan oil flax with Pskov and Westfalian fiber flaxes. Allowed in 1950. Present hybridizer; Hybrid Station at Sibirina, okres Ricany.

Stalk fairly long, with 5 - 7 branches. For leaflet ordinarily at the fork. Blossom fairly large to quite large, rather light blue with pale violet tint. Sepals rather

long without spots. Capsule large to middling, round, slightly flattened; septa smooth. Seed large, grey-brown with somewhat lighter rim; absolute weight rather high.

Oil and fiber flax. Semi-late. Fairly resistant to lodging, prone to fungus diseases. Yield of seed high; seed have high oil content. Yield of straw high; yield of fiber high with below average output/vyteznost/ percentum. Fiber of middling quality. During 1956-57 it was acclimatized in the Praha, Plzen, and Karlovy Vary kraje.

'Novum': Hybridized by the Fiber Plants Research Institute at Sumperk-Temenice through individual selection from a cross of Moroccan oil flax with Pskov and Sorava'Fine' fiber flaxes. Allowed in 1950. Restricted in 1956.

Stalk rather long with 5 - 6 branches. Fork leaflet ordinarily at the fork. Blossom large to middling, blue-violet; crown petals notched along the edge, and with perceptible veining. Sepals rather large, almost without spots. Capsule large, elongated; septa smooth. Seed large, red-brown; absolute weight high.

Oil and fiber flax. Late; Resistant to fairly resistant to lodging, prone to fungus diseases. Yield of seed high; seed have high oil content. Yield of straw high; yield of fiber low. Fiber of rather low quality.

Seeding of this variety can be recognized for the last time during the harvest year 1957.

Seed Hemp

(Cannabis sativa L.)

1. Sumperk: Hybridized by the Fiber Plant Research Institute at Sumperk-Temenice through individual selection from a native Baden hemp. Allowed in 1952. Present hybridizer: Hybrid Station at Trebisovo.

Stalk 180 - 230 cm. high, grooved. Leaves fairly large. Blossoming sparse to fairly thick. Seed fairly large to quite large, grey-brown, mottled; absolute weight 19 - 22 g.

Semi-late variety; growing time 110 - 120 days. Notable for the quite short difference in ripening times between the male and famale plants. Yield of straw above average; yield of fiber high. Fiber of good quality. Yield of seed middling.

FORAGE HERBS

During 1956-57 there were allowed in all forty-five varieties of ten different kinds of forage herbs; of these twenty-one are hybrid varieties, and twenty-four are native.

Red Clover

(real meadow /clover/(Trifolium pratense,ssp.eupratense A.Gr.)

In all fourteen varieties of red clover were allowed, including eight hybrid varieties, and six native. In our descriptions these are divided into two groups: a) two-crop red clover- twelve varieties; b) one-crop red clover-- two varieties.

The following degrees of classification were employed in describing the varieties:

Height of the stem: 1. low (under 55 cm.), 2. fairly high (56 - 75 cm.), 3. High (above 75 cm.).

Size of the leaves: 1. small (length under 2 cm.), 2. fairly large (2 - 4 cm.), 3. large (longer than 4 cm.).

Period of maturity of the varieties: 1. early, with growing time from the appearance of the first spring sprouts to the initial blossom (10 % of the plants under 75 days), 2. semi-early (76 - 90 days), 3. late (above 90 days).

Varieties of two-crop red clover.

1. Czech native: This embraces a large number of currently raised Czech native varieties of more or less different bot anical types, and diverse biological and utility characteristics. Allowed in 1941.

2. Holy's: Hybridized by prof. K. Holy at Svamberk through selection from a Swiss Mattenklee clover coming from a collection made in the Buchesberg mountains. Allowed in 1935. Hybridizer: Hybrid Station at Svamberk, okres Trebon.

Fairly high stems, less fine, green. Leaves fairly large green or dark green, mostly without markings, or with inconspic-

uous lines. Flower heads large, red to deep red. Occasionally there are even twin heads, or white heads. Seed with middling to quite high proportion of grains clear yellow, with middling proportion of grains clear purple, a notable proportion of purplish grains, and low proportion of residue. No colour group predominates; absolute weight quite high.

Semi-early. Catches very quickly after sowing. Seldom lodges. Middling yield of seed. High yield of green manure and dry matter. Does well even in mountain regions.

3. Chlumec: Hybridized through individual selection from a native Czech clover. Allowed in 1935. Hybridizer: Hybrid Station at Chlumec n. Cidl., okres Novy Bydzov.

Stems fairly high, fairly fine, green. Leaves quite small to middling, mostly green, more rarely light green, ordinarily with distinct line; only an inconsiderable number of leaves are indistinctly lined, or lineless. Flower heads large, abundant, red, slightly purplish. Seed mostly yellow, with low proportion of purple and purplish grains, and with low to middling proportion of residue; absolute weight middling.

Late. Development in the year of sowing slow. Remarkably resistant to lodging. Yield of seed high. Yields of green manure and dry matter good. Suitable particularly for rather low and middling locations.

4. Jicin: Hybridized through selection from an old native variety from the Jicin region. Allowed in 1943. Hybridizer: Hybrid Station at Jicin.

Stems fairly high to high, less fine, green. Leaves fairly large to quite large, green and dark green, with a larger proportion (not, however, exceeding the half) of leaves with distinct line, and lesser, almost equal proportions of slightly lined, or lineless leaves. Flower heads fairly large, fairly abundant, red to purplish red. No colour predominates in the seed; absolute weight middling.

Quite late. Spreads very rapidly in the year of sowing. Seldom lodges. Yield of seed middling. Yields of green manure and dry matter high. Plastic variety.

5. Kerkovo: Hybridized through individual selection from a cross of a native Czech-Moravian Highland variety with a hybrid Visnove short-stemmed variety. Allowed in 1952. Hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

Stems fairly high, fine, mostly green. Leaves fairly large to quite large, mostly green, most often with distinct line, though also with indistinct line or without any. Flower heads fairly large, rose-cloored to purple-rose. Seed predominantly yellow-violet and light violet, proportions of dark violet and yellow grains low; absolute weight middling.

Semi-late. Catches very quickly after sowing. Subject to maderate lodging. Yield of seed high. Yield of green manure middling, yield of dry matter high. Especially suitable for dry locations.

6. Litomysl native: Native variety obtained from a selection of the best growths of an old Czech native clover from the Litomysl area. Allowed in 1954. Hybridizer: Hybrid Station at Uhretice, okres Chrudim.

Stems fairly high, fine, green, though with a small proportion of purple. Leaves quite small, green, mostly with a rather distinct line. Flower heads rather small, abundant, most often light red. There are frequently double heads. No color predominates in the seed; absolute weight middling to quite high.

Semi-early to early. Sprouts strongly. Fairly resistant to lodging. Yield of green manure and dry matter middling to high. Suitable especially for quite high and mountain areas.

7. Moravian native: This includes a large number of regularly cultivated old Moravian varieties more or less diverse in their

morphological features, and biological and utility characteristics. Allowed in 1941.

8. Prerov: Hybridized by the former ZUZR at Prerov through individual selection from a native Central Moravian variety. Allowed in 1940. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Stems high, fairly fine, green, though with a lesser proportion of dark green and purplish. Leaves large, dark green, mostly with fairly noticeable line, but a quite large proportion of the leaves are without lines. Flower heads fairly large, abundant, red. No color predominates among the seed; absolute weight high.

Semi-early. Spreads quite rapidly after sowing. Resistant to lodging. Yield of seed high. Yield of green manure and dry matter above average. Tolerates even rather high and quite cold locations.

9. Slovak Lower Tatra native: Native variety obtained by the Hybrid Station at Velke Lomnice through selection of the best growths of a native Lower Tatra clover from the areas around Kezmarok and Poprad. Allowed in 1949.

Medium high ti high stems, fairly fine, green, though with a small proportion of purplish. Leaves fairly large, deep green, mostly with rather indistinct line. Flower heads fairly large, light to dark red-violet. No color predominates among the seed; absolute weight middling.

10. Tabor: Hybridized by the former Agricultural Research Station at Tabor through individual selection from native clovers of the Tabor region. Allowed in 1940. Present hybridizer: Hybrid Station at Slapy, okres Tabor.

Stems fairly high, fairly fine, green, though with a noticeable proportion of dark green and purplish. Leaves

quite small, light green or green, with about the same proportions of leaves without line, with indistinct line, and with distinct line. Flower heads large, abundant, deep red. Seed with a large proportion of clear purple grains, a middling proportion of purplish grains, and a low proportion of clear yellow or other-colored grains; absolute weight middling.

Very early. Developes very rapidly after sowing. Resistant to lodging. Yield of seed high. Yield of green manure and dry matter slightly above average. Suitable for quite high locations.

11. Trebic(Brno): Hybridized by the former Agricultural Research Institute at Brno through selection from native varieties from the Czech-Moravian Highland. Allowed in 1940. Hybridizer: Hybrid Station at Slavice, okres Trebic.

Quite high stems, fairly fine, green, though with a smaller proportion of purplish and dark green stems. Leaves fairly large, green to dark green, mostly with distinct line. Flower heads fairly large to large, abundant, light red. No color predominates among the seed, although there is a rather small though notable proportion of clear violet grains; absolute weight middling to high.

Semi-early. It is quite resistant to lodging and winters well. Yield of seed middling to quite high. Yield of green manure and dry matter average to rather high. Especially suitable for quite high locations.

12. Vigl'ase: Hybridized through selection fromaa native variety from the Zvolen region. Allowed in 1950. Hybridizer: Hybrid Station at Vigl'ase, okres Zvolen.

Medium high stems, rather coarse, purplish. Leaves fairly large, dark green, almost without lines. Flower heads fairly large, deep red. No color predominates among the seed; absolute weight middling to high.

Semi-early to early. Resistant to frost. Yield of seed middling. Yields of green manure and dry matter average to above average. Suitable for rather high and mountainous locations.

Varieties of one-crop red clover.

1. Czech native one-crop: Allowed in 1941.

2. Moravian native one-crop: Allowed in 1941.

These include a number of regularly cultivated old Czech and Moravian native one-crop red clovers, more or less diverse in morphological features and biological and utility characteristics. Especially suitable for quite high mountain and valley locations.

White Creeping Clover

(Trifolium repens L.)

Three native, and one hybrid variety are allowed.

1. Czech native: Allowed in 1941.

2. Moravian native: Allowed in 1941.

3. Slovak native: Allowed in 1949.

These include a number of regularly cultivated old Czech Moravian, and Slovak native varieties of white clover, more or less diverse in morphological features, and in biological and utility characteristics.

4. Vigl'ase: Hybridized by the Hybrid Station at Vigl'ase through selection from a native variety from the neighbourhood of Vigl'ase. Allowed in 1950. Present hybridizer: Hybrid Station at Turciansky Peter, okres Martin.

Stems fairly high, concave, greenish. Leaves small, dark green, with barely distindt line. Flower heads fairly large, white with reddish tint. Blossoms and ripens rather unevenly. Seed very small, yellow; absolute weight low.

This variety is of a very creeping, and heavily foliate type. It winters well, and tolerates being used as pasturage very well. Yield of seed under favourable conditions above average. Yields of green manure and dry matter quite high.

All the varieties of white clover are very tolerant both as regards soil and climatic conditions.

Crimson, Incarnate Clover.

(Trifolium incarnatum L.)

1. Czech native: Allowed in 1941.

2. Slovak native: Allowed in 1949.

Various native varieties of Czech and Slovak clovers are regularly cultivated which, according to their place of origin, differ from each other both as to certain morphological features, and biological and utility characteristics.

Suitable for soils rich in lime.

Swedish Clover.

(Trifolium hybridum L.)

1. Czech native: Allowed in 1941.

2. Moravian native. Allowed in 1941.

These include xxxxxxx old Czech and Moravian varieties which are regularly cultivated, and which, according to their place of origin differ from each other both as to certain morphological features, and as to biological and utility characteristics.

They are suitable for areas with a great deal of moisture both in the soil and the air (where red clover will not thrive due to excess moisture), and with sufficient nutrients will thrive in such locations even in very poor soils.

White Melilot.

(Melilotus albus Desr.)

1. Native: Allowed in 1950.

Fairly high plants, stems rather weak, extensively branched, well foliate. Leaves rather light green. Blossoms consist of numerous small white, thickly clustered flowerlets. Seed fairly large, yellow. Ripens poorly. Suitable for poor sandy soils sufficiently supplied with moisture. Resistant to frost and drought.

Common Bird's Foot Clover.

(Lotus corniculatus L.)

Four hybrid, and three native varieties are allowed.

In describing the varieties, the follwing degrees of classification were employed:

Length of the stem: 1. low (under 45 cm.), 2. fairly high (46 - 55 cm.), 3. high (above 55 cm.).

Period of maturity of the variety: 1. early (Under 95 days), 2. semi-early (96 - 115 days), 3. late (above 115 days).

1. Malejovsky: Hybridized through individual selection from a native Czech variety. Allowed in 1950. Hybridizer: Hybrid Station at Uhretice, okres Chudrim.

Long stems, fine, mostly concave. Leaves broad, green. Blossoms yellow, buds rose-colored. Seed large; absolute weight high.

Semi-early. Two- and three-crop. Resistant to frost and drought, and sufficiently resistant to lodging. Yield of seed above average. Yields of green manure and dry matter high.

2. Tabor: Hybridized by the former Agricultural Research Station at Tabor from a native variety from the Sumava. Allowed in 1941. Present hybridizer: Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Stems high, fine, green. Leaves broad, green. Blossoms bright yellow, blooming time relatively short. Seed large; absolute weight high.

Semi-early. Two- to three-crop. Resistant to frost, drought, and lodging. Yields of seed middling. Yields of green manure and dry matter high.

3. Trebic: Hybridized through selection from a native variety from the Czech*Moravian Highland. Allowed in 1954. Hybridizer: Hybrid Station at Slavice, okres Trebic.

Stems high, fine, green to light green Leaves fairly large to large, green to light green. Blossoms light golden yellow. Blooms evenly, abundantly, fades and ripens rapidly. Seed large, green-brown; absolute weight high.

Early. Two-crop and persistant. Resistant to frost and drought. Yield of seed high. Yields of green manure, and dry matter middling to high. Also suitable as pasturage.

4. Vigl'ase: Hybridized from a native variety from the Zvolen region. Allowed in 1950. Hybridizer: Hybrid Station at Vigl'ase, okres Zvolen.

Stems high, slightly angular to round, full. Leaves fairly large, green to light green. Blossoms at first light yellow, gradually changing to a deep yellow to reddish color. Seed large, brown; absolute weight middling to quite high.

Semi-early, two-crop. Winters well, tolerates drought. Yield of seed middling. Yields of green manure and dry matter good.

5. Czech native: Allowed in 1950.

6. Moravian native: Allowed in 1941.

7. Slovak native: Allowed in 1949.

These last three include old native varieties regularly cultivated which, according to their place of origin, differ more or less from each other in morphological, biological, and utility characteristics.

Varieties of common bird's foot clover are especially suitable for areas where clover and alfalfa are affected by the dryness and in consequence produce uncertain and poor quality crops.

Swamp Bird's Foot Clover.
(Lotus uliginosus Schkuhr)

1. Czech native: Allowed in 1949.

This includes native varieties regularly cultivated in Bohemia which, according to their place of origin, may differ both in morphological features, and biological or utility characteristics from each other.

Suitable for very wet and poggy soils where other forage herbs will not grow. It cannot of course be entirely flooded.

Kidney Vetch.
(Anthyllis vulneraria L.)

One native variety and two hybrid varieties are allowed.

1. Native: Allowed in 1941.

This includes native Czechoslovak varieties regularly cultivated which, according to their place of origin, differ from each other as to morphological features, and biological or utility characteristics.

2. Tabor: Hybridized through selection from the best native Czech and Moravian varieties. Hybridization begun at the former Agricultural Research Station at Tabor, and completed at the Hybrid Station at Cerveny Dvor u Mesic, okres Tabor. Allowed in 1956.

Spreading plants, stems rather fine, tending to rest on ground. Leaves fairly large to large, green to dark green, without lines, slightly downy underneath. Blossoms large, yellow. Blooms abundantly and unevenly. Seed fairly large, yellow green; absolute weight middling.

Early to semi-early. Winters well. Yield of seed middling. Yields of green manure and dry matter high. Especially suitable for rather low and middling locations.

3. Trebic: Hybridized through selection from native varieties from the higher areas of the Moravske Budejovice okres. Allowed in 1956. Hybridizer: Hybrid Station at Slavice, okres Trebic.

Erect plants, stems quite strong, tending not to rest. Leaves large, deep olive green, slightly downy on the underside. Blossom large, yellow with red tint. Blooms abundantly and evenly. Seed large, yellow, with conspicuous green embryo part; absolute weight high.

Very early. Winters well. Yield of seed above average. Yields of green manure and dry matter good. Especially suitable for rather high locations.

The varieties of kidney vetch tolerate drought, dampness, winter and spring frosts, and do well even in shallow gravelly soils. They grow best in ~~xxxxx~~ sandy soils with sufficiently moist sub-soil, and in marl soils.

Sainfoin.

(Onobrychus viciaefolia ssp. sativa (Lam) Thell.)

One hybrid variety and one native variety are allowed.

1. Moravian native: An old native variety cultivated in the neighbourhood of Kyjovo, Moravske Budejovice, and Brno. Allowed in 1944.

Leafy plant, semi-erect type, fairly high to high 73 (45 - 90) cm. Stems fairly strong to rather weak, sufficiently resistant to lodging. Middling proportion of leaves (28.5 %). Blossoms fairly large, very abundant, rose to dark rose in color. Early blooming. Seed fairly large, occurence of seeds middling to quite thick. Proportion of hay good (24 %). Initial development early to semi-early. Slightly affected by frost.

2. Visnove multi-crop: Hybridized by the former Hybrid Station at Visnove through selection from an oriental sainfoin originating in Turkey. Allowed in 1946. Present hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

Stemmed plant of the erect type, very tall: 90 (60 - 110 cm.). Stems strong, fairly resistant to lodging. Proportion of leaves middling to high (30.5 %). Blossom fairly large to quite large, thick, light rose-colored. Blooms in the first crop semi-early, in the second, earlier than other sainfoins. Seed fairly large, seeds thickly placed. Proportion of hay very good (26 %). Initial growth very early. Winters well.

Alfalfa.

(Medicago sativa L.)

During 1956-57 there were allowed in all nine varieties of alfalfa, including five hybrid, and four native varieties.

In the descriptions of the varieties the follwonig degrees of classification were employed:

Height of the plant: 1. rather low (under 80 cm.), 2. fairly high (81 - 85 cm.), 3. quite high (86 - 90 cm.), 4. high (above 90 cm.).

Proportion of leafage (Percentage of leafage out of the total weight of the matter): 1. rather low (under 35 %), 2. fairly high (35.1 - 37 %), 3. quite high (37.1 - 39 %), 4. high (39.1 - 41 %), 5. very high (above 41 %).

Proportion of hay (percentage og the green matter remaining after drying): 1. rather low (under 22 %), 2. fairly high (22.1 - 24 %), 3. quite high (24.1 - 26 %), 4. high (2611 - 28 %), 5. very high (above 28 %).

1. Brno: Hybridized by the Hybrid Section of the former Zeme Agricultural Research Institutes in Brno through selection from a native variety from Rodnice u Jednovnic na Morave. Allowed in 1941. Present hybridizer: Hybrid Station at Branisovice, okres Moravsky Krumlov.

Fairly high plant , semi-erect. Stems fairly strong, and remarkably resistant to lodging. Leaves fairly large to quite large, green to dark green, very hairy. Proportion of leafage (40.6 %). Blossoms mostly almost dark purple, quite large, fairly abundant. Quite early blooming. Proportion of hay quite high to high (24.9 - 27.9 %). Winters well.

2. Czech native: This is a native variety from the area of Velvary. Allowed in 1941.

Fairly high to high plant, semi-erect. Stems fairly strong, moderately resistant to lodging. Leaves fairly large to large, green to dark green, moderately hairy. Proportion of leafege fairly high ((35.6 %). Blossoms violet to light violet, occasionally dark violet or pure white, quite large to large, moderately abundant. Proportion of hay quite high to high (24.2 - 28.4 %). Winters well.

3. Hodonin: Hybridized by the former Hybrid Station at Velke Pavlovice through selection from a natural cross of a native Moravian variety with 'Grimm's' alfalfa. Allowed in 1940. Present hybridizer: Hybrid Station at Cejce, okres Hodonin.

Tall plant almost erect. Stems fairly strong, sufficiently resistant to lodging. Leaves fairly large to large, broad, green to dark green, heavily covered with hairs. Proportion

of leafage rather high (38.4 %). Blossoms mostly light violet, quite large to large, fairly abundant. Bloming fairly late. Proportion of hay high (25.2 - 28.3 %). Winters well.

4. Kastice: Hybridized through selection from a native variety from the neighbourhood of Podborany. Allowed in 1932. Hybridizer: Hybrid Station at Kastice, okres Podborany.

Fairly high plant, erect. Stems fairly strong, fairly resistant to lodging, leaves fairly large to quite large, green, very hairy. Proportion of leafage quite high (38.8 %). Blossoms mostly dark purple, occasionally white, fairly large, fairly abundant. Blooming early. Proportion of hay high (26.1 - 28.9 %). Winters well.

5. Moravian native: Old native variety from the neighbourhood of Ivancice i Moravskeho Krumlova. Allowed in 1941.

Fairly high to high plant, semi-erect. Stems fairly strong, fairly resistant to lodging. Leaves fairly large, green, very hairy. Proportion of leafage high (39.4 %). Blossoms light to dark violet, fairly large, abundant. Blooms early. Proportion of hay high (26 - 28.3 %). Winters well.

6. Prerov: Hybridized by the former ZVUZR at Prerov through selection from an old Hanak variety from the Prerov area. Allowed in 1939. Present hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov.

Fairly high to high plant. Stems fairly strong, remarkably resistant to lodging. Leaves fairly large to quite large, dark green, very hairy. Proportion of leafage quite high to high (39.2 %). Blossoms mostly dark violet, occasionally ~~light~~ violet, fairly large, fairly abundant to abundant. Blooms fairly early. Proportion of hay high ((25.3 - 27.9 %). Fairly resistant to frosts.

7. Slovak Danube native: Native variety from the area of Cierna Voda u Galanta. Allowed in 1949.

Fairly high plant. Stems fairly strong to quite strong, fairly resistant to lodging. Leaves fairly large to quite large, green, moderately hairy. Porportion of leaves quite high to high (39.3 %). Blossoms violet to dark violet, more rarely light violet, occasionally whitish, fairly large, fairly abundant. Blooms semi-early. Proportion of hay high (26.3 - 27.9 %). Winters well.

8. Slovak Trebisovo native: Native variety from the neighbourhood of Trebisovo. Allowed in 1949.

Fairly high to rather low plant, semi-erect. Stems fairly strong to quite strong, fairly resistant to lodging. Leaves fairly large, green to dark green, very hairy. Proportion of leafage quite high (38.4 %). Blossoms violet to light violet, more rarely dark violet, fairly large to quite large, quite abundant. Blooms fairly early to quite late. Proportion of hay high (25.4 - 28 %). Moderately resistant to freezing.

9. Stupice: Hybridized through selection from a native Czech variety. Allowed in 1950. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Fairly high plant, semi-erect. Stems fairly strong to rather weak, fairly resistant to lodging. Leaves fairly large, green, quite hairy. Proportion of leafage high to quite high (37.6 %). Blossoms dark to light violet, occasionally white or yellow, quite abundant. Blooms very early. Proportion of hay quite high to high (25.7 - 27.5 %). Winters well.

7. Slovak Danube native: Native variety from the area of Cierna Voda u Galanta. Allowed in 1949.

Fairly high plant. Stems fairly strong to quite strong, fairly resistant to lodging. Leaves fairly large to quite large, green, moderately hairy. Porportion of leaves quite high to high.(39.3 %). Blossoms violet to dark violet, more rarely light violet, occasionally whitish, fairly large, fairly abundant. Blooms semi-early. Proportion of hay high (26.2 - 27.9 %). Winters well.

8. Slovak Trebisovo native: Native variety from the neighbourhood of Trebisovo. Allowed in 1949.

Fairly high to rather low plant, semi-erect. Stems fairly strong to quite strong, fairly resistant to lodging. Leaves fairly large, green to dark green, very hairy. Proportion of leafage quite high (38.4 %). Blossoms violet to light violet, more rarely dark violet, fairly large to quite large, quite abundant. Blooms fairly early to quite late. Proportion of hay high (25.4 - 28 %). Moderately resistant to freezing.

9. Stupice: Hybridized through selection from a native Czech variety. Allowed in 1950. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Fairly high plant, semi-erect. Stems fairly strong to rather weak, fairly resistant to lodging. Leaves fairly large, green, quite hairy. Proportion of leafage high to quite high (37.6 %). Blossoms dark to light violet, occasionally white or yellow, quite abundant. Blooms very early. Proportion of hay quite high to high (25.7 - 27.5 %). Winters well.

GRASSES

During 1956-57 there were allowed in all thirty-three varieties of sixteen different kinds of grasses. Of these only one (awnless brome grass) is a native variety, the others being hybrids.

The varieties improved at Roznovo and Levocsky Luky were hybridized through repeated individual selection combined with group selection. The varieties improved at Vetrovo were hybridized through individual selection of the best growth from material obtained through crossing wild specimens from field plants with specimens from market seed of various origin.

Since most grasses are plants requiring external pollination /cizosprasny/ their varieties do not adhere strictly to types. There thus appears broad variations in characteristics and features among them, which are further heigthened by changes incurred under differing growing conditions at the cultivating stations, and during different years.

For this reason we will present under the varieties descriptions only of the types which predominate among them. The verbal depictions of their chief characteristics and features correspond to the results in ordered monocultures of tests at the chief grass variety testing laboratory at Roznovo pod Radhostem, as compared with observations at five other experiment stations.

Timothy Grass

(Phleum pratense L.)

Three hybridized varieties are allowed.

1. Levoca: Hybridized from material from the Czech lands. Allowed in 1950. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Tussocks fairly high, dense, erect to semi-erect, light green. Culms rather fine. Leafage good. Leaves broad, fairly long; culm leaves bent over. Inflorescence fairly long to long. Developes more heads than other varieties previous to the second mowing. Slightly later than the other allowed varieties.

2. Roznovo: Hybridized by the former Grass-grower's Agricultural Research Institute at Roznovo pod Radhostem from material obtained from wild plants in rather high locations in the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks rather high, quite dense, semi-erect, dark green. leafage good. leaves long, fairly broad; culm leaves erect to projecting. Inflorescence long. Rather early.

3. Vetrovo: Allowed in 1937. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Rather high tussocks, thick, erect to fairly erect, light green. Stems rather fine. Leafage good. Leaves long, broad; culm leaves broad, conspicuously bent over. Infloreseence fairly long to quite short. Very early spring development. Slightly earlier than the Roznovo variety.

Allthree varieties of Timothy grass are suitable for temporary or biennial clover-grass mixtures whether in field or meadow cultivation cycles. They are also suitable for permanent meadow and pasture, particularly in rather damp mountain and highland areas, and peat. The Levoca Timothy grass does especially well in Slovakia.

English Perennial Rye Grass.

(Lolium perenne L.)

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the higher parts of the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks large, thick, semi-erect to erect, green. Stems numerous, fine. Leaves long, broad, soft, bent over. Head rather sparse with small seed. Ripens quite thickly even for the second mowing. Semi-early to rather late. Sufficiently resistant to frost, rather prone to lodging.

Suitable for pastures, game-fields, air-fields, park and other decorative lawns, also for temporary and short term mixtures. Less suitable for permanent meadow.

Italian Rye Grass.

(Lolium multiflorum Lam.)

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from market seed of Italian rye gaass of unknown origin. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Fairly high tussocks, thick, erect to semi-erect, light green. Leafage good. Culm leaves long, braod, projecting to horizontal, bent over, soft. Long head with large seed. Ripens for each mowing. Fairly resiatant to ~~frasix~~ winter freeze.

Suitable for rather favoured locations, especially for irrigated locations, in multi-crop short term clover-grass mixtures, occasionally in winter mixtures with vatch.

Westerwold Annual Rye Grass.

(Lolium annuum westerwoldicum multiflorum Lam.)

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material raised from market seed of unknown origin. Allowed in 1940. Present hybridizer: Hybrid Station at Hladke Zivotice, okres Novy Jicin.

Rather high tussocks, fairly thick, erect to semi-erect, green. Leafage good. Leaves long, broad, projecting to horizontal, bent over, fairly soft. ~~xxxxxxxxxx~~ Head dense. Ripens in the year of sowing. Early.

Suitable as a one year forage grass for spring mixtures, and as a forage grass in pure cultures; as a fill-in for sparse clover-grass mixtures, and as a cover crop for sub-seedings of clover-grass or alfalfa-grass mixtures. Requires early spring sowing.

Red Fescue Grass.

(Festuca rubra L.)

Four hybridized varieties are allowed.

1. Levoca: Hybfidized from material obtained from the Czech countryside. Allowed in 1949. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Tussocks fairly high to quite high, semi-spreading, later semi-erect, green to dark green with a grey tint. Sarmenta fairly long to long. Stems fine. Leafage good. Ground leaves long, fairly broad, culm leaves erect, slightly bent over. Tends to lodge a little. Semi-early.

2. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks rather high, sparse, semi-erect, later erect, light green to green. Runners rather short. Leafage good. Ground leaves fairly long to quite long, broad, soft, bent over; culm leaves broad, slightly bent over. Does not lodge much. Rather early.

3. Tabor: Hybridized by the former Agricultural Research Station at Tabor from material obtained from wild plants in the Tabor region. Allowed in 1937. Present hybridizer: Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Tussocks rather low, thick, semi-erect, dark green. Numerous long sarmenta. Leafage good. Ground leaves long, rather

narrow (especially in the second mowing), quite stiff; culm leaves erect, slightly bent over. Does not lodge badly. Due to its rather strong tendancy to send off runners, it does not sprout very well. Semi-early.

4. Vetrovo: Allowed in 1940. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Bunches fairly high, thick, initially spreading, later semi-erect, green. Numerous runners, fairly long. Ground leaves long, fairly broad, rather soft; culm leaves erect, little bent over. Tendancy to lodge. Semi-early.

All the allowed varieties of red Fescue grass are suitable for permanent meadows and pastures, for decorative lawns, air-fields, play-fields, for reinforcing earthworks and slopes (the Tabor variety is particularly good for this purpose), and for peats. Less suitad for temporary meadows. The Levoca variety is the best for Slovak regions.

Meadow Fescue.Grass.

(Festuca pratensis Huds.)

Four hybridized varieties are allowed.

1. Levoca: Hybridized from material obtained from the Czech countryside. Allowed in 1949. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Tussocks rather high, fairly thick, semi-erect to erect, light green. Leafage good. Leaves fairly long, broad, semi-erect, slightly bent over, soft. Lodges moderately. Rather late.

2. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valasse region. Allowed in 1940. Present hybridiezer: Hybrid Station at Novy Jicin.

Tussocks rather high, rather sparse, erect, lighter green. Leafage very good. Leaves fairly long to quite long, broad,

erect to semi-erect, bent over. Prone to lodge. Early.

3. Tabor: Hybridized by the former Agricultural Research Institute at Tabor from material obtained fromwild plants in the Tabor region. Allowed in 1940. Present hybridizer: Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Tussocks fairly high, rather thick, semi-ercet, dark green. Leafage good. Leaves fairly broad, fairly long, erect to projecting. Does not lodge badly. Late.

4. Vetrovo: Allowed in 1937. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Tussocks fairly high, thick, semi-erect, green. Leafage very good. Leaves rather long, somewhat narrow, erect to projecting. Lodges little. Late.

All the varieties of meadow Fescue grass allowed are suitable for biennial and temporary clover-grass mixtures in field and meadow cultivation cycles; also for permanent meadows and pastures and peat. The Levoca variety is the best for Slokak regions.

Wood Meadow Grasss.

(Poa nemoralis L.)

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase area. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks rather small, quite thin, semi-erect to erect, in the spring light green, after ripening dark grey-green. Leaves fairly long to long, fairly broad to rather narrow, erect. Rather prone to lodging. Semi-early.

Suitable for park lawns, and permanent mixtures; also for meadows and pastures in protected locations.

Blue Grass

(Poa pratensis L.)

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Rdhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present Hybridizer: Hybrid Station at Novy Jicin.

Tussocks fairly high, erect to semi-erect, dark green; with numerous long underground runners. Ground leaves long, fairly broad; culm leaves erect, soft. Has sufficiently numerous stems, and its seed is satisfactory. Sufficiently resistant to rust. Very early.

Suitable for permanent meadows, pastures, for park and decorative lawns, play-fields, air-fields, and for reinforcement of earthworks and slopes.

Fertile Meadow Grass.

(Poa fertilis Hort.)

Allowed are three hybridized varieties.

1. Levoca: Hybridized from material obtained from the Czech country-side. Allowed in 1949. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Tussocks fairly high, quite thick, rather tight, erect to semi-erect, green. Stems rather fine, richly foliate. Leaves fairly long, fairly broad, projecting, slightly bent over. Fairly prone to lodging. Rather late.

2. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks fairly high, rather broad, rather sparse, erect, green to dark green. Leafage good. Leaves long, fairly broad, soft to fairly soft, projecting, bent over. Lodges rather little. Somewhat late.

3. Vetrovo: Allowed in 1952. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Tussocks rather high, thick, erect to semi-erect, light green; after ripening the darker colored inflorescences cause the tussocks to appear dark green. Numerous stems, fine, richly foliate. Leaves fairly long, fairly broad, projecting, slightly bent over. Seed rather dark colored (with violet tint). Lodges. Quite early. Grows rapidly after mowing. When raising for seed manure carefully with nitrogen so that the culture wont lodge.

All the varieties allowed are suitable for meadows and pastures, especially with rather heavy and damp soils; for ornamental lawns, improvement of slopes, peats; also for clover-grass, and alfalfa-grass mixtures. The Vetrovo variety is particularly suited for pasturage, because of its ability to grow rapidly after mowing. The Levoca variety is best for Slovak planting.

Tall Oat-Grass.

(Arrhenatherum elatius Presl.).

Four hybridized varieties are allowed.

1. Levoca: Hybridized from material obtained from the Czech countryside. Allowed in 1949. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Tussocks fairly high, rather thick, erect to semi-erect, light green. Stems fairly fine to quite fine, tending to lodge. Leaves fairly long to long, fairly broad, slightly bent over, fairly soft to soft. Late.

2. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present hybridizer; Hybrid Station at Novy Jicin.

Tussocks fairly high, rather broader, fairly thick, erect to semi-erect, light green. Stems fairly fine, well foliate. Leaves long, broad, bent over, soft, projecting horizontally, bent over. Seed ratyer small. Less apt to lodge, prone to smut. Rather late.

3. Tabor: Hybridized by the former Agricultural Research Institute at Tabor from material obtained from wild plants in the Tabor region. Allowed in 1940. Present hybridizer: Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Tussocks rather high, rather thick, erect to semi-erect, dark green. Stems rather stiff. Leafage good. Leaves fairly long, fairly broad, slightly bent over, fairly soft, erect to horizintally projecting, slightly bent over. Rather early.

4. Vetrovo: Allowed in 1939. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Tussocks high, thick, erect to semi-erect. green. Stems fairly fine. Leafage good. Leaves fairly long, fairly broad to rather narrow, erect to horizintally projecting, slightly bent over, fairly soft to soft. Rather early.

All the varieties of tall oat grass allowed are suitable for rather dry areas. They may be used in biennial and temporary alfalfa-grass and clover-grass mixtures for field and meadow cultivation cycles (particularly the Roznovo variety), also for permanent meadows (especially the Tabor and Vetrovo varieties), for railroad embankments and improvement slopes. The Levoca variety is particularly suited for use in Slovakia.

Trisetum -- Yellowish Oat Grass..

(Trisetum flavescens (L.) P.Beauv.)

Three hybridized varieties are allowed.

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase

region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks rather high, somewhat sparse, semi-erect to erect, light green to yellowish green. Leafage good. Leaves long, broad, erect to projecting, soft, bent over. Semi-early.

2. Tabor; Hybridized by the former Agricultural Research Station at Tabor from material obtained from wild plants in the Tabor region. Allowed in 1948. Present hybridizer: Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Tussocks rather high, thick, green, semi-erect to erect. Leafage good. Leaves fairly long, broad, erect to projecting, rather stiff, bent partially over. Semi-early.

3. Vetrovo: Allowed in 1950. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Tussocks high to rather low, very thick with numerous fine stems, semi-erect, rather extensively covered with down, dark green. Leafage good. Leaves fairly long, rather narrow, erect, slightly bent over. The variety produces few heads after the first mowing, but forms great quantities of ground leaves. Late.

All the varieties of Trisetum allowed are suitable for permanent meadows and pastures, also for temporary forage mixtures and biennial clover-grass mixtures. The Vetrovo type is the most suitable for pasturage.

Crested Dog's Tail Grass.

(Cynosurus cristatus L.)

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks small, fairly high, thick, erect, dark green. Stems stiff. Leafage in general rather weak. Ground leaves fairly long, fairly broad, bent over; culm leaves rather short, rather narrow, especially abundant during the second growth. Less resistant to frosts.

Suitable for permanent meadows, play-fields, air-fields. Less good for pastures. Forage grass value rather low.

Meadow Foxtail.

(Alopecurus pratensis L.)

1. Vetrovo: Allowed in 1940. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Tussocks fairly high, fairly thick, semi-erect to erect, rather dark green, predominantly grey green. Leaves long, broad soft, projecting, slightly bent over. Inflorescence fairly long. A rather large percentage of the heads are dark with grey-black seed. Semi-early.

Suitable for early-crop meadows (three mowings) in damp locations, for pastures and peat.

Red Top.

(Agrostis Alba L.)

Two hybridized varieties are allowed.

1. Levoca: Hybridized from material obtained from the Czech countryside. Allowed in 1949. Hybridizer: Hybrid Station at Levocske Luky, okres Levoca.

Tussocks fairly high, fairly thick, semi-erect to erect, green. Runners fairly abundant, fairly long. Leaves fairly long, broad, projecting to horizintally projecting, slightly bent over. Rather late.

2. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at

Novy Jicin.

Tussocks fairly high to high, thick, erect to semi-erect, rather light green. Runners abundant, fairly long to long. Leaves very long, broad, almost horizontally projecting, mostly bent over. Stems numerous, rather fine.

Both varieties of Red Top are chiefly suited for rather heavy and damp soils in mountain and highland locations for permanent and temporary pastures and meadows, for air-fields, play-fields, ornamemtal lawns, embankments, and slopes, and peat. The Levoca variety is the best suitaed for planting in Slovakia.

Orchard Grass.

(Dactylis glomerata L.)

Two hybridized varieties are allowed.

1. Roznovo: Hybridized by the former ZVUT at Roznovo pod Radhostem from material obtained from wild plants in the Valase region. Allowed in 1940. Present hybridizer: Hybrid Station at Novy Jicin.

Tussocks fairly high, erect to semi-erect, light green. Stems smooth, fine. Leafage good. Leaves long, fairly broad, soft, with lrss rough edges, projecting horizontally, continuous /spyvave/ to bent over. Rather early.

2. Vetrovo: Allowed in 1939. Hybridized by the Hybrid Station at Vetrovo, okres Tabor.

Tussocks fairly high, at first spreading, later semi-erect, green. Stems fairly fine to rather coarse, rather rough. In general the leafage is good. Leaves long, broad, soft with rather sharp edges, projecting, continuous. Rather late.

Both these varieties are suitable for biennial alfalfa-

grass and temporary clover-grass mixtures, whether in field or in forage grass cultivation cycles, especially in rather dry regions; also for permanent meadows, pastures, slopes, and orchards.

Awnless Brome Grass

(Bromus inermis Leyss)

1. Slovak native: Allowed in 1952.

Tussocks high, erect to semi-erect, light to dark green. Underground runners long to very long. Stems mostly slightly downy. Leafage good. Leaves long, broad, bent over. When mowed early (when beginning to ripen) it provides valuable forage.

Suitable for very dry warm areas in alfalfa-grass and sainfoin-grass mixtures, for permanent and temporary meadows, and for reinforcing slopes and dikes.

ONE-YEAR FORAGE GRASSES

BROOM SORGHUM.

During 1956-57 there were allowed in all six varieties of five different kinds of these forage grasses. One is a hybridized variety. The others are native varieties.

Sugar Sorghum

(Sorghum saccharatum Moench)

1. Slovak native: Allowed in 1949.

Plants 160 - 275 cm. high. Stem 1.5 - 2.5 cm thick with thin sweet sap. Leaves 60 - 70 cm long, 6 - 8 cm broad, green, central nerve grey-green. Panicle on the average 30 - 35 cm long, elongated oval shape, compact. Seed chaffy, slightly open at the tip, somewhat truncated on both ends, brown-yellow.

Growing time 82 - 152 days. Sprouts feebly. Little resistant to uprooting. Must have warm climate. Its seed ripen

only in the warmest locations. Likewise it only produces a sure and satisfactory forage crop in warm regions. It may be used for the manufacture of syrop.

Broom Sorghum.

(Sorghum dochna (Forsk.) Snovd.---syn. Sorghum technicum (Kern.) Rozev)

1. Slovak native: Allowed in 1949.

Plants 180 - 230 cm. high. Stems 1.7 - 2.2 cm thick, filled with sap. Leaves on the average about 70 cm long, 8 cm broad, dark green, central nerve slightly yellowish. Panicle on the average 60 cm long, extensively branched, compact to spreading. Seed chaffy, slightly open at the tip, eliptical, on the bud side slightly truncated, yellowish brown.

Growing time 120 - 156 days. Sprouts weakly. Resistant tp up-rooting. Depends on warmth. Its seed only ripen in the warmest regions. It may be raised for green manure, dry matter, and silage. The panicles may be used for the manufcture of brushes and brooms.

Italian Millet.

(Setaria italica var. moharia (L.) P.Beauv.)

1. Slovak native: Allowed in 1949.

Plants 70 - 120 cm high with erect ear-like panicle. Growing time about 120 days, though it provides green forage 60 - 80 days after sowing. It is raisedffor green forage or hay. Suitable for rather light and fairly heavy soils. Its greatest importance is as a stubble crop for wet areas.

Sudan Grass.

(Sorghum sudanense (Pip.) Stapf.)

1. Slovak native: Allowed in 1949.

Plants 120- 220 cm tall. Stems on the average 0.6 - 0.9 mm thick, moderately foliate. Leaves on the average 52 cm long, 2 cm broad, dull green, hunt [illegible]

2 cm broad, dull green, bent over. Panicle ovally pyramidal, erect, spread, ordinarily 40 cm long. Seed chaffy, escaping form the shell only with difficulty, farinaceous to semi-horny.

Growing time 118 - 150 days. Sufficiently resistant to lodging. Suitable for cultivation in good middling to rather heavy soils in warm regions as green manure, dry matter, or as silage. Under favourable conditions it can be mown twice. Sufficiently resistant to drought.

Binding Grass.

(Phacelia tanacetifolia Benth.)

One hybridized variety and one native variety are allowed.

1. Vetrovo: Hybridized through selection from material obtained from crossing native varieties with plants raised from market seed. Allowed in 1952. Hybridizer: Hybrid Station at Vetrovo, okres Tabor.

Plants fairly high. Leaves fairly broad with shallow notches. Stems and leaves slightly to moderately covered with hairs. Blossoms abundant, blue with violet tint, pale when fading. Seed brown to dark brown , absolute weight rather high 1.82 g. (1.3 - 3.1 g.). Developes very rapidly, tolerates passing droughts and late frosts well. Suitable as a stubble forage grass, and for stubble mixture for quite dry locations, rather light soils and late sowing. Melliferous plant.

2. Slovak native: Allowed in 1949.

This embraces several native Slovak varieties, somewhat differing from each other according to their place of origin, and in regular cultivation in a small region.

POTATOES

(Solanum tuberosum L.)

During 1956-57 there were allowed and acclimatized in all twenty varieties of potatoes. Their descriptions are divided into three groups: 1. early varieties, 2. industrial varieties, 3. other varieties.

Appended to the descriptions of the varieties allowed are descriptions of two varieties restricted in 1956.

In describing the varieties, the following degrees of classification were employed:

Period of Maturity of the Varieties: 1. very early (with average growing time under 100 days), 2. early (101 - 110 days), 3. semi-early (111 - 120 days), 4. semi-late (121 - 140 days) 5. late (above 140 days).

Yield of Tubers: 1. low (under 150 q/ha), 2. middling (151 - 300 q/ha), 3. high (above 300 q/ha).

Starch Content: 1. low (under 15 % starch), 2. middling (15.1 - 18 %), 3. high (above 18 %)

Type of Bunch: 1. stemmed (the stems not hidden by the leaves, so that they are rather conspicuous), 2. leafed (stems hidden by the leaves, so that they are only partially visible).

Angularity of the Stems (referring to the longitudinal growths on the edges of the stems): 1. undulating, 2. non-undulating (straight).

Resistance to Diseases: In the descriptions, the virus diseases, to which the varieties are most frequently subject, are mentioned in parenthenses.

Early varieties.

1. 'Amber': Hybridized through individual selection from an Erstling variety xxxx crossed with the Kerkovo cross 'B/53'. Allowed in 1954. Hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

Early table variety providing a middling yield of tubers with very good flavor, and middling starch content (15.6 %). Adapted to germination before planting.

Bunches range from the leafy to stemmed type. Stems fairly high, quite ramified, green with slightly violet tint. Leaves compound; leaflets broadly oval, undulating, green, slightly shiny. Inflorescence mostly with only one blossom, on short stem. Flowers white, rather small. Blooms infrequent, seed-ball not fertile/nenasazuje/. Tubers kidney-shaped, quite full. Skin yellow-brown, often netted. Flesh yellow to deep yellow, semi-farinaceous to tallowish. Eyes shallow. Sprouts in the light light red-violet, fairly strong, hairy.

The variety is resistant to canker; fairly resistant to virus diseases (crisping /blight/, leaf curl /kaderavost, svinutka/); sufficiently resistant to scab, quite prone to potato blight /plisen/ . Quite sensitive when laid away (sprouts considerably).

Suitable for rather light, middling, and somewhat heavier soils which are well supplied with nutrients. During 1956-57 it was acclimatized in the Prague, Hradec Kralove, Pardubice, Jihlava, Brno, and Kosice krajs.

2. Bintje: Hybridized by the Hybrid Station at Kerkovo through individual selection from the Kerkovo 'Ideal' variety. Allowed in 1950. Present hybridizer: Hybrid Station at Vyklantice, okres Pacov.

Early to semi-early table variety providing a middling yield of tubers with very good flavor, and middling starch content (15 %). Adapted to germination before planting.

Bunches of the leaed type. Stems fairly high, quite strong, gree green with blue-violet tint. Leaves quite pinnate; leaflets large, broadly oval, quite ribbed, pendant, dark green, later blue-violet at the edges. Blossom white, rather small; calyx dark blue-violet, hairy. Blooms infrequently; seed-ball not

fertile. Tubers kidney-shaped to an elongated oval-shape, flat. Skin yellow-brown, smooth. Flesh yellowish to yellow, tallowish to semi-farinaceous. Eyes shallow. Blue-violet, fairly strong sprouts in the light

The variety is non-resistant to canker, quite resistant to virus diseases (crisping), potato blight, scab, and spongospora. Tolerates dry quite well. When laid away moderately s sensitive (sproute moderately.

Suitable for fairly heavy, rather deep soils. Requires good agro-technique. During 1956-57 it was acclimatized in all krajs in CSR.

3. Czech Erstling: Hybridized through individual selection from a Dutch Erstling. Allowed in 1936. Hybridizer: Hybrid Station at Kerkovo, okre Zd'ar n. S..

Very early table variety providing rather low to middling yields of tubers with good to very good flavor, and with middling starch content (14.3 %). Adapted to germination before planting, and very early harvest.

Bunches range from the stemmed to the leafed type. Stems rather low, rather weak, broken over, green, with red-brown ribbing. Leaves mildly pinnate. Leaflets an elongated oval shape, flat, green. Flowers greenish-white, buds fall off easily. Blooms infrequently; the later bunches bloom abundantly; seed-ball not fertile. Tubers of elongated oval shape to kidney-shaped, slightly flattened. Skin yellow-brown. Flesh yellow, tallowish to semi-farinaceous. Eyes shallow. Light violet-red, quite strong, hairy sprouts in the light

The variety is non-resistant to canker, to virus diseases (crisping, mosaic), scab, and to potato blight. Sensitive when laid away (sprouts very shortly).

Suitable in rather light and middling soils. Will not

tolerate heavy or slimy soils. Requires careful agro-technique. During 1956-57 it was acclimatized in all krajs in CSR.

4. 'Spring' (17/45): Hybridized through selection from a cross of the variety Irish Cobbler with Sonnenragis. Allowed in 1956. Hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

Very early table variety providing rather low to middling yield of tubers of good to very good flavor, with middling to rather low starch content (15 %). Adapted to germination before planting and very early harvest.

Bunches of the leafed type. Stems rather low to fairly high, later collapsed over, light green, brittle. Leaves quite pendant, leaflets large, light green, shiny, broadly oval, with rather long tip, mildly pinnate. . Blossoms white, calyx hairy. Blooms inconspicuously, ordinarily dropping the buds. Seed-ball not fertile. Tubers of elongated oval shape to kidney-shaped, slightly flattened, brittle. Skin light yellow to yellow-brown. Flesh yellowish to yellow. Eyes shallow. Green, fairly strong sprouts in the light

The variety is resistant to canker, fairly resistant to virus diseases (mosaic, spottedness/carkovitist/), non-resistant to potato blight and silver leaf /stribritost/. Often suffers from a physiological curling up of the leaves.

Suitable for rather light soils in early potato regions. Requires special agro-technique(pre-planting germination of the tubers and watering). During 1956-57 it was acclimatized in the beet-growing regions of the Prague kraj, specifically in the early potato-growing regions with rather light soils of the Brandys n. L., Cesky Brod, and Nymburk okreses.

5. Kerkovo 'Little Rolls'/rohlicky/: Hybridized through individual selection from a cross of Visnovo 'rohlicky' with Parnassia by the Hybrid Station at Kerkovo u Kribyslavi. Allowed in 1941. Present hybridizer: Hybrid Station at Ceska bela, okres Havlickuv Brod.

Semi-ealry table delicacy variety providing rather low to middling yield of tubers of very good flavor, with rather high starch content (16.7 %).

Bunches of the stemmed type, thick. Numerous stems, fairly high, rather weak, with undulating angles, light green. Leaves. richly pinnate; leaflets rather small, broadly oval, light green, dull. Flowers dark blue-violet with white tips on long stem; occasionally there are double flowers. Blooms abundantly, seed-ball not fertile. Tubers round to kidney-shaped. Skin yellow-brown. Flesh yellow, tallowish. Eyes shallow. Buds red-violet, long.

The variety is resistant to canker, failry resistant to virus and stem diseases (Leaf curl, root rot) and scab; quite prone to potato blight. Fairly sensitive when laid away (sprouts moderately).

Particularly suited for rather deep clayish soils in rather low locations. Requires careful agro-technique. During 1956-57 it was acclimatized in the Karlovy Vary, Jihlava, and Ostrava krajs.

6. Kitting: Hybridized by the Hybrid Stations at Vetrovo and Kerkovo through individual selection from the English variety 'Dunbar Yeoman'. Allowed in 1946. Present hybridizer: Hybrid Station at Bystrice nad Perstejnem.

Very early table variety providing middling yield of tubers of good flaor, with rather low starch content (13.8 %). Adapted germination before planting and very early harvest.

Bunches of the leafed type. Stems rather low, fairly strong, green. Leaves with few pinnae; Leaflets quite large, broadly oval, undulate, dark green, shiny. Flowers white on rather short stems. Blooms inconspicuouwly; seed-ball infertile. Tubers of elongated oval shape, full. Skin yellow-brown to light yellow. Flesh yellowish, tallowish. Eyes shallow. Buds green with violet tint, fairly strong.

The variety is resistant to canker, non-resistant to virus diseases (spottedness, leaf curl), to potato blight and scab. It often suffers from a physiological curling up of the leaves. Quite sensitive when laid away (sprouts moderately).

Suited for middling, and rather deep clayish soils in midlling and rather low locations; requires careful agro-technique. During 1956-57 it was acclimatized in all the krajs in CSR except Brno, Kosice, and Presov.

Industrial varieties.

7. Blanik: Hybridized by the Hybris Station at Slapy u Tabora through individual selection from a cross of the varieties (Dukat and Hindenburg) and Kotnov. Allowed in 1950. Present hy hybridizer: Hybrid Station at Vyklantice, okres Pacov.

Late industrial variety providing middling to rather high yields of tubers, with high starch content, xxx (20.8 %), and with rather large starch grains.

Bunches of the stemmed type. Stems rather high, erect, broken over before ripening, green. Leaflets rather small, broadly oval with rather long point, quite ribbed, green with greyish tint. Blossoms white, rather small. Blooms inconspicuously, stanens lemon-yellow, calyx green and rather small; seed-ball not fertile. Skin light brown, Flesh white. Eyes fairly deep. Buds in the light grey-green, fairly long.

The variety is resistant to canker, quite resistant to virus diseases, potato blight, and scab, fairly resistant to stem diseases, and non-resistant to grey discoloration of the flesh during xxxxxx laying out. It is very sensitive when laid out (sprouts moderately).

Suited for rather light and middling soils in potato growing areas. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Jihlava, Brno, and Olomouc krajs.

8. 'Bojar': Hybridized by the Hybrid Station at Kerkovo through individual selection from a cross of the varieties Procentragis and Kerkovo cross '4/47'. Allowed in 1946. Present hybridizer: Hybrid Station at Ceska Bela, okres Havlickuv Brod.

Semi-late xxxxxx to late industrial variety providing rather low to middling yields of tubers with high starch content (20.8 %), and good starch quality.

Bunches of the stem type. Numerous stems, rather high, rather weak, brown green, ribbed red-brown. Leaflets small, broadly oval, flat, ribbed, brown-green; petiole colored red-brown. Flowers rather small, light purple with white tips, calyx white with long tips. Blooms quite abundantly, seed-ball sets moderately. Flesh white to yellowish. Eyes slightly deep. Light buds red-violet, rather small.

The variety is resistant to canker, fairly resistant to virus diseases (spottedness), stem diseases, scab, and potato blight. Quite sensitive to drought. Quite sensitive when laid out (sprouts rapidly).

Suited for middling and rather deep soils. Requires careful agro-technique. During 1956-57 it was acclimatized in the Jihlava kraj.

9. Kotnov: Hybridized by the Hybrid Station at Slapy u Taborathrough selection from a cross of the varieties (Aspa and Pac) with Hindenburg. Allowed in 1940. Present hybridizer: Hybrid Station at Hradek, okres Pacov.

Semi-late to late industrial variety providing middling to rather high yields of tubers with rather high starch content (19.7 %), and very good starch quality.

Bunches of the stem type. Stems rather high, erect, green, w th a pale red-brown tint in the challels of the leaves. Leaflets rather small, of elongated oval shape with rather short point, green, dull; on the petioles of the upper, lighter leaves there appears bed-brown markings. Rather large blossoms, pale purple with golden yellow stamens, rathe large calyx, ribbed red-brown. Blooms little, although more than Blanik, seed-ball does not set. Tubers rounded ovoid to round. Skin light brown. Flesh white. Eyes fairly deep. Light buds red-violet, arther large.

The variety is resistant to canker, fairly resistant to virus diseases (rugosity, spottedness), quite resistant to scab, quite prone to stem diseases and greying of the flesh; sensitive to pressures when in storage. Quite sensitive when laid out (sprouts moderately).

Suited for middling and rather deep soils, well provided with nutrients. Requires good agro-technique. During 1956-57 it was acclimatized in all krajs in CSR except for Usti n. L., and Brno.

10. Parnssia: Hybridized by the Hybrid Station at Kerkovo throughselection from Kamenec 'Parnassia'. Allowed in 1930. Present hybridizer: Hybrid Station at Ceska Bela, okres Havlickuv Brod.

Semi-late industrial variety providing middling to rather

high yields of tubers with rather high starch content (19.8 %), suitable for alcohols.

Bunches of the stemmed type, thick. Stems rather high with undulating angles, green with pale red-brown tint. Leaflets elongated oval shape, ribbed, green, shiny. Flowers red-violet on rather long stem, ordinarily with second inner corona; stamens golden yellow; calyx ribbed red-brown. Blooms abundantly, seed-ball sets moderately. Tubers rounded ovoid, full, rather less ballanced. Skin light brown. Flesh white. Eyes quite deep. Light buds red-violet, strong.

The variety is resistant to canker, fairly resistant to virus diseases (leaf curl), quite prone to stem diseases, fairly resistant to potato blight and scab. Quite sensitive when laid out (sprouts rapidly).

Suited for rather light and middling soils well provided with nutrients. During 19567 it was acclimatized in all krajs in CSR except Usti n. L., Brno, and Olomouc.

11. 'Rapid': Hybridized through selection from a cross of the varieties 'Fruehmueller' and Kerkovo cross '3 b'. Allowed in 1954. Hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

Semi-late to semi-early industrial variety providing rather high (when afflicted with blight, lower) yields of tubers with rather high starch content (19.4 %) except when affected by blight, in which case it is lower, and with rather large starch grains.

Bunches of the stemmed type, thick. Stems numerous, rather high, with undulating angulation, conspicuously ribbed with red-brown. Leaflets rather large, oval-shaped, quite ribbed and wrinkled, dark green with brown tint. Flowers white on rather long stems; Calyx ribbed red-brown, very hairy. Leaflets shiny, quite erect; petiole and central nerve colored red-brown.

Blooms quite abundantly, seed-ball does not set. Tubers rounded ovoid, full, rather less balanced. Skin deep red. Flesh white. Eyes fairly deep to deep. Light buds red-violet, fairly long.

The variety is resistant to canker, quite resistant to virus diseases (spottedness) and stem diseases, fairly resistant to scab, prone to potato blight. Fairly sensitive when laid out (sprouts quite a bit).

Suited for rather light and middling clayish soils. Requires careful agro-technique, early seeding, and in blight years spray against potato blight. During 1956-57 it was acclimatized in the Jihlava kraj.

Other varieties.

12. Ackersegen: Hybridized by the Hybrid Station at Slapy u Tabora through selection from a variety of Boehm's Ackersegen. Allowed in 1937 under the name 'Slapy Lada', and under its present name in 1950. Present hybridizer: Hybrid Station at Vyklantice, okres Pacov.

Late variety for table and agricultural economic uses providing high yields of tubers with good flavor and middling to rather high starch content (17.2 %).

Bunches of the stemmed type, thick. Numerous stalks, forking extensively with twisted branches, light green. Leaves quite pinnate, ribbed, light green, dull. Flowers white, fairly large, on a long stem growing from the leaf channel; stamens lemon yellow; calyx green. Blooms abundantly, seed-ball sets moderately. Tubers rounded ovoid, flattened. Skin yellow brown. Flesh yellow. Eyes fairly deep. Light buds dirty green, rather small.

The variety is resistant to canker, fairly resistant to virus diseases (leaf curl, spottedness), fairly resistant to potato blight, scab, and spongospora. Not very sensitive when laid out (sprouts weakly).

Suited for all soils, especially in middling and rather high locations. During 1956-57 it was acclimatized in all krajs in CSR.

13. Borka: Hybridized by the Hybrid Station at Kerkovo through selection from a cross of the varieties 'Astra' and Kerkovo cross 'E 18/16'. Allowed in 1950. Present hybridizer: Hybrid Station at Ceska Bela, okres Havlickuv Brod.

Semi-late to late, agricultural to table variety, providing rather high yields of tubers of good to less good flavor, and with middling starch content (16.3 %).

Bunches of the stemmed type, thick. Stems rather high, strong, green, with undulating angulation and numerous axillary buds. Leaves quite pinnate, leaflets broadly oval, strongly undulating, green, slightly shiny. Flowers light blue-violet, on rather long stem; stamens golden yellow; calyx rather small. Blooms abundantly; seed-ball sets moderately. Tubers round to rounded ovoid, full. Skin yellow-brown. Flesh yellow. Eyes fairly deep to deep. Light buds are light red-violet, hairy, rather weak.

The variety is resistant to canker, quite resistant to virus diseases (spottedness, leaf curl), fairly resistant to stem diseases, scab, and potato blight, prone to rustiness of the flesh. Fairly sensitive when laid out (sprouts moderately).

Suited for middling to rather deep soils, also for rather low locations. During 1956-57 it was acclimatized in the Plzen, Karlovy Vary, Liberec, Jihlava, Brno, Olomouc, Banska Bystrica, and Presov krajs.

14. Czech 'Triumf': Hybridized through individual selection from a cross of the varieties 'Prussia' and 'Besseler'. Allowed in 1939. Hybridizer: Hybris Station at Kerkovo, okres Zd'ar n. S..

Late table to agricultural variety providing high yields of tuber of tubers with very good flavor, and with middling starch content (16.5 %).

Bunches of the stemmed type, thick. Stems rather high, quite strong, green with pale red-violet tint, and undulating angles. Leaflets broadly oval, green and flat; occasionally several leaflets are fused togather. Flowers light violet with whitish tips, deformed, calyx hairy. Blooms quite abundantly; seed-ball sets occasionally. Tubers round. Skin yellow-brown, sometimes in the crown parts it has a reddish tint. Flesh yellow, semi-farinaceous. Eyes fairly deep. Light buds are light red-violet, middle-sized.

The variety is resistant to canker, non-resistant to virus diseases (rugosity, mosaic, leaf curl), quite resistant to potato blight, fairly resistant to scab and to stem diseases. Less sensitive when laid out (sprouts weakly).

Suited for rather light and middling soils. Heavy soils are less suitable for it. Requires good agro-technique. Tolerates dry quite well. During 1956-57 it was acclimatized in all the krajs in CSR except Bratislava, Nitra, and Banska Bystrica.

15. 'Kardinal': Hybridized by the Hybrid Station at Kerkovo through individual selection from a cross of the variety 'Parnassia' an the Kerkovo cross 'B/53'. Present hybridizer: Hybrid Station at Ceska Bela, okres Havlickuv Brod.

Semi-early table variety providing middling to rather high yields of tubers of good flavor, and with middling starch content (15.2 %).

Bunches of the stemmed type, thick, Stems quite numerous, collapsing when blooming is over. Leaves moderately pinnate; leaflets of elongated oval shape, light green, shiny. Flowers white, rather small; buds fall off. Blooms little; seed-ball

does not set. Tubers a long ovoid to pear-shaped. Skin yellow-brown. Flesh yellowish to yellow. Eyes shallow. Light buds green, rather small.

The variety is resistant to canker, quite resistant to virus diseases and scab, fairly resistant to potato blight, quite non-resistant to flesh rust. Less sensitive when laid out (sprouts moderately).

Suited for middling and rather deep soils, clayish, especially in rather low locations; in rather light sandy soils it provides only small tubers. During 1956-57 it was acclimatized in all the krajs in CSR.

16. 'Karmen': Hybridized through individual selection from a cross of the varieties 'Ovalgelbe' and 'Furore'. Allowed in 1946. Hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

Late table to agricultural variety providing high yields of tubers with very good flavor, and with middling starch content (16.2 %).

Bunches of the stemmed type. Stems rather high, strong, erect, with strongly undulating angulation, green with violet ribbing. Leaves quite pinnate; leaflets a long oval shape, undulate, dark green with petioles colored red-brown, quite shiny. Blossoms white on strong stem, calyx green, extensively hairy. Blooms moderately; seed-ball weakly sets. Tubers round large. Skin reddish. Flesh deep yellow, farinaceous. Eyes fairly deep. Light buds green, strong.

The variety is resistant to canker, fairly resistant to virus diseases (leaf curl), occasionally there is a physiological crumpling of the leaves, quite resistant to potato blight, quite prone to scab, stem diseases, and flesh rust. Not very sensitive when laid out (sprouts weakly).

Suited for all soils, especially for the middling and rather heavy. Requires careful agro-technique. Grows slowly and unevenly. During 1956-57 it was acclimatized in all the krajs in CSR except for Liberec, Ostrava, and Banska Bystrica.

17 'Krasava': Hybridized through individual selection from a cross of the varieties 'Visnovo Rohlicka' and Kerkovo cross 'B/53'. Allowed in 1940. Hybridizer: Hybrid Station at Kerkovov, okres Zd'ar n. S..

Semi-early table to agricultural variety providing rather high yields of tubers of good flavor, and with rather low starch content (14.2 %).

Bunches of the leafed type, thick. Stems fairly high, strong, light green, in the channel slightly striped. Leaves moderately pinnate; leaflets broadly oval, large, smooth, flat, light green, slightly shiny. Blossoms white with pale purple tint on rather long stem. Blooms quite abundantly, seed-ball does not set. Tubers round, large, skin yellow-brown, occasionally slightly reddish around the crown. Eyes fairly deep. Flesh yellow. Light buds light red-violet, quite strong.

The variety is resistant to canker, quite resistant to virus diseases (spottedness), fairly resistant to stem diseases and scab, quite prone to potato blight. Not very sensitive when laid out (sprouts moderately).

Suited for all soils and locations. During 1956-57 it was acclimatized in all the krajs in CSR.

18. 'Mirka': Hybridized through individual selection from a cross of the variety 'Triumf' with Kerkovo cross 'B/53'. Allowed in 1952. Hybridizer: Hybrid Station at Kerkovo, okres Zd'ar n. S..

Semi-ealry to semi-late variety, table to agricultural,

providing high yields of tubers with good flavor, and rather low starch content (14.7 %).

Bunches of the stemmed type, thick. Stems rather high, strong, with smooth angulation, collapsing before ripening, green, red-brown striped. Leaflets large, broadly oval, ribbed, dark green with grey tint. Flowers white on a strong stem. Calyx red-violet, hairy. Blooms moderately. Seed-ball does not set. Tubers kidney-shaped to elongated ovoid, slightly flattened, large. Skin yellow-brown, sometimes reddish around the crown. Flesh yellow to yellowish, tallowish. Eyes shallow. Light buds light red-violet, rather small.

The variety is resistant to canker, quite resistant to virus diseases (rugosity), fairly resistant to stem diseases, scab, potato blight, and spongospora. Fairly sensitive when laid out (sprouts moderately).

Suited for middling and rather deep soils in all locations. Tolerates dry quite well. During 1956-57 it was acclimatized in all krajs in CSR except Ceske Budejovice, Karlovy Vary, Liberec, and Olomouc.

20. 'Universal': Hybridized by the Hybrid Station at Slapy u Tabora through individual selection from a cross of the variety 'Ackersegen' with 'Solanum andigenum f. tocanum'. Allowed in 1950. Present hybridizer: Hybrid Station at Vyklantice, okres Pacov.

Semi-late to late agricultural to industrial variety providing middling yields of tubers with good flavor, and with high starch content (20.3 %).

Bunches of the stemmed type, thick. Stems rather high with undulating angulation, strong, green striped blue-violet, richly foliate. Leaflets broadly oval, large, slightly undulant, dark green, pendant, when ripe tinted blue-violet, ribbed.

Flowers white, large, on long stem, scented. Stamens golden-yellow. Calyx striped. Blooms richly. Seed-ball sets moderately well. Tubers round to rounded ovoid. Skin yellow-brown. Flesh yellow, farinaceous. Eyes fairly deep. Light buds blue-violet, strong.

The variety is resistant to canker, quite resistant to virus diseases (rugosity), potato blight and scab, fairly resistant to stem diseases, non-resistant to spongospora. Not very sensitive when laid out (sprouts weakly).

Suited for middling and rather deep soils in middling and rather low locations. Quite sensitive to dryness. During 1956-57 it was acclimatized in all the krajs in CSR except for Usti n. L..

20. 'Voran': Hybridized through selection from the German variety 'Voran' (Kaiserkrone X Herbstgelbe). Allowed in 1950. Hybridizer: Hybrid Station at Stranecka Zhori, okres Velke Mezirici.

Semi-late, agricultural and table variety providing middling yields of tubers with good flavor, and with rather high starch content (18.1 %).

Bunches of the stemmed type. Stems fairly high, erect, green with red-brown stripes. Leaflets broadly oval, pendant after blossoms fade, grey-green, strongly ribbed, dull. Flowers white on rather short stem; calyx stribed red-violet, hairy. Blooms moderately; seed-ball sets weakly. Tubers of elongated to roundly ovoid, less ballanced. Skin yellow-brown, often reddish around the crown. Flesh yellowish, farinaceous, Eyes moderately deep to shallow, Light buds rather dark red-violet, cone-shaped, hairy.

The variety is resistant to canker, fairly resistant to virus diseases (leaf curl, spottedness), fairly resistant to stem diseases, potato blight, and scab, non-resistant to

Suited for all soils, though especially for rather deep loams, and rather low locations. During 1956-57 it was acclimatized in the Usti n. L., Brno, Gottwaldov, and Ostrava kraja.

'Reneta': Hybridized by the Hybrid Station at Kerkovo through selection from a cross of Kerkovo cross 'B/53' with the 'Triumf' variety. Allowed in 1940. Restricted in 1954.

Semi-late table to agricultural variety providing middling to low yields of tubers with good flavor and middling starch content (16.4 %).

Bunches of the stemmed type. Stems rather high, rather weak, green, striped pale violet. Leaflets broadly oval, rather small, slightly undulate, dark green. Flowers white. Blooms quite abundantly; seed-ball stes rarely. Tubers round to rounded ovoid. Skin yellow-brown, crown eyes reddish. Flesh yellow, semi-farinaceous. Eyes moderately deep. Light buds red-violet, rather weak.

The variety is resistant to canker, quite resistant to virus diseases, fairly resistant to stem diseases, scab, and potato blight. Very sensitive when laid out (sprouts soon).

Suited for middling and rather deep soils in rather low locations. Sensitive to cutting of the tubers; very dependant on careful agro-technique.

Sowing of this variety may be recognized for the last time during the harvest year 1957.

Taborky: Hybridized by the Hybrid Station at Vetrovo from a cross of the variety 'Frieso' with 'Parnassia'. Allowed in 1946. Restricted in 1956.

Late agricultural variety providing middling yields of tubers with good flavor, and with rather high starch content (17.8 %).

Bunches of the stemmed to the leafed type. Stems numerous, rather high, green. Leaflets of elongated oval shape, flat, light green, dull. Flowers light red-violet on long stem; calyx striped violet. Blooms abunfantly; seed-ball sets abundantly. Tubers rounded ovoid, less ballanced. Skin yellow-brown. Flesh yellow, semi-farinaceous. Eyes quite deep. Light buds light red-violet, rather small.

The variety is resistant to canker, prone to virus diseases (mosaic, rugosity, spottedness) and scab, fairly resistant to stem diseases, quite resistant to potato blight. Mildly sensitive when laid out (sprouts weakly).

Sowing of this variety may be recognized for the last time during the harvest year 1957.

SEED ROOT CROPS

During the year 195 -57 there were allowed, and, in the case of sugar beets and fodder beets, also acclimatized a total of seventeen hybridized varieties of four different kinds of seed root crops.

Sugar Beets.

(Beta vulgaris ssp. esculenta var. altissima (Salisb.) Guerke)

During 1956-57 there were allowed and acclimatized seven hybridized varieties of sugar beet. They are here divided into three groups, namely: a) varieties of the normal type (N) -- with middling yield of roots and middling sugar content; b) varieties of the poduce type (V) --with high yield of roots and with rather low to middling sugar content; c) varieties of the sugar type (C)-- with middling to low yield of roots, and high sugar content.

To the second group is appended the description of one variety which was restricted in 1954.

In describing the varieties the following degrees of classification were employed:

Lehgth of the Root: 1. short (under 16 cm.), 2. fairly long (16.1 - 26 cm.), 3. long (above 26 cm.)

Height of the Root Crown: 1. low (if the crown includes about 15 %)of the entire root length), 2. fairly high (about 22%), 3. high (about 35 %).

Length of the Leaf Stalk: 1. short (under 16 cm.), 2. fairly long (16.1 - 25 cm.), 3. long (above 25 cm.).

Size of the Leaf Blade: 1. small (average length of 15 cm. and breadth of 8 cm.), 2. fairly large (10 by 20 cm.), 3. (12 cm broad by 25 cm. long).large.

Yield of Roots: 1. rather low (under 280 q/ha), 2. fairly high (281 - 350 q/ha), 3. high (above 350 q/ha).

Yield of Leafage: 1. low (under 140 q/ha), 2. fairly high (141 - 200 q/ha), 3. high (above 200 q/ha).

Sugar Content: 1. low (under 17 %), 2. middling (17.1 - 19 %), 3. high (above 19 %).

The root color of all the varieties is whitish grey, and the flesh color is white.

Varieties of the normal type (N).

1. Dobrovice N: Hybridized through selection from material obtained by reciprocal crossing of Kleinwanzlebener sugar beets, with the Vilmorin and Dippe varieties. This was cultivated as early as 1898. Allowed in 1915. Hybridizer: Beet-growers' Research Institute CSAZV at Semcice u Dobrovic, okres Mlada Boleslav.

Root fairly long, conical, broadest at top, pointed; crown of the root fairly high, broad, brown-green. Extensive leafage. Leafage erect. Leaf blade fairly large to large, undulate, green; leaf stalk fairly long.

Yield of roots middling; sugar content middling. Yield of leafage rather high. Suited for the majority of beet-growing soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Hradec Kralove, Pardubice, Brno, Olomouc, Gottwaldov, Ostrava, Bratislava, Nitra, Banska Bystrica, Kosice, Presov krajs.

2. Stupice N: Hybridized by the Hybrid Station at Stupice through selection of material obtained by reciprocal crossing of Czechoslovak types (chiefly Dobrovice N) with Kleinwnzlebener and Schreiber type N sugar beets. Allowed in 1923. Present hybridizer: Hybrid Station at Kralice na Hane, okres Prostejov.

Root fairly long, conical, fat at top, pointed, wrinkled; crown of the root rather low, fairly broad, brown-green. Leafage middling to extensive. Leaf crown erect. Leaf blade large, sl

slightly undulate, green to yellow-green; leaf stalk faibly long to long.

Yield of roots middling; sugar content middling. Yield of leafage middling. Less exacting variety suited for most beet-growing soils even in areas with less favourable growing conditions. During 1956-57 it was acclimatized in the Prague, Usti n. L., Olomouc, Bratislava, and Banska Bystrica Krajs.

3. Wohankova N: Hybridized by the former Hybrid Station at Uholicky u Prahy through selection from the Kleinwanzlebener variety. Cultivated as early as 1890. Allowed in 1922 as a sugar (C) type. In 1934 it was crossed with the Dobrovice N sugar beet. In 1950 the original 'C' identification was changed to 'N'. Present hybridizer: Hybrid Station at Kralice na Hane, okres Prostejov.

Long root, conical, fat at top, pointed, finely wrinkled; root crown rather high, rather broad, brown-green. Leafage powerful. Leaf crown erect. Leaf blade large, undulate, green; leaf stalk long.

Yield of roots middling; sugar content rather high. Yield of leafage rather low. Exacting variety, suited for rather heavy beet-growing soils sufficiently supplied with nutrients and moisture. Less suited for very early sowing. During 1956-57 it was acclimatized in the Hradec Kralove, Olomouc, Gottwaldov, and Ostrava krajs.

Varieties of the produce type (V).

4. Dobrovice A: Hybridized through selection from material obtained by crossing Dobrovice V sugar beets with foreign varieties, in particular with Kleinwanzlebener. Allowed in 1946. Hybridizer: Beet-growers' Research Institute CSAZV at Semcice u Dobrovic, okres Mlada Boleslav.

Root long, elongated cone shape, straight, strong; root crown low, rather broad, brown-green. Leafage middling to rather weak. Leaf crown spreading. Leaf blade fairly large, undulate, green; leaf stalk fairly long.

Yield of roots high; sugar content rather low. Yield of leafage rather low. Suied both for beet-growing soils, and for rather light to middling soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Karlovy Vary, Pardubice, Brno, Olomouc, Usti n. L., Liberec, Gottwaldov, Bratislava, Banska Bystrice, and Zilina krajs.

5. Dobrovice V: Hybridized through selection from Dobrovice N sugar beets. Allowed in 1933. Hybridizer: Beet-growers' Research Institute CSAZV at Semcice u Dobrovic, okres Mlada Boleslav.

Root fairly long to long, conical, narrowing gradually at the tip; root crown high, broad, brown-green. Leafage strong. Leaf crown erect. Leaf blade large, undulate, green to yellow-green; leaf stalk fairly long, rather broad.

Yield of roots high; sugar content rather low. Yield of leafage high. Suited for beet-growing, and also for rather light and rather poor soils, as well as somewhat dry soils. During 1956-57 it was acclimatized in the Prague, Plzen, Usti n. L., Hradec Kralove, Brno, Olomouc, Ostrava, Bratislava, Nitra, Banska Bystrica, Kosice, and Presov krajs.

Stupice V: Hybridized by the Hybrid Station at Stupice through selection from material obtained by crossing Stupice hybridized varieties. Allowed in 1946. Restricted in 1954.

Root fairly long, conical to elongated ovoid in shape; root crown high, fairly broad, brown-green. Leafage extensive. Leaf crown erect. Leaf blade large, slightly undulate, green; leaf stalk long.

Yield of roots middling to rather low; sugar content low. Yield of leafage rather high. Suited for the majority of normal beet soils.

~~Sowing of this variety may be recognized for the last~~ time during the harvest year 1957.

Varieties of the sugar type (C).

6. Dobrovice C: Hybridized through selection from Dobrovice N sugar beets. Allowed in 1933. Hybridizer: Beet-growers' Research Institute CSAZV at Semcice u Dobrovic, okres Mlada Boleslav.

Root long, conical, pointed; crown of the root rather high, somewhat narrow, brown-green. Leafage strong. Leaf crown erect. Leaf blade fairly large to large, undulant, green; leaf stalk long.

Yield of roots middling; sugar content higher. Yield of leafage middling. Particularly suited for clayish soils fairly well provided with nutrients and moisture. This is the variety best suited for high agro-technique. It may also be sowed rather late. During 1956-57 it was acclimatized in the Prague, Plzen, Karlovy Vary, Usti n. L.,Liberec, Hradec Kralove, Pardubice, Brno, Gottwaldov, Ostrava, Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, Presov.krajs.

7. Zapotilova C: The present Zapotilova C was hybridized through selection from material obtained by crossing the variety Dobrovice C with foreign sugar varieties (Janaczova, Klein-wanzlebener, Kuhn et al.). Allowed in 1939. The present type was put into production in 1946. Hybridizer: Beet-growers' R Research Institute CSAZV at Semcice u Dobrovice okres Mlada Boleslav.

Fairly long root, conical, pointed; crown of the root fairly high, fairly broad, brown-green. Leafage extensive. Leaf crown erect. Leaf blade large, undulant, green; leaf stalk rather short.

Yield of roots rather low; sugar content high. Yield of leafage middling to rather low. Particularly suited for rather heavy soils with sufficient nutrients and moisture. Requires

good agrotechnique. It is also suited for rather late sowing. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Pardubice, Brno, Olomouc, Gottwaldov, Ostrava, Nitra, Kosice, and Presov krajs.

Common Chicory

(Cichorium intybus L.)

During 1956-57 there were allowed two hybridized varieties.

1. Silesian: Hybridized by the Hybrid Station at Stupice through individual selection from material obtained by crossing Czechoslovak native varieties. Allowed in 1937. Present hybridizer: Hybrid Station at Dobrenice, okres Hradec Kralove.

Root white with pale yellow tint, fairly long (25.6 cm.), conical, slightly wrinkled. Flesh white. Leafage green to dark green, moderately spreading. Leaves undulant, finely notched, occasionally entire.

The root grows entirely beneath the ground. Content of dry matter rather high (26.2 %). Quite resistant to running /vybíhaní/

2. 'Spicak'/tooth/: Hybridized by the Hybrid Station at Stupice through individual selection from material obtained by crossing Czechoslovak varieties with Magdeburg 'Spicak'. Allowed in 1934. Present hybridizer: Hybrid Station at Kralice na Hane, okres Prostejov.

Root white with inconspicuously yeelow tint, long (27.4 cm.), of elongated conical to spindle-shape, wrinkled. Flesh white. leafage green, fairly spreading. Leaves undulate, mostly finely notched.

The root grows entirely beneath the ground. Content of dry matter high (27.8 %). Quite resistant to running

Fodder Beet.

(Beta vulgaris ssp. esculenta (Salisb.) Guerke)

During 1956-57 there were allowed and acclimatized five hybridized varieties of fodder beet. In our descriptions they are divided into two groups: a) bulk varieties -- with high yield of roots and rather low content of dry matter and sugar, b) content varieties (half-sugar beets) -- with rather lower yields of roots and high content of dry matter and sugar.

Appended to the half-sugar beets is the description of one restricted variety.

In describing the varieties the following degrees of classification were employed:

Shape of the Root: 1. cylindrical, 2. round, 3. conical 4. ovoid. In the descriptions of the varieties only the predominating shape is mentioned; roots of other shapes may, of course, also appear.

Length of the Leaf Stalk: 1. (with bulk varieties) a. short (under 12 cm), b. fairly long (12.1 - 22 cm.), c. long (above 22 cm.).

2. (with content varieties) a. short (under 16 cm.), b. fairly long (16.1 - 25 cm.), c. long (above 25 cm.).

Size of the Leaf Blade: 1. (with bulk varieties) a. small (average breadth of 8 cm. and average length of 10 cm.), b. fairly large (10 by 15 cm.), c. large (11 by 18 cm.).

2. (with content varieties) a. small (9 by 12 cm.), b. fairly large (10 by 17 cm.), c. large (12 by 23 cm.).

Yield of roots: 1. low (under 350 q/ha), 2. fairly high (350 - 500 q/ha), 3. high (above 500 q/ha).

Yield of leafage: 1. low (under 60 q/ha), 2. fairly high (60 - 150 q/ha), 3. high (above 150 q/ha).

Content of Dry Matter: 1. low (under 13.5 %), 2. fairly high (13.6 - 15 %), 3. high (above 15 %).

Bulk varieties.

1. Buciany'Yellow Cylinder/Zlty Valec/: Hybridized by the former Hybrid Station at Budmerice through selection from Eckendorf'Yellow'. Allowed in 1943. Present hybridizer: Hybbid Station at Horni Chlebany, okres Topolcany.

Root cylindrical, slightly contracted in the middle, light sulpher yellow to the same with orange tint; crown of the root small, greenish grey; flesh white. Leafage weak. Leaf crown semi-erect. Leaf blade small, straight to slightly undulant, yellow-green, nerves light green; leaf stalk rather short to fairly long.

Yield of roots high; content of dry matter rather low. Yield of leafage rather low. Easy to pull; 1/2 - 1/3 of the root grows above the surface. Keeps well when stored. Suited for the majority of soils. During 1956-57 it was acclimatized in the Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov kraje.

2. Kostelec 'Barres': Hybridized by the Hybrid Station at Stupice through selection from material obtained by crossing various types of the 'Barres' variety (mostly Tystofte, Stryno, Buszynsky, and Mette). Allowed in 1937. Present hybridizer: Hybrid Station at Kostelec u Krizku, okres Prague-East.

Root ovoid to long ovoid in shape, yellowish to deep orange; crown of the root brown-green with orange tint; flesh white to light orange-yellow. Leafage middling to greater. Leaf crown semi-erect. Leaf blade fairly large, green to yellow green; leaves light green to slightly yellowish orange; leaf stalk light green to yellowish.

Yield of roots middling to rather high; content of dry matter middling. Yield of leafage middling. Easy to pull; 1/2 - 1/3 of the root grows above the surface. Preserves well when

stored. Suited for the majority of soils. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Hradec Kralove, Pardubice, Jihlava, Brno, Olomouc, Gottwaldov, Ostrava, Zilina, Presov.krajs.

3. Yellow 'Unikum': Hybridized by the Hybrid Station at Stupice through selection from a yellow Eckendorf type. Allowed in 1928. Present hybridizer: Hybrid Station at Nêrad , okres Bohumin.

Root cylindrical, slightly contracted in the middle, light yellow to light orange; crown of the root brown-green with yellow tint; flesh white. Leafage weak. Leaf crown semi-erect to spreading. Leaf blade fairly large, straight to slightly undulant, yellow green, nerves light green; leaf stalk fairly long, green or yellow to yellowish orange, close to the heart purplish.

Yield of roots high; content of dry matter rather low, Yield of leafage rather low. Very easy to pull; 1/2 - 2/3 of the root grows above the surface. Preserves well when stored Suited for most soils. During 1956-57 it wass acclimatized in the Prague, Ceske Budejovice, Plzen, Karlovy Vary, Usti n. L., Libered, Hradec Kralove, Pardubice, Jihlava, Brno, Olomouc, Gottwaldov, and Ostrava krajs.

Content varieties:

4. Red Half-sugar: Hybridized by the Beet-growers' Research Institute at Semcice through selection from material obtained by crossing sugar-beets with Eckendorf red, Mamutka red, and Mette Rotte Leisen fodder beets. Allowed in 1948. Present n hybridizer: Hybrid Station at Kostelec u Krizku, okres Prague-East.

Rounded conical root, carmine red; crown of the root brown-green with red tint; flesh white to reddish. Leafage m middling. Leaf crown erect. Leaf blade rather small, dark green with carmine tint, extensively undulant, nerves carmine red or green; leaf stalk fairly long, carmine red or green.

Yield of roots rather low; content of dry matter high. Yield of leafage high. Difficult to pull, 1/6 - 1/5 of the root grows above the surface. Suited for beet-growing and rotation areas and for rather deep soils. During 1956-57 it was acclimatized in the Prague, Ceske Bubejovice, Plzen, Usti n. L., Liberec, Hradec Kralove, Pardubice, Brno, Olomouc, and Banska Bystrica krajs.

5.Yellow Half-sugar: Hybridized by the Hybrid Station at Semcice through selection from material obtained by crossing sugar-beets with Danish Barres, Crieven Yellow, and Eckendorf Yellow fodder beets. Allowed in 1948. Present hybridizer: Hybrid Station at Kostelec u Krizku, okres Prague-East.

Long ovoid rounded root, pointed, yellowish orange; root crown large, brown-green; flesh white to slightly yellowish. Leafage middling to rather ~~large~~ great. Leaf crown semi-erect to erect. Leaf blade rather small, undulant, yellow-green; leaf stalk long, yellow-green.

Yield of root rather low, content of dry matter rather high. Yield of leafage rather high. Difficult to pull; 1/5 - 1/4 of the root grows above the surface. During 1956-57 it was acclimatized in the Prague, Karlovy Vary, Gottwaldov, Bratislava, Nitra and Kosice krajs.

Chot'ovka: Hybridized by the Hybrid Station at Stupice through selection from a native Chot'ovka. Allowed in 1935. Restricted:in 1954.

- Long round root, grey-white; crown of the root brown-green to green; flesh white. Leafage middling. Leaf crown erect. Leaf blade fairly large to large, slightly undulant, green; leaf stalk long, light green.

- Yield of roots low; content of dry matter high. Yield of leafage high. Difficult to pull; 1/5 - 1/3 of the root grows above the surface.

Seeding of this variety may be recognized for the last time in the harvest year 1957.

Fodder Carrot

(Daucus carota L.)

During 1956-57 there were allowed three hybridized varieties of fodder carrot. Appended to the descriptions of these is the decription of one restricted variety.

In describing the varieties the following degrees of classification were employed:

Length of the Root: 1. short (under 20 cm.), 2. fairly long (20.1 - 24 cm.), 3. long (above 24 cm.).

Breadth of the Head of the Root: 1. narrow (under 4 cm.), 2. fairly broad ((4.1 - 6 cm.), 3. broad (above 6 cm.).

Content of dry Matter: 1. low (under 12 %), 2. middling (12.1 - 16 %), 3. high (above 16 %).

1. Seed Orange: Hybridized through individual selection from Loberisch carrots by prof. Holy at Svamberk. Allowed in 1949. Hybridizer: Hybrid Station at Svamberk, okres Trebon.

Root orange yellow, fairly long, conical to cylindrical, mostly with short point, smooth; head of the root fairly broad to broad. Flesh orange yellow. Herbage green; bunch fairly broad, erect to semi-erect.

The root grows entirely beneath the surface. Content of dry matter middling. Very resistant to running

2. Tabor Yellow: Hybridized by the former Agricultural Research Station at Tabor through individual selection from a antive variety fromtthe neighbourhood of Kralove Hradec. Allowed in 1950. Present hybridizer:Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Yellowish root, fairly long, cylindrically conical in shape, semi-pointed, more rarely with blunt point, slightly wrinkled. Flesh deep yellow. Herbage green to dark green; bunch semi-erect, leaves pendant.

The root grows entirely beneath the surface. The content of dry matter is middling. Very resistant to running

3. Visnovo Yellow Red: Hybridized by the former Hybrid Station at Visnovo u Mor. Krumlova through individual selection from material obtained from market seed of North American origin. Allowed in 1940. Present hybridizer: Hybrid Station at Kralice na Hane, okres Prostejov.

Root yellow-orange red to red, fairly long. cylindrically conical. mostly pointed, slightly wrinkled; head of the root fairly broad. Flesh orange yellow. Herbage green; bunch mostly broad, leaves mostly pendant.

The root ordinarily grows entirely beneath the surface. The content of dry matter is middling. Quite resistant to running

Podripska White: Hybridized by J. Bilek at Racinevse through individual selection from a Vosges carrot. Allowed in 1936. Restricted in 1954.

Root white, fairly long to rather short, conical, relatively smooth; head of the root broad. Herbage green to dark green; bunch spreading, leaves pendant.

The root grows entirely beneath the surface. Content of dry matter middling. Very resistant to running

Seeding of this variety may be recognized for the last time during the harvest tear 1957.

CONDIMENTAL PLANTS

During 1956-57 there were allowed in all seven varieties of three kinds of condimental plants. Two of these are hybridized varieties, whereas the others are native varieties obtained , and until 1952 maintained by the chief variety testing centers for medicinal, condimental, and aromatic plants UKZUZ (formerly Agricultural Research Institutes) at Prague and Brno.

Common Fennel

(Foeniculum vulgare Mill.)

1. Moravian native: Allowed in 1946. Present hybridizer: Institute for the ~~Field~~ Grass-Field System of CSAZV at Pohorelice, okres Zidlochovice.

Fairly high plant (up to 165 cm.). Stalk moderately branched, green with grey tint. Leaves fairly large, finely disected into spotted, fairly broad sections, light green. Leaf stalk fairly long with sheath with white edges. Umbels fairly large (up to 10 cm.), broadly oval to circular; flowerlets dirty white, yellowish. Fruits fairly large to quite large, olive green with brown tint, ovoid, ribbed length-wise on the surface.

2. Common native: Allowed in 1946. Present hybridizer: Institute for the Grass-Field System of CSAZV at Pohorelice, okres Zidlochovice.

Fairly high plant (up to 160 cm.). Stalk moderately branched, green with brown tint. Leaves small to fairly large, sections closely spotted, light green. Leaf stalk fairly long. Umbels fairly large (up to 10 cm.), circular; flowerlets dirty white. Fruits small to fairly large, olive green with brown tint, ovoid, ribbed on the surface.

Two-year to three-year plant. Both varieties are suited for deep, well cultivated soils with sufficient moisture and lime in rather warm (corm-growing) areas.

Carraway

(Carum carvi L.)

1. Czech: Hybridized by V. Hokes at Brezinec, okres Melnik, through selection from a native variety cultivated in the Caslava district. Allowed as a hybridized variety in 1952.

Fairly high plant (80 - 90 cm.), stalk moderately branched, green, partially with a brown-violet tint. Leaves long, dark green, leaflets and intermediate leaflets fairly crowded, and coarse. Leaf stalk fairly long. Umbels fairly large with a large number of umbelules, flowerlets white with reddish tint. Fruits oblong, slightly bent, five-ribbed, grey-brown.

2. Moravian native: Allowed in 1941. Present hybridizer: Hybrid Station at Stara Ves, okres Prerov.

High variety (85 - 90 cm.). Stalk richly branched, dark green. Leaf long to fairly long, dark green, leaves and leaflets fairly crowded, semi-coarse. Leaf stalk long. Umbels fairly large to large with middling to large number of umbelules; flowerlets white with reddish tint. Fruits rather short, oblong, noticeably bent, five-ribbed, grey-brown.

Two-year plant. Both varieties are suited for various soils with sufficient humus and moisture in both valley and mountain locations.

Seed Coriander

(Coriandrum sativum L.)

1. Hrubcice: Hybridized by J. Prcechtel at Hrubcice through individual selection from a native Moravian variety. Allowed in 1946. Present hybridizer: Hybrid Station at Kralice na Hane, okres Prostejov.

High variety (100 cm.). Stalk moderately branched, light green with purple veining. Lower leaves small to medium, round, dark green; leaflets of the lower leaves oval; upper leaves spotted. Umbels fairly large (4 - 5.5 cm.), round; flowerlets dirty white with reddish tint. Fruits small to fairly large, ribs undulant, light yellow-brown.

This is a one-year plant. Suited for not excessively heavy soils in protected locations.

HOPS, TOBACCO, AND TEASEL

Twining Hops

(Humulus Lupulus L.)

During 1956-57 there were allowed in all seven varieties of hops; of these, three were improved varieties, and four were native.

All the improved varieties were hybridized through selection from native Zatecky hops by the late Dr. Ing. Karel Osvald, director of the Hops Research Institute at Zatec.

Statistical information introduced in the descriptions was acquired through many years of observation, and checking of the characteristics and features of the varieties by the Hops Research Institute CSAZV at Zatec, and through two-year tests by the chief hops testing center UKZUZ at Zatec. The publication of Dr. Ing. K. Osvald was referred to for description of the hybridized varieties.

In the descriptions the term 'growing time' is understood to refer the period between the first cutting, and the harvest maturity of the different varieties.

1. Osvald's clon no.31: Allowed in 1958. Hybridizer: Hops Research Institute CSAZV at Zatec.

Early to semi-early variety, red type with reddish stem and fairly powerful growth.

Strobiles ovoid, 2.5 - 3 cm long, green (particularly in rather heavier soils), gentle hops odour. Arrangement of the strobiles and joints of the axes regular. The fruit-bearing sprouts are placed 140 - 180 cm high, and are 50 - 90 cm long and pendant. Length of the internodes is 20 - 30 cm. The content of soft resin is 11.28 %, humulin 4.66 %, lupulin 6.62 %.

Growing time 120 - 130 days. It is well suited for rather heavy soils and somewhat damp locations. Average yield of dried hops 10 - 12 q/ha.

2. Osvald's clon no. 72: Allowed in 1952. Hybridizer: Hops Research Institute CSAZV at Zatec.

Semi-early red type with slightly reddish vine stem and rather powerful growth.

Strobiles long ovoid to cylindrically shaped, 2.5 - 3.5 cm long, golden-green to green, gentle hops odour. Arrangement ofthe strobiles and joints of the axes regular. The fruit-bearing sprouts are placed 130 - 170 cm high, and are 50 - 80 cm. long, pendant to semi-pendant. Length ofthe internodes is 20 - 35 cm. Content of soft resins is 11.87 %, humulin 5.01 %, lupulin 6.86 %.

Growing time 120 - 130 days. Plastic; it is the least demanding of the improved varieties as far as soil and location are concerned, although in soils which are too moist and in closed in locations at is susceptible to perenospora /sic/. Average yield of dry hops 11 - 13 q/ha.

3. Osvald's clon no.114: Allowed in 1952. Hybridizer: Hops Research Institute CSAZV at Zatec.

Early red type with reddish vine stem and moderately powerful growth.

Strobiles ovoid, 2.5 - 3.5 cm long, green to pale golden green, very fine hops odour. Arrangement of the strobiles and joints of the axes regular. The fruit-bearing sprouts are placed 120 - 150 cm high, and are 50 - 70 cm long, semi-pendant. Length of the internodes 25 - 35 cm. Content of sofy resins is 11.97 %, humulin 5.12 %, lupulin 6.85 %.

Groing time 110 - 125 days. This is well suited for rather dry soils and open locations --- a so called field hops-field.

Average yield of dry hops 10 - 12 q/ha.

4. Roudnice native: Allowed in 1941.

Semi-early red type with moderately powerful growth.

Strobiles ovoid, 2.5 - 3 cm long, green to pale gold-green, hops odour. Arrangement of the strobiles and joints of the axes regular. The fruit-bearing sprouts are placed 130 - 170 cm high, and are 40 - 80 cm long, semi-pendant to pendant. Content of soft resins is 11.7 %, humulin 3.5 %, lupulin 8.2 %.

Growing time 120 - 130 days. Average yield of dry hops 9 q/ha.

5. Trsic native: Allowed in 1941.

Semi-early red type with moderately powerful growth.

Strobiles ovoid, 2.5 - 3 cm long, green to pale gold-green, hops odour. Arrangement of the strobiles and joints of the axes quite regular. The fruit-bearing sprouts are placed 140 - 180 cm high, and are 60 - 100 cm long, pendant. Content of soft resins 9.59 %, humulin 44.04 %, lupulin 5.55 %.

Growing time 120 - 130 days. Average yield of dry hops 8 q/ha.

6. Usti native: Allowed in 1952.

Semi-early to semi-late red type with moderately powerful growth.

Strobiles ovoid, 2.5 - 3 cm long, green to pale gold-green, hops to root odour. Arrangement of the strobiles and the joints of the axes less regular. The fruit-bearing sprouts are placed 140 - 170 cm high, and are 50 - 90 cm long, pendant to semi-pendant. Content of soft resins 13.8 %, humulin 5.3 %, lupulin 8.5 %.

Growing time 125 - 135 days. Average yield of dry hops 8 q/ha.

7. Zatec native: Allowed in 1941.

Semi-early red type with moderately powerful growth.

Strobiles ovoid, 2 - 2.5 cm long, green to gold-green, gentle hops odour. Arrangement of the strobiles and the joints of the axes regular. The fruit-bearing sprouts are placed 130 - 160 cm high; the sprouts are 60 - 100 cm long, and pendant. Content of soft resins 12.42 %, humulin 4.82 %, lupulin 7.25 %.

Growing time 120 - 130 days. Average yield of dry hops 7 q/ha.

Virginia Tobacco

(Nicotiana Tabacum L.)

During 1956-57 there were allowed in all eight varieties of tobacco, all belonging to the species Nicotiana tabacum. Seven of these are hybridized varieties, whereas one is unimproved. One of the improved varieties is an an inter-variety hybrid.

1. Burley: Hybridized from a variety of WhiteBurley acclimatized in Czechoslovakia. Allowed in 1952. Hybridizer: Tobacco Industry Research Institute at Velká Bab, okres Sered.

The plant is 120 - 135 cm high. The stem begins to grow 34 - 39 days after transplanting. 19 to 22 useable leaves are formed on each plant.. The leaves are narrow, lanceolar, initially yellowish green, later greenish yellow. Flowers purplish.

Growing time up to the harvest of the ground leaves 113 days; up to the harvest of the upper leaves 147 days. Suited for artificial and natural curing. Dried leaves yellow to light brown, Cigarette tobacco.

2. Debrecen native: A native variety long cultivated in Slovakia. Allowed in 1950. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 152 - 170 cm high. The stem begins to grow 23 - 24 days after transplanting. 19 - 21 useable leaves are formed on each plant . The leaves are large, lanceolar with extended tip, slightly undulating, rather coarse nerves, green. Reddish flowers.

Growing time up to the harvest of the ground leaves 115 days; up to the harvest of the upper leaves 153 days. Suited only for natural curing. Dried leaves light to dark brown. Cigar tobacco.

3. Havana II C: Hybridized from a Havana tobacco which has been grown in Czechoslovakia for a long time. Allowed as a hybridized variety in 1952. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 125 - 165 cm high. The stem begins to grow 23 - 26 days after transplanting. 28 to 32 useable leaves are formed on each plant.Oval Leaves with short point, moderately undulant, dark green. Flowers reddish.

Growing time up to the harvest 115 days; for the ground leaves, 155 days for the upper leaves. Suited for natural drying. Dried leaves are light to dark brown. Cigar tobacco.

4. Sabolc: Hybridized from a Magyar variety acclimatized in Slovakia. Allowed as a hybridized variety in 1952. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 150 - 170 cm high. The stem begins to grow 33 - 35 days after transplanting. 20 - 21 useable leaves are formed on each plant. The leaves are oval shaped with short point and broad leaf stalk, light green to green. Reddish flowers.

7. Zatec native: Allowed in 1941.

Semi-early red type with moderately powerful growth.

Strobiles ovoid, 2 - 2.5 cm long, green to gold-green, gentle hops odour. Arrangement of the strobiles and the joints of the axes regular. The fruit-bearing sprouts are placed 130 - 160 cm high; the sprouts are 60 - 100 cm long, and pendant. Content of soft resins 12.42 %, humulin 4.82 %, lupulin 7.25 %.

Growing time 120 - 130 days. Average yield of dry hops 7 q/ha.

Virginia Tobacco

(Nicotiana Tabacum L.)

During 1956-57 there were allowed in all eight varieties of tobacco, all belonging to the species Nicotiana tabacum. Seven of these are hybridized varieties, whereas one is unimproved. One of the improved varieties is an an inter-variety hybrid.

1. Burley: Hybridized from a variety of WhiteBurley acclimatized in Czechoslovakia. Allowed in 1952. Hybridizer: Tobacco Industry Research Institute at Velka Baba, okres Sered.

The plant is 120 - 135 cm high. The stem begins to grow 34 - 39 days after transplanting. 19 to 22 useable leaves are formed on each plant.. The leaves are narrow, lanceolar, initially yellowish green, later greenish yellow. Flowers purplish.

Growing time up to the harvest of the ground leaves 113 days; up to the harvest of the upper leaves 147 days. Suited for artificial and natural curing. Dried leaves yellow to light brown, Cigarette tobacco.

2. Debrecen native: A native variety long cultivated in Slovakia. Allowed in 1950. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 152 - 170 cm high. The stem begins to grow 23 - 24 days after transplanting. 19 - 21 useable leaves are formed on each plant . The leaves are large, lanceolar with extended tip, slightly undulating, rather coarse nerves, green. Reddish flowers.

Growing time up to the harvest of the ground leaves 115 days; up to the harvest of the upper leaves 153 days. Suited only for natural curing. Dried leaves light to dark brown. Cigar tobacco.

3. Havana LI C: Hybridized from a Havana tobacco which has been grown in Czehhoslovakia for a long time. Allowed as a hybridized variety in 1952. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 125 - 165 cm high. The stem begins to grow 23 - 26 days after transplanting. 28 to 32 useable leaves are formed on each plant.Oval Leaves with short point, moderately undulant, dark green. Flowers reddish.

Growing time up to the harvest 115 days; for the ground leaves, 155 days for the upper leaves. Suited for natural drying. Dried leaves are light to dark brown. Cigar tobacco.

4. Sabolc: Hybridized from a Magyar variety acclimatized in Slovakia. Allowed as a hybridized variety in 1952. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 150 - 170 cm high. The stem begins to grow 33 - 35 days after transplanting. 20 - 21 useable leaves are formed on each plant. The leaves are oval shaped with short point and broad leaf stalk, light green to green. Reddish flowers.

Growing time up to the harvest of the ground leaves 115 days; up to the harvest of the upper leaves 145 days. Suited only for natural drying. Dried leaves light to dark brown. Cigarette and pipe tobacco.

5. Golden Virginia: Hybridized from a Virginia acclimatized in Czechoslovakia. Allowed as a hybridized variety in 1952. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 148 - 172 cm high. The stem begins to grow 31 to 32 days after transplanting. 19 - 22 useable leaves are formed on the plant. The leaves are lanceolar, wrinkled, initially yellowish gree,. later greenish yellow. Purplish flowers.

Growing time up to the harvest if the ground leaves 113 days; up to the harvest of the upper leaves 147 days. Suited for natural and artificial drying. Dried leaves are yellowish to light brown. Cigarette tobacco.

6. Garden: Hybridized from an old Slovak native variety of the same name. Allowed as a hybridized variety in 1952. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 150 - 180 cm high. The stem begins to grow 21 - 22 days after transplanting. 19 to 21 useable leaves are formed on the plant. The leaves are cordate in shape with a small tip, wrinkled, bright green, fine, with sparse veining. It is easily dammaged b wind or handling. The flowers are deep red.

Growing time up to the harvest of the ground leaves 115 days; up to the harvest of the upper leaves 150 days. Suited only for natural drying. The dried leaves are light brown to brown. Cigarette tobacco.

7. Yellow VT: Hybridized through individual selection from a cross of the variety Golden Virginia with Tisky. Allowed in 1956. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant averages 176 cm in height. 20 - 22 useable leaves are formed on the plant. The leaves are large, broadly lanceolar, slightly wrinkled, greenish yellow. Flowers deep red.

Growing time up to the harvest of the ground leaves 133 days; up to the harvest of the upper leaves 172 days. Suited chiefly for natural drying. Dried leaves yellow brown to light brown. Cigarette tobacco.

8. Heterosis VK: Hybrid: Virginia Golden X Kavalla. Allowed in 1956. Hybridizer: Tobacco Industry Research Institute at Velky Bab, okres Sered.

The plant is 185 cm high on the average. there are 22 - 24 useable leaves formed on the plant. The leaves are fairly large to large, broadly lanceolar, with small and short tip, light green. Flowers reddish.

Growing time up to the harvest of the ground leaves 122 days; up to the harvest of the upper leaves 172 days. Particularly suited for artificial drying. Dried leaves yellow brown to light brown. Cigarette tobacco.

Teasel

(Dipsacus sativus (L) Scholl.)

1. Czech: Hybridized by the former Institute for cultivation and improvement of plants VUZ in Prague. Allowed in 1952. Present hybridizer: Chief Variety Testing Center UKZUZ in Prague.

The plant is fairly high, moderately to densly branched. The leaves are ovally lanceolar, serrate notched, more rarely

with prickles. The teasels are mostly cylindrical. Percentage of small teasels (3 - 5 cm) about 56 %; of middling sized (5 - 7 cm) about 32 %; of large (above 7 cm) 12 %. Density of the husks middling; the husks are semi-stiff to stiff, their tips are quite bent. Particularly suited for middling and heavy soils in rather dry locations.

VEGETABLES

During 1956-57 there were allowed in all one hundred thirty four varieties of thirty one different kinds of vegetables; of these eleven are native varieties, while the others are improved varieties.

Kohl-rabi

(Brassica oleracea var gongylodes L.)

During 1956-57 there were allowed in all seven hybridized varieties of kohl-rabi, including a) four early varieties, and b) three semi-early to late varieties.

Period of maturity of the varieties: 1. early (growing time up to 85 days), 2. semi-early (86 - 100 days), 3. semi-late (101 - 120 days), 4. late (above 120 days).

Early varieties

1. Dvorsky Prague Early White: Hybridized by Karel Dvorsky at Dolinek from an old native Prague variety. Allowed in 1921. Present hybridizer: Hybrid Station at Veltrusi, okres Kralupy n. Vlt..

Leaves fairly large, round in shape, finely notched, bright green with silver pruinosity; leaf stalk short, thin, Total leafage rather weak. Tubers fairly large, flattly round: skin thin, smooth, light green with silver pruinosity. Stump short, not broadening at junction with tuber. Flesh fine, slightly sweetish flavour, without woody vascular bunches.

Early variety, suited for field cultivation. Heating may be used to rush it.

2. Libochovice Early White: Hybridized through selection from a cross of Bohacek White Kohl-rabi with the French Kohl-rabi 'Chassis feailles fimes'/feuilles fines ?/. Allowed in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Leaves fairly large, triangular in shape, slightly distorted, irregularly edged, deep green, pruinose; rather short leaf stalk adhering very closely to the tuber. Rather robust foliage. Tubers flatly round, light green, pruinose. Flesh delicate, with agreably sweet flavour, light green.

Early variety, suited for early field cultivation. It may be rushed.

3. Prague Early White for Forcing: Hybridized by the Vegetable Growers' Research Institute at Olomouc-Slavonina through selection from a native Prague Early White Kohl-rabi. Allowed in 1935. Present hybridizer: Hybrid Station at Melnik-Mlazice.

Leaves fairly large, egg-shaped or teiangular with rounded corners, edegs roughly notched, near the base lobe-bearing, bright green, slightly pruinose. Leafage moderate, leaves erect. Tubers flatly round, whitish green, slightly pruinose, with thin skin. Stump short, enters the tuber abruptly, without broadening. Flesh tender, juicy, pale, under thr skin deeper green, sweetish, flavour not striking.

Early variety, suited for forcing in semi-warmth/polo-teplo/, or in the cold.

4. Matousek's Prague Early Blue: HYbridized by J. Matousek at Mcely from a native Prague Blue Kohl-rabi. Allowed in 1944. Present hybridizer: Hybrid Station at Uhretice, okres Chudrim.

Leaves oblong, lobe-bearing, notched, grey-green with violet tint; leaf stalk rather short, rather weak. Foliage quite rich. Tubers flatly round, moderately pruinose with weak skin. Flesh delicate, juicy, without woody vascular bunches. The stump passes gradually into the tuber.

Early variety, suited for early field cultivation.

Semi-early to late varieties.

5. Nezmar: Hybridized by J. Fráidl at Vysoky Myt' through selection from Erfurt 'Dreiquellen'/tristudnicni/ Kohl-rabi. Allowed in 1952. Hybridizer: Communal Enterprise at Vysoky Myt'.

Large leaves, rather long, erect, tongue-like, irregularly, though deeply notched, dark green, silver pruinosity; leaf stalk rather coarse. Leafage rather robust. Tubers flatly round, at the top slightly hollowed out, whitish green. Flesh firm, whitish, greenish under the skin, slightly sweetish, without woody vascular bunches.

Semi-early variety, suited even for rather high locations.

6. Kozman's Blue: Hybridized by J. Kozman at Prague-Michl through selection from a native Prague Blue Kohl-rabi. Allowed in 1946. Hybridizer: Zelinarstvi/Vegetable Growers' Center/, an enterprise of the Capital City, Prague.

Leaves erect inside, pendant outside, oblong, lobe-bearing and distorted, grey green with bluish tint and rather lighter nervature. The leaf stalks are long, dark violet. Foliage rich. Tubers large, flatly round, blue to blue-violet. Flesh tender, without woody vascular bunches. Stump low, strong, passes directly into the tuber.

Semi-late variety, suited for autumn field cultivation.

7. Detenice Blue: Hybridized from a native bacon/spekovy/ kohl-rabi raised at Detenice. Allowed in 1954. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Leaves large, deeply and irregularly lobe-bearing; leaf blade distorted, green with violet-colored nerves, pruinose. Leaf stalks strong, mostly erect, violet colored. Tubers large flatly round, when fully developed round, blue-violet, pruinose. Fleah delicate, juicy, without woody vascular bunches, whitish, under the skin slightly greenish. Stump strong.

Late variety, suited for autumn field cultivation. Stores well.

Celery.

(Apium graveolens L.)

Three hybridized varieties are allowed.

1. 'Nerez'/stainless/: Hybridized by J. Slavik at Hrochovy Tynec from an old native variety of Prague celery, cultivated at Branik. Allowed in 1939. Present hybridizer: Hybrid Station at Uhretice, okres Chrudim.

Leaves broadly spread, average length 28 cm, breadth 13 cm, length of the leaf stalk about 13 cm, leaves dish-shaped, bright green, slightly shiny to dull. Tuber round, in the upper part elongatedly conical, surface slightly rough, cicatrized, light brown. Flesh creamy white, under the skin of the root part slightly grey-yellow. Most of the tubers are actually hollow. Growing time 200 - 230 days.

2. Olomouc: Hybridized by the improvement section of the former VUZ at Brno through selection from material obtained from market seed of unknown origin. Allowed in 1952. Present hybridizer: Vegetable Growers' Research Institute CSAZV at Olomouc-Slavonina.

Leaves long (40 cm), broad (19 cm), light green, leaf stalk rather short (20 cm) purplish. Tuber oval, under the leaf rosette bluntly conical; surface coarse, occasionally furrowed, light yellow. Some of the tubers are colored violet at the base.

Flesh creamy white, firm beneath the surface, towards the middle porous and spongelike. Particularly suited for rather dry locations. Growing time 200 - 230 days.

3. Prague 'Giant'/obrovsky/: Hybridized by the Hybrid Station at Lyse n. L. from an old native variety of Prague celery cultivated in the neighbourhood of Branik. Allowed in 1946. Hybridizer: Hybrid Station at Sibirina, okres Ricany.

Leaf rosette high, semi-erect. Leaves about 28 cm long, 14 cm broad, deep green, length of the leaf stalk 13 cm. Leaf rosette spreads out in the Autumn. Tuber round to elongatedly conical, rather broader at the base, surface slightly cicatrized, okre yellow. Flesh snow white, without hollows. Growing time about 230 days.

Onion

(Allium cepa L.)

During 1956-57 there were allowed and acclimatized four hybridized varieties, to whose descriptions there is here appended the description of another variety which was restricted in 1956.

1. Kastice: Hybridized through selection from a cross of a Zitava onion with the Maco variety. Allowed in 1952. Hybridizer: Hybrid Station at Kastice, okres Podborany.

Leaves about 40 cm. high, bright green. Bulb fairly large, round, though narrowing in a conical way at both ends, cross section is round. Neck weak, quite *wellwbound*. Skin bronze yellow with darker veining. Flesh fine, firm, white.

Growing time 160 days. Tolerates dry well. Stores well. During 1956-57 it was acclimatized in the Karlovy Vary and Usti n. L. krajs.

2. 'Moravanka': Hybridized by the improvement section of the former VUZ at Brno through selection from a native variety from the Bzenecko. Allowed in 1939. Present hybridizer: Hybrid Station at Valtice, okres Mikulov.

Leaves about 40 cm high, strong, erect, rather light green. Bulb fairly large, flat to flatly round. Neck short, tightly bound. Skin rather dark brownish rose with purple veining, adhering firmly. Flesh firm, white, near the neck often purplish.

Growing time 163 days. Tolerates dry and rather high temperatures well. Very well suited for storing. During 1956-57 it was acclimatized in the Pardubice, Jihlava, Brno, Olomouc, Gottwaldov, Bratislava, Nitra, Banska Bystrica, Zilina, Kosice, and Presov krajs.

3. 'Giant Yellow': Hybridized by the former ZUZR at Prerov through selection from the Zitava onion. Allowed in 1939. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Leaves about 45 cm high, strong, erect, dark green. Bulb large, flat to flatly round, arched in the upper half, flat in the lower. Low neck, quite tight. Skin dark straw yellow with inconspicuous violet veining. Flesh firm, white, pale yellowish under the skin.

Growing time 166 days. Tolerates even rather heavy soils well. Suitable for large-scale production for industrial uses in all cultivation areas. Does not store particularly well. During 1956-57 it was acclimatized in all the krajs of CSR.

4. Vsetatske: Hybridized from an old native variety cultivated in the Vsetatsko. Allowed in 1946. Hybridizer: Hybrid Station at Lysa-Litole, okres Nimburk.

Leaves about 50 cm high, bright green. Bulb elongatedly round, conically narrowing towards the top and base, base flat.

Skin okre yellow(in the lighter soils bronze yellow) with conspicuous reddish veining, closely adhering. Thin neck, very well bound. Flesh quite firm, fine, white.

This variety is most often raised as a two-year plant, and as such has a growing time of 160 days; as a one-year plant it grows in 125 days. It is particularly suited for rather light soils and regions with sufficient precipitation. It is very well suited for cultivation of onion cloves /cibulky-sazecky/ for early harvest in all regions. During 1956-57 it was acclimatized in the Prague, Ceske Budejovice, Plzen, Liberec, Hradec Kralove, Ostrava krajs.

'Karkulka': Hybridized by the former ZUZR at Prerov through selection from a native variety from the Bzenecka. Allowed in 1939. Restricted in 1956.

Leaves about 45 cm high, erect, dark green. Bulb fairly large, round, flat to slightly arched in the upper half, narrowing conically in the lower part. Neck rather high, rather strong, well bound. Skin dark violet red with carmine violet veining, not very adhering. Flesh firm, white inside, under the skin, especially in the upper part, violet red, very sharp taste.

Growing time 165 days. It is suitable for drying. Tolerates rather heavy soils.

Seeding of this variety may be recognized for the last time in the harvest year 1958.

Garlic.

(Allium sativum L.)

Two native varieties, and one improved variety are allowed.

1. Bzenecko native (summer): Old native variety from the Bzenecko. Allowed in 1941.

The plant is about 40 cm high. The leaves are about 35 cm long, 1.5 cm broad, slightly projecting from the main axis flat. Number of leaves 8 - 10. Bulb flatly round, rather broader than high, with shallow rib-like furrows around the edge. White membrane envelope. The cloves are crescent-shaped, and are arranged in two to three circles spiraling above each other. Clove envelopes pale reddish violet or white.

2. Bzenecko 'Palicak'/tough/ native(winter). Old native variety cultivated in the Bzenecko. Allowed in 1941.

The plant is about 50 cm high. The leaves stand out slightly from the chief axis, and are 2.5 - 3 cm broad, and about 40 cm long, dark green, flower stem 70 to 80 cm high, erect. Bulbs flatly round with slightly protuding ribs, fairly large. Color of the skins of the buobs is light violet. Cloves are crescent shaped, envelopes light brown, stiff, easily slipping.

3. Prerov: Hybridized through individual selection from a native Bzenecko garlic. Allowed in 1954. Hybridizer: Hybrid Station at Stara Ves, okres Prerov.

The plant is 50 - 60 cm high. The leaves grow at an acute angle with the axis of the plant, are fairly long, fairly broad (2.5 - 3 cm.), light green. When [illegible]-ripe tha herbage collapses onto the ground. Bulbs large (70 g.), pear-shaped with more or less flat base, and sunken root-plate. Envelopes of the bulb white, firm; the bulbs do not crumble into cloves. The cloves are crescent-shaped, arranged irregularly in spirals. Clove-envelopes light yellow-brown, occasionally even reddish with red nervature.

Early. Growing time with autumn seeding 258 (250 - 268) days. Resistant to freezing. Can be stored rather long.

Black Salsify

(Scorzonera hispanica L.)

1.'One-year Giant'/jednoletý obri/: Hybridized from an acclimatized variety of a world-wide assortment. Allowed in 1946. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Root round to cylindrical, 25 -- 30 cm long; average root-head 2 - 4 cm; dark brown. Flesh white, pulpous, containing milky juice. Leaves long (35 - 40 cm), narrowly lanceolar, deep green with notable nervature; forms rich herbage.

Growing time 180 - 200 days. Requires early seeding. Does not exhaust itself in blossom.

2. Libochovice: Hybridized from 'One-year Giant' through individual selection. Allowed in 1954. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Root cylindrical, often slightly narrowed towards the tip, 20 - 25 cm long; root-head 2 - 4 cm broad; dark brown. Fleah white, tender, compact, containing milky juice. Leaves long (35 cm), narrowly lanceolar, deep green with notable nervature. Rich leafage.

Growing time 180 - 200 days. Requires early seeding. Does not exhaust itself in blossom.

Both these varieties are suited for cultivation in all regions where where it is possible to sow early, and in middling and rather light soils where it is possible to dig the tender roots easily.

Garden Bean

(Phaseolus vulgaris L.)

There are allowed in all ten hybridized varieties of garden beans; in our descriptions these are divided into three groups: a) green podded varieties, b) yellow podded varieties, c) pole beans:

In describing the varieties the following degrees of classification were employed:

Length of the pod: 1. short (under 9 cm), 2. fairly long (9 - 12 cm), 3. long (12 - 15 cm), 4. very long (above 15 cm).

Absolute weight of the seed: 1. low (under 250 g.), 2. middling (250 - 350 g.), 3. high (above 350 g.).

Period of maturity of the varieties: 1. very early (from up to the first harvest of pods, growing time of 50 days), 2. early (50 - 60 days), 3. semi-early (60 - 70 days), 4. late (70 - 80 days) 5. very late (above 80 days)

Green podded varieties

1. Detenice 'Konserva': Hybridized through individual selection from material obtained from market seed of Konserva beans. Allowed in 1952. Hybridizer: Hybrid Station at Detenice okres Jicin.

Semi-high bush (about 30 cm), spreading. Apex leaf fairly large, round, finely furrowed, light green. Blossom white. Pod fairly long, cylindrical, slightly curved to straight, green; has no fibre or parchment membranes; when ripe the seed is ripe, light brown. Seed fairly large, cylindrical, white, marbled reddish violet. Absolute weight 300 - 380 g.

Early variety, growing time up to the first harvest of beans on the average 62 days, up to seed maturity 106 days. Suitable for canning and for eating.

2. 'Kvalita' (Olomouc green-podded plump): Hybridized by the improvement section of the former ZVUZ at Brno through individual selection from a cross of the variety Schreiber Grand with Comodore. Allowed in 1956. Present hybridizer: Vegetable-Growers' Research Institute SAZV at Olomouc-Slavonina.

Semi-high to high bush, erect, branched. Apex leaf fairly large, deltoid in shape, flat, smooth to finely furrowed, green. Blossom pale violet. Pod long, cylindrical, straight to slightly bent, deep green, tender, juicy, without fibre or parchment membrane; when ripe the seed is ripe, light brown, marked out like a rosary. Seed large, cylindrical, almost straight, brown-red to red-violet with light yellow-brown marbling, shiny. Absolute weight averages 440 g.

Early variety, growing time up to the first harvest of pods 60 days, Suitable for industrial processing and for direct consumption.

3. Olomouc Green-podded flat: HYbridized by the impromont section of the former ZVUZ at Brno through individual selection fromaa cross of the variety Comodore with Schreiber Grand. Allowed in 1955. Present Hybridizer: Vegetable-Growers' Research Institute GSAZV at Olomouc-Slavonina.

Semi-high to high bush (42 cm), erect. Apex leaf fairly large, deltoid in shape, flat, light green. Blossom white, Banner yellowish. Pod long, cross section oval to flatly oval, light green, fleshy, tender, without fibres, parchment membranes occur in the older varieties; when the seed is ripe the pod is light brown, smooth. Seed large, cylindrical to kidney-shaped, white with yellow-grey veining. Absolute weight averages 420 g.

Early variety, growing time to the first harvest of the pods 60 days. Suited for direct consumption.

4. Podripsko: Hybridized through individual selection from materail obtained from market seed 'Sugar Pearl'. Allowed in 1952. Hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Semi-high to high bush (40 cm) with pods set high. Apex leaf fairly large, deltoid to round, finely furrowed, light green, blossom white. Pod long, cross section oval, straight with elongated tip, green, without fibre, parchment membrane is formed in the older pods. Seed large, cylindrical to bean/bob/ shaped, white with fine greyish veining. Absolute weight averages 370 g.

Early variety, growing time to the first harvest of pods 62 days, to seed ripening 106 days. Suited for direct consumption or for canning.

5. Slavia: Hybridized through individual selection from material from market seed of the Imruna. Allowed in 1952. Hybridizer: Hybrid Station at Doksany, okres Roudnice n. L.

Semi-high to high bush (37 cm), erect to bushy, with pods set high. Apex leaf fairly large to large, triangular to round,

finely furrowed, green. Blossom white with yellowish banner. Pod long, cylindrical, slightly curved, with elongated tip, green, without fibre or parchment membrane; when the seed id ripe the pod is light brown, slightly wrinkled, slightly lined. Seed fairly large to large, cylindrical, white. Absolute weight 350 g.

Early to very early variety, growing time to the first harvest of pods 60 days, to the ripening of the seed 106 days. Suited for canning and for direct consumption.

6. Veltrusi 'Saxan': Hybridized through individual selection from material obtained from market seed of Saxan beans. Allowed in 1952. Hybridizer: Hybrid Station at Veltrusi, okres Kralupy n. Vltavou.

Semi-high bush (32 cm), branched. Apex leaf fairly large triangular and elongated towards the tip, light green. Blossoms with white wings with bluish tint, and with reddish banner. Pod fairly long, cylindrical, straight to slightly bent with long tip, light green; without fibre or parchment membrane, when the seed is ripe, light brown, slightly wrinkled and lined. Seed fairly large to large, cylindrical, okre yellow, with flat eye bordered with two colors. Absolute weight averages 350 g.

Early variety, growing time to the first harvest of the pods 60 days, to seed maturity 100 days. Suitable for canning or for direct consumption.

Yellow-podded varieties.

7. Moravian Pearl: Hybridized by the improvement section of the former ZVUZ at Brno through individual selection from a cross of Comodore beans with Schreiber Early Wax beans. Allowed in 1955. Present hybridizer: Vegetable Growers' Research Institute at Olomouc-Slavonina.

Semi-high to low bush (32 cm) thickly foliate. Apex leaf

fairly large, triangular to deltoid shape, smooth to slightly wrinkled, green. Blossom white. Pod long, cylindrical, slightly bent with medium long and straight tip, wax-yellow, tender, fleshy, without fibre or parchment membrane; when the seed ir ripe the pod is light brown, with rosary-like lines. Seed fairly large, cylindrical, white with fine light brown stains of the side of the eye. Absolute weight averages 320 g.

Early variety, growing time up to the first harvest of pods 59 days. Suited for direct consumption and canning. Particularly suited for freezing.

8. Borcice 'Golden Horn'/zlaty roh/: Hybridized through individual selection from material obtained from market seed of Golden Horn beans. Allowed in 1952. Hybridizer: Hybrid Station at Turnov.

Low bush (30 cm), branched, moderately foliate. Apex leaf fairly large, elongated towards the tip, green to light green. Blossom with purplish wings tinted slightly red, and banner purplish tinted slightly blue. Pod fairly long, cross section flatly oval, straight to very slightly bent, with short tip either straight or slightly bent, light yeoolw, tender, without fibre; ther e is parchment membrane in the older pods; when the seed is ripe, the pods are light brown, smooth. Seed small, cylindrical, straight, yellow brown; in the older seeds the color passes to reddish; the eye is bounded by a double ribbon. Absolute weight 200 - 300 g.

Early variety; growing time to the first harvest of pods 60 days, up to maturity of the seed 100 days. Suitable for direct consumption or for canning.

Variety of
Varieties of Pole Beans.

9. Detenice: Hybridized through individual selection from material obtained from market seed of Kapitan Weddingen

beans. Allowed in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Plant about 3 m high, creeping readily. Leaf fairly large, broad, round, dark green. Blossom white, wings pale yellowish. Pod long, cross section oval to round, straight to bending wave-like, often twisted into an 'S' shape, light green; tender, without fibre. Seed quite large, cylindrical to slightly kidney-shaped, white with fine greyish net-like markings, eye bordered with pale yellow. Absolute weight averages 400 g.

Early to semi-early variety, growing time up to the first harvest of the pods72 days, up to seed maturity 108 days. Suitable for direct consumption or for canning.

10. Ostrava: Hybridized through individual selection from a native Ostrava variety. Allowed in 1950. Hybridizer: Hybrid Station at Stara Ves, okres Prerov.

Plant 3 - 3.5 m high, greeping readily. Leaf fairly large, round, elongated towards the tip, light green. Blossom light red violet. Pod fairly long, bent, cross section flatly oval, with short bent tip, wax-yellow, tender, without fibre. Seed fairly large to large, kidney-shaped, red violet with white flat eye. Absolute weight 410 - 530 g.

Semi-late to quite late variety, growing time up to the first harvest of pods 80 days, up to seed maturity 112 days. Suitable for direct consumption.

Garden Peas.

(Pisum sativum ssp. hortense (Neilr) A.Gr.)

During 1956-57 there were allowed in all eight varieties of garden peas, which are here divided according to the method in which they are used into three groups: a) narrow peas b) shelling peas, c) sugar peas.

To the second group there is appended the description of one variety which has been restricted. We here make note that among the descriptions of the field peas there are descriptions

of two other garden peas which are raised in fields.

Period of maturity of the variety: 1. early (with growing time from seeding to the first harvest of pods of 70 - 80 days), 2. semi-early (80 - 88 days), 3. late (82 - 90 days).

Varieties of marrow peas

1. Libochovice 'fertile'/urodny/: Hybridized through individual selection from an acclimatized variety of 'Prodigy' /Zazrak/ marrow peas from America. Allowed in 1955. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Semi-high plant (up to 90 cm), richly and thickly foliate. Leaves dark green. Pods 7 - 8 cm long, straight or slightly curved, ending abruptly in a small beak-like tip, green. They are mostly set in pairs. There are ordinarily 4 - 6 seeds in the pod. Seed rather small, wrinkled, pressed in on two sides, dull green. Early variety.

2. Lincoln: Hybridized by the Hybrid Station at Vrbicany from an acclimatized variety of a world-wide assortment of the same name. Allowed as a strain variety in 1941. Hybridizer: Hybrid Station at Uhretice, okres Chrudim.

Low plant (60 - 70 cm), extensively branched. Leaves dark green. Pods 8 - 9 cm long, straight or slightly curved with beak-like tip, dark green. There are ordinarily 6 - 7 seeds in the pod. Seed fairly large, cylindrical, extensively wrinkled, mostly yellow-green . Semi-early variety.

3. Senator: Hybridized through individual selection from an acclimatized variety of a World-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Semi-high plant (90 cm), sparsely branched. Leaves dark green. Pods 8 - 9 cm long, straight or slightly curved with

beak-like tip, predominantly two per stalk. There are ordinarily 4 - 6 seeds in the pod; they flail easily. Seed large, wrinkled, green, sometimes yellowish. Late variety.

4. 'Prodigy from Kelvedon'/zazrak z Kelvedonu/: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Low plant (40 - 50 cm), very extensively branched. Leaves dark green. Pods on the average 7 cm long, straight with beak-like tip, dark green. In part two per flower stalk. There are ordinarily 5 - 6 seeds in a pod. Seed fairly large, extensively wrinkled, green. Early variety.

Varieties of shelling peas

5. 'Canning Queen'/Konservova kralovna/:Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Stupice, okres Ricany.

High plant (130 cm), sparsely branched. Leaves dark green. Pods average 8 cm long. Slightly curved with beak-like tip, light green , usually two per stalk. There are an average of 5 - 6 seeds in a pod. Seed small, round, smooth, green. Late variety.

6. Libochovice 'Early': Hybridized through individual selection from a Saxon variety. Allowed in 1955. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Rather high plant (up to 120 cm), moderately foliate. Leaves rather small, light green. Pods 6 - 7 cm long, straight, ending gradually in a straight tip, light green, one or two per flower stalk. There are usually 4 - 6 seeds in a pod.

Seed rather small, slightly wrinkled, light okre color with pale yellow-green tint. Early variety.

7. 'Extra-rich'/prebohaty/:Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Semi-high plant (90 cm), meagerly branched. Pods 7 - 8 cm long, straight with beak-shaped tip, pale blue-green, On the average there are 5 - 6 seeds in a pod. Seed fairly large to quite large, round, occasionally even cylindrical, smooth, green. Semi-early variety.

Saxan: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Restricted in 1955.

Semi-high plant (70 cm), sparsely branched. Leaves light green. Pods on the average 7 cm long, curved with beak-like tip, whitish green. There are usually 4 - 6 seeds per pod. Seed fairly large to rather small, round or oval, smooth, yellow. Early variety.

Seeding of this variety may be recognized for the last time in the harvest year 1957.

Varieties of sugar peas

8. Heinrich's 'Early': Hybridized through individual selection from an acclimatized variety of the same name. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Semi-high plant (100 cm), sparsely branched. Leaves dark green. Pods ordinarily 7 cm long, curved with beak-like tip, yellow green, without stiff inner membrane, or inarily two per flower stalk. There are 4 - 6 seeds in a pod on the average. Seed round, smooth, red-yellow. Semi-early variety.

Asparagus

(Asparagus officinalis L.)

1. Ivancice:native: Old native variety cultivated for many years in the neighbourhood of Ivancice in Southern Moravia. Allowed in 1941.

The plant is 120 - 150 cm high when in bloom, big, dark green. Forms shoots 15 - 25 cm long, diameter up to 2 cm, white in color. The heads of the sprouts are pointed, greenish; flesh of the shoots white, delicate. Suited for light soils.

Palm Kale

(Brassica oleracea var. sabauda L.)

During 1956 - 57 there were allowed in all five hybridized varieties. In our descriptions they are divided into groups: a) early varieties (with growing time of 100 - 110 days), b) semi-early varieties (110 - 120 days) and c) late varieties (160 - 180 days).

Early varieties

1. 'Predzvest'/omen/: Hybridized by the Hybrid Station at Lysa n. L.-Litoli through individual selection from an acclimatized variety of world-wide assortment. Allowed as a strain variety in 1948, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Pointed heads, firm, yellow-green inside. Outer leaves quite large, yellow-green with conspicuous nervature. Stump low. Early variety.

2. 'Early Yellow': Hybridized through selection from a cross of an early palm-kale with the Samann variety. Allowed in 1952. Hybridizer: Hybrid Station at Stupice, okres Ricany.

The heads are round and pointed, firm, yellow-green inside. The outer leaves are round to oval, finely ribbed, fuzzy, dark green with greyish tint. Stump low. Early variety.

Semi-early varieties:

3. 'Zelezohlavka'/iron-head/: Hybridized through individual selection from a variety of a world-wide assortment. A Allowed as a strain variety in 1948, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Heads quite large, round, well wrapped, inside yellow-green. Outer leaves quite large, rugose, undulant around the edges, weakly ribbed, dark green. Semi-early variety.

Late varieties

4. Detenice 'late': Hybridized through individual selection from a native variety from Austria. Allowed in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Heads large, round to obovate, very firmly wrapped, beneath the surface green, inside yellowish green. Outer leaves oval to spade-shaped, finely ribbed, extensively rugose, vessel shaped, dark green with bluish tint and grey pruinosity. Late variety suitable for winter storage.

5. 'Vertus': Hybridized by the Hybrid Station at Celechovice through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1948, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Smrzici, okres Prostejov.

Heads large, flatly round, very thickly wrapped, inside color lighter. Outer leaves large, spreading, notable bubble-like rugosity, dark green, bluish pruinosity. Stump short. Late variety, suited for rather heavy, moist, and strong soils.

Brussels Sprouts

(Brassica oleracea var. gemmifera DC)

1. 'Spirala': Hybridized from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1948, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Turnov.

Semi-high variety (75 - 100 cm) very thickly set with firm buds arranged spirally on the stalk. Leaves spoon-like, grey-green. Buds 5 cm in diameter; developing very late. Late vegetable with growing time above 150 days. Resistant to frost.

Common Dill

(Anethum graveolens L.)

1. Prague 'fine': Hybridized by B. Tumlir at Predboj u Prahy through selection from a native variety. Allowed in 1944. Present hybridizer: Hybrid Station at Stara Ves, okres Prerov.

Fairly high plant (80 - 100 cm), moderately foliate. Stem grey-green . Leaves mostly fine, short, dense fibrous /nitkovity/ sections; leaf stalk long. Umbels fairly large (10 cm in diameter), circular with moderately thick to thick umbelules. Fruit fairly large, light grey-brown, egg-shaped to broadly elliptical, winged. Particularly suited fro moderately heavy, loosely humus and moist soils in rather low locations.

Horse Radish

(Armoracia rusticana G. M. Sch.)

1. Malino, native: Native variety cultivated for many years in the neighbourhood of Malino u Kutne Hory. Allowed in 1941.

Big leaves, elongatedly lanceolar, coarsely notched, bubbled, dark green, rather short leaf stalk, strong. Cordate leaves, characteristically yellow-green. Root cylindrical, narrowing slightly towards the point, okre-brown, smooth. Flesh white, savoury, delicate sweetish flavour, smelling agreably because of the radish oils. Not black after grating.

Cauliflower

(Brassica oleracea var. botrytis L.)

1. Stupice 'Giant': Hybridized by the Hybrid Station at Stupice through selection from a cross of the Haag Dwarf variety with Danish Export. Allowed in 1944. Present hybridizer: Hybrid Station at Veltrusi, okres Kralupy n. Vlt.

Stump semi-high. Leaves broadly spade-shaped, bright green,

concealing about half of the head. Flower cluster large, compact, arched, snow white, humped, without inter-growths. Very early, Spring or Autumn variety.

Egg-Plant

(Solanum melongena L.)

1. Czech Early: Hybridized by the Hybrid Station at Stupice through individual selection from a French variety whose name is not known. Allowed in 1952. Present hybridizer; Hybrid Station at Doksany, okres Roudnice n. L..

Fairly high plant (42 cm), semi-erect, branched, sparsely foliate, without thorns. Leaves small, egg-shaped, petiolate, bearing fine hairs, deep green with violet tint, violet nervature. Stem dark violet, Blossom small, violet. Fruit small, mildly egg-shaped to pear-shaped, dark violet, smooth, dully shiny. Flesh white, porous.

Very early variety, growing time up to 160 days. Suitable for rushingand for loose soils even in rather high locations. It is suitable for canning or for direct consumption.

2. Violet Long Native: Allowed in 1946.

Plant about 60 cm high, erect, sparsely branched and foliate. Leaves large, oblong, irregularly notched, grey-green with violet nervature. Chief nerve thornt. Stem grey-green, often with violet pigment. Blossom large, violet. Fruit oblongly egg-shaped to pear-shaped, dark violet, smooth.

Very late variety, growing time 185 days. In loose soils it may only be cultivated in the warmest areas. Requires strongly manured soil.

Sweet Marjoram

(Majorana hortensis Moench)

1. Bzenecko native: Native variety from the Bzenecko.

Allowed in 1941. Presnt hybridizer: Hybrid Station at Smrzici, okres Prostejov.

Rather low plant (28 cm), branched, erect, fairly thick. Stem grey-green with violet tint. Leaves broadly elliptical, grey-green, felt-like. Panicle long, thick, spikes long, sugar-loaf-shaped, flowerlets dirty white.

One-year plant. Suited for rather light and middling soils with sufficient moisture and nutrients in warm, sunny, and protected locations.

2. Kutna Hora native: Native variety from the Kutna Hora area. Allowed in 1941. Present hybridizer: Hybrid Station at Lysa n. L.-Litoli, okres Nymburk.

Plant most often fairly high (32 cm), branched, semi-erect, sparse. Stem grey-gree with brownish tint. Leaves elliptically spoon-shaped, grey-green, felt-like. Panicle grape-like. sparse, spikes short, sugar-loaf-shaped, flowerlets white with brownish tint.

One-year plant. Suited for rather light and middling soils with sufficient moisture and nutrients in warm, sunny, and protected locations.

Water and Musk Melons

(Citrullus vulgaris Schrad. and Cucumis melo L.)

There are allowed in all four varieties; among these are: a) one variety of water melon (Citrullus vulgaris Schrad.), and b) three varieties of musk melon (Cucumis melo L.). One variety of musk melon is hybridized. All of the others are native varieties.

Water melon

1. Green native: Allowed in 1946. Present hybridizer: Hybrid Station at Trebisov.

The plant has a long creeping stem, sparsely foliate. The leaves are large divided severally digitally, dark green. Blossom small, light greenish yellow. Fruit large, round, dark green, smooth, shiny. Flesh deep red with dark brown to black seeds, very juicy, sweet.

Growing time 180 days, period of ripeness 16 days. This variety is successfully raised in Slovakia and Southern Moravia.

Musk melon

2. Lednice: Hybridized through individual selection from a natural cross of the variety Konsul Schiller with a native variety of musk melon of unknown origin. Allowed in 1952. Hybridizer: Hybrid Station of the Genetics Laboratory CSAZV at Lednice, okres Breclav.

Big plant with creeping stem, richly branched and thickly foliate. Leaves large, coarse, green. Blossom small, light yellow. Fruit fairly large to large, round, ribbed, when unripe dark green, when ripe yellowish and with noticeable net-markings. Flesh orange yellow, juicy, has refreshing sweet flavour and pineapple-like odour.

Growing time up to the harvest of the first fruits 125 days, period of ripeness 34 days. Tolerates dry well.

3. Togo native: Allowed in 1950.

Plant with creeping stem, thickly foliate. Leaves rather small, light green, round, lobed. Blossom small, yellow. Fruit fairly large to small, oblong to egg-shaped, when unripe light green, when ripe greenish yellow, smooth. Flesh light green, juicy, very sweet, little smell. The fruits often split when ripening.

Growing time up to the harvest of the first fruits 120 days, period of ripeness 32 days. The present variety gives sure yields and ripens with certainity.

4. Turkestan, native: Allowed in 1946.

Plant with creeping stem, big, richly foliate. Leaves large, round, digitally divided, coarse, dark green. Blossom small, yellow. Fruit of diameter of about 12 cm, round, occasionally slightly oblong or flattened, when unripe dark brown green, when ripe greenish yellow, thickly and finely net-marked. Flesh whitish greenish, juicy, mildly sweet.

Growing time up to the harvest of the first fruits 126 days, period of ripeness 36 days.

Common carrot:
(Daucus carota L.)

During 1956-57 there were allowed in all eight varieties of carrot; namely: a) six early varieties, and b) two late varieties.

According to the method of cultivation and the length of the growing time the varieties are distinguished in the descriptions as: 1. for forcing with growing time of 80 - 100 days, 2. early field (125 - 150 days), 3. late field (180 - 200 days).

According to the shape and length of the root, the roots are distinguished as 1. round (very short -- up to 5 cm), 2. short (5 - 10 cm), 3. longish (10 - 15 cm), 4. long (above 15 cm).

Early varieties

1. Amsterdam: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Early variety suitable for forcing or for field cultivation. Root cylindrical, in loose soil longish, when rushed short; flesh reddish orange with inconspicuous marrow of the same color.

Foliage rather weak. Leaves fine with short petiole.

2. Duwicˇ: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Early variety suited for field cultivation, although it is also employed for rushing. Root short, wedge-shaped, blunt ending, almost smooth; flesh red to orange-colored, marrow fairly large and the same color. Leaves oblong, delicately feather-like, bright green. Foliage moderate.

3. Chantenay Lysa: Hybridized through individual selection from material obtained from market seed of the Chantenay variety. Allowed in 1952. Hybridizer: Hybrid Station at Lysa n. L.-Litoli, okres Nymburk.

Early variety suited for field cultivation. Root oblong, broadly conical, smooth, finely circled, bright red; flesh reddish, marrow large, orange red, marbled.

4. Nantais: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: HybridiStation at Smrzici, okres Prostejov.

Early variety s ited for field cultivation; may be used also for rushing. Root oblong, cylindrical, slightly narrower near the head and in the lower part, blunt point with notable tip, smooth, slightly furrowed; flesh red-orange, marrow small, almost the same color. Leafage fine.

5. Paris Market: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Dokany, okres Roudnice n. L.

Early variety particularly suited for forcing. Root very short, round, very furrowed on the surface; flesh orange-red, marrow small, lighter colored. Leaves finelyfeather-like, bright green.

6. Stupice 'Forcable': Hybridized through individual s selection from a cross of the Nantais carrot with the Duwick variety. Allowed in 1954. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Early variety suitable for forcing by heating. Root short, cylindricallyto narrowing slightly conically. Blunt end, almost smooth, finely furrowed, red; flesh orange red, under the surface deep red, marrow narrow, same color. Leafage rather weak. Leaves fine with rather long stalk, dark green.

Late varieties

7. Prerov 'Long Red': Hybridized by the former ZUZR at Prerov through individual selection from an acclimatized variety of Brunswick carrot. Allowed in 1939. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Late variety suited for field cultivation. Root long, slightly conical, pointed, smooth, rather light color. Leafage rich. Leaves semi-erect, dark green.

8. Stupice 'oblong': Hybridized by the HYbrid Station at Stupice through individual selection from the Flacker variety. Allowed in 1946. Hybridizer: Hybrid Station at Sibirina, okres Ricany.

Late variety suited for field cultivation. Root long, conical, rather strong, smooth, red; flesh light red, marrow reddish. Leaves erect with rather strong leaf stalks, dark green.

Cucumber

(Cucumis sativus L.)

During 1956-57 there were allowed in all ten hybridized varieties of cucumbers, including: a) pickling cucumbers -- three varieties, b) salad cucumbers -- three varieties, and c) glass case cucumbers -- two varieties, d) garden frame cucumbers -- two varieties.

The varieties of pickling cucumbers have been acclimatized since 1955.

Appended to the descriptions of these allowed varieties are descriptions of two restricted varieties which may still be recognized in 1957.

Size of the fruits: In the descriptions below the fruits are distinguished according to length as: 1. small (up to 5 cm), 2. short (5 - 15 cm), 3. semi-long (15 - 30 cm), 4. long (above 30 cm).

Varieties of pickling cucumbers

1. Bilsko Pickles: Hybridized by Jar. Pour at Dobra Voda through individual selection from a native variety cultivated in the neighbourhood of Bilsko. Allowed in 1952. Present hybridizer: Hybrid Station at Dobra Voda, okres Horice v Podkrkonosi.

Richly foliate plant. Leaves fairly large, dark green. Fruits short, straight, cylindrical, narrowing slightly towards the end, rounded around the neck, triangolar in cross-section, dark green, striped somewhat more lightly near the end; surface finely humped, with numerous small warts. Flesh firm, tender, whitish, sweetish flavor. Heart /jadrinec/ fairly large.

Growing time up to the harvest of the first fruits 70 days, period of fruit-bearing 60 days. During 1956-57 it was acclimatized in the Hradec Kralove kraj.

2. Melnice Pickle: Hybridized by J. Podrabsky at Kralupy n. Vlt. from a native variety cultivated at Melnice. Allowed as a hybridized variety in 1946. Present hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Richly foliate variety. Leaves fairly large, dark green. Fruits short, cylindrical, triangular in section, green, striped somewhat more lightly towards the end, occasional warts on the surface. Flesh firm, whitish. Heart small.

Growing time up to the harvest of the first fruits 70 days, period of fruit-bearing 60 days. Resists cucumber blacks well, and likewise tolerates changes in temperature during vegetation. During 1956-57 it was acclimatized in the Prague, Karlovy Vary, Usti n. L., Liberec, Hradec Kralove, Pardubice, Olomouc, Ostrava, Nitra, Banska Bystrica, Zilina, Kosice, Presov krajs.

3. Znojmo Pickle: Hybridized through individual selection from a native Znojmo pickling type. Allowed in 1954. Hybridizer: Hybrid Station at Valtice, okres Mikulov.

Richly foliate plant. Leaves rather small, green. Fruits short, oval, quite slim, near the stalk rounded off, narrowing slightly towards the end, triangular in section, dark green, with lighter stripes towards the end, covered with small warts on the surface. Flesh firm, tender, white, sweetish. Heart fairly large.

Growing time up to the harvest of the first fruits 62 days, period of fruit-bearing 58 days. It tolerates the dry Southern Moravian climate well. During 1956-57 it was acclimatized in the Pardubice, Brno, Olomouc, Gottwaldov, Bratislava, Nitra, Banska Bystrica, and Kosice krajs.

Znojmo native pickle: Old native variety long cultivated in the Znojmo region. Allowed in 1946. Restricted in 1954.

Thickly foliate plant. Leaves rather small, sharply cleft bright green. Fruits short, oval, slightly narrowing towards the point, triangular in section, dark green, striped more lightly towards the point, covered with fine warts on the surface. Flesh firm, white. Heart very small.

Growing time up to the harvest of the first fruits 62 days, period of fruit-bearing 58 days. Very well suited for Southern Moravia.

Seeding of this variety may be recognized for the last time in the harvest year 1957.

Varieties of salad cucumbers.

4. Chinese 'Twining': Hybridized through individual selection from an acclimatized variety of world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Smrzici, okres Prostejov.

Richly foliate plant. Leaves dark green. Fruits long, slim, towards the stem neck-like narrowing, round in section, dark green, only near the point more lightly striped, occasional warts on the surface with white thorns, Flesh fine, white. [redacted] small.heart.

Growing time up to the harvest of the first fruits 70 days, period of fruit-bearing 60 days. Requires sufficient moisture, and when dry forms [redacted] deformed fruit.

5. 'D[redacted]ikates': Hybridized through individual selection from an acclimatized variety of a world-wide assortmant. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Valtice, okres Kralupy n. Vlt.

Richly foliabe plant. Leaves middling to large, dark green. Fruits fairly long, cylindrical, triangular in section, green, striped more lightly near the point, surface of the young fruits have occasional warts with fine white thorns. Flesh fine, white, Heart [redacted] fairly large.

Growing time up to the first harvest of the fruits 68 days, period of fruit-bearing 62 days. When unripe it is possible to harvest them as pickles.

6. Mlada Boleslav salad: Hybridized through selection from a native variety of Cernava salad cucumber. Allowed as

a hybridised variety in 1952. Hybridizer: Beet-growers' Research Institute CSAZV at Semcice, okres Mlada Boleslav.

Richly foliate plant. Leaves large, dark green. Fruits fairly long, cylindrical, rather slim, without neck, round in section, dark green, only striped more lightly near the point, surface smooth with isolated warts. Flesh white, heart small.

Growing time up to the harvest of the first furits 70 days, period of fruit-bearing 62 days. Gives reliable yields even in rather heavy soils.

Glass-case cucumbers.

7. 'Nejlepsi ze vsech'/Best of all/:Hybridized through individual selection from an acclimatized variety of world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Sparsely foliate plant. Leaves large, digitally lobed, dark green. Fruits long, elongated to winding, slim, with sharp point, small neck, surface smooth with dense white thorns. Flesh white, fine.

Growing time up to the harvest of the first fruits 114 days, period of fruit-bearing 50 days. Suited for winter or autumn rushing in glass-cases.

8. 'Spot Resisting': Hybridized through individual selection from an acclimatized variety of world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Sibirina, okres Ricany.

Sparsely foliate plant. Leaves fairly large, digitally divided, dark green. Fruits long, slim but full with typical twisting neck, dark green, slightly bumpy on the surface with occasional white thorns. Flesh fine, white, Heart very small.

Growing time up to the harvest of the first fruits 106 days, period of fruit-bearing 46 days. Suitable for Spring and summer rushing under glass.

Garden frame cucumbers

9. 'Jedinecna'/matchless/: Hybridized through individual selection from a cross of the variety 'Produkta' with 'Schuetz' and 'Reforma' with'Gangova'. Allowed in 1952. Hybridizer: Hybrid Station at Melnik-Mlazici.

Sparsely foliate plant. Leaves fairly large, deeply digitally five-lobed, bright green with notable veining. Fruits oblong, cylindrical, slim, straight to slightly curved, narrowing towards both ends, green with lighter stripes near the point, surface mostly smooth, occasionally also with warts. Flesh whitish to pale yellowish. Heart very small.

Growing time up to the harvest of the first fruits 75 days, period of fruit-bearing 50 days. Suited for cultivation in warm, semi-warm, and cold frames. Plant two plants per window.

10 Zidovice 'Produkta': Hybridized through individual selection from a cross of 'Sensace k rychleni' with 'Konkurent'. Allowed in 1956. Hybridizer: Hybrid Station at Zidovice, okres Roudnice n. L..

Plant thickly foliate. Leaves large, shallow division into digital lobes, green to dark green. Fruits oblong, cylindrical to elongated, straight or slightly curved, rectangular to round in section, green to dark green with rather lighter stripes which extend about a third of the total length; surface smooth with occasional warts with whitish thorns. Flesh whitish tender, with agreable sweetish flavor. Heart fairly large.

Growing time up to the harvest of the first fruits 77 days, period of fruit-bearing 65 days. Forms rather small and rather weak bushes with rather short sprouts, thus making easier its cultivation.

'Landovska': Hybridized by the Hybrid Station at Sibirina through individual selection from a native Branice twining type. Allowed in 1946. Restricted in 1956.

Sparsely foliate plant. Leaves large, dark green. Fruits oblong, cylindrical, slim, dark green, striped somewhat more lightly in the lower third, surface smooth to slightly bumpy, Flesh white. Heart small.

Growing time up to the harvest of the first fruits 78 days, period of fruit-bearing 55 days. Suited for cold and semi-warm frames.

Seeding of this variety may be recognized for the last time in the harvest year 1957.

Paprika

(Capsicum annuum L.)

During 1956-57 there were allowed in all eight different kinds of paprika, including: a) four hybridized varieties of vegetable paprika, and b) three hybridized and one native variety of condiment paprika.

In the descriptions the following degrees of classification were employed:

Height of the Plant: 1. low (under 40 cm), 2. fairly high (40 - 60 cm), 3. high (above 60 cm).

Size of the leaves: 1. small (length under 5 cm), 2. fairly large (5 to 8 cm), 3. Large (above 8 cm).

Period of maturity of the variety:

1. with vegetable paprika :a) early (with growing time from seeding to technical maturity of the fruit 130 days), b) semi-early (130 - 140 days), c) late (above 140 days)

2. with condiment paprika :a) early (under 140 days), b) semi-early (140 - 170 days), c) late (above 170 days).

Varieties of vegetable paprika

1. Czech 'Early': Hybridized by the Hybrid Station at Stupice from a cross of of the variety 'Rubinovy Kral'/Rubinov King/ with 'Large Four-sided Sweet'. Allowed in 1952. Present hybridizer: Hybrid Station at Doksany, okres Roudnice n. L..

Fairly high plant, erect, moderately foliate. Stem green, brownish at the branching. Leaves fairly large to large, lanceolar, dark green. Blossom small, white. Fruit oblong, angular, ribbed,

with blunt end, about 8 cm long and 5 cm wide, when ripe for market light green, when ripe for seed red.. Stalk fairly long. Calyx xxxx five- to seven- pointed. Pericarp 2 - 3 mm thick, juicy. Sweet, agreable condimant smell. The fruit are placed erectly on the plant.

Early variety, suited for cultivation even in rather cool areas.

2. Hodonin 'Green': Hybridized by the former Hybrid Station at Velke Pavlovice from a cross of the variety 'Weisser Koenig' with 'Zlaty Roh'/Golden Horn/. Allowed in 1946. Present Hybridizer: Hybrid Station at Cejce, okres Hodonin.

Fairly high plant, erect, richly branched, moderately foliate. Stem green, violet at the crotch. Leaves fairly large, lanceolar, at the base wedge-shaped, rather dark green. Blossom fairly large, white. Fruit oblong, angular and domed, ribbed, with blunt point, about 8.5 cm long and 5.5 cm wide, when ripe for market green, when ripe for seed scarlet red. Stalk fairly long. Calyx five- to seven- pointed. Pericarp 2 - 3 mm thick, juicy. Sweet, finely aromatic. Placement of the fruits on the plant erect.

Semi-early variety.

3. Moravian 'Ovocna'/fruit-like/:Hybridized through individual selection from material obtained from a spontaneous cross of the varieties 'Rotund Green','Rotund Mlecne Kvetouci' /creamy blossoming/, and 'Kalvil Yellow'. Allowed in 1952. Hybridizer: Hybrid Station of the Genetics Laboratory CSAZV at Lednice, okres Breclav.

Rather low to fairly high plant, erect to semi-erect, thickly foliate. Stem green, light violet at the branching. Leaves rather small to fairly large, lanceolar, oval at the base, yellowish green. Blossom small, white. Fruit apple-shaped,

more or less rounded but with suggestions of ribs, about 4.5 cm long, and 6.5 cm wide, when ripe for market greenish yellow, when ripe for seed red. Stalk fairly long, bent, light yellow-green and green stripes. Calyx five- to six-pointed. Pericarp 3 - 5 mm thick, juicy. Sweet, slight condiment odor. Placement of the fruit on the plant pendant.

Semi-early variety.

4. 'Severka'/North Star/: Hybridized through individual selection from the 'Harris Early Giant' variety. Allowed in 1952. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Low plant, bushy, sparsely foliate. Stem green, violet at the branching. Leaves rather small. lanceolar, oval at the base, dark green, shiny. Blossom small, white. Fruits oblong, angular, ribbed, often distorted, with blunt point, about 9 cm long and 6 cm wide, when ripe for market dark green, when ripe for seed red. Stalk rather short, green. Calyx five- to six-pointed, exceptionally seven-pointed. Pericarp 2 - 3 mm thick, quite juicy. Sweet paprika, unexceptional flavor. Placement of the fruits on the plant pendant.

Semi-early variety. Suited for cultivation even in rather cool regions.

Varieties of condiment paprika.

5. Hodonin 'Ostra'/sharp/: Hybridized by the former Hybrid Station at Velke Pavlovice through individual selection from material obtained through spontaneous crossing of native Magyar varieties, Allowed in 1946. Present hybridizer: Hybrid Station at Valtice, okres Mikulov.

Fairly high plant, semi-erect, richly foliate. Leaves rather small, pointed, deep green. Fruits conical, oblong, pointed, straight to slightly curved, at technical maturity carmine red, thick-walled. Very peppery (sharp), intense odor.

Placement of the fruits on the plant xxxxxx pendant.

Rather late variety. Suitable for the production of condiments: sharp pepper.

6. Hodonin 'Sweet Pendant'/sladka previsla/: Hybridized by the former Hybrid Station at Velke Paclovice through individual selection from material obtained through spontaneous crossing of native Magyar varieties. Allowed in 1955. Present hybridizer: Hybrid Station at Valtice, okres Mikulov.

Fairly high plant, semi-erect, densely foliate. Leaves fairly large, ellipse-shaped with extended point, rather light green. Blossom white . Fruits broadly conical, straight, occasionally curved near the point, about 13.5 cm long and 3.4 cm wide, at technical maturity deep red. Pericarp 2 - 3 mm thick. Sweet, agreably aromatic. Placement of the fruit on the plant pendant.

Late variety. Suited for the production of condiments; xxxx pepper, sweet.

7. Hodonin 'Sweet Erect'/sladka vzprimena/: Hybridized through individual selection from material obtained through spontaneous crossing of native Magyar varieties by the former Hybrid Station at Velke Pavlovice. Allowed in 1946. Present hybridizer: Hybrid Station at Valtice, okres Mikulov.

Fairly high plant, semi-erect, richly foliate. Leaves fairly large, green. Fruits oblong, conical, pointed, straight to slightly bent, at technical maturity carmine red, shiny, thick-walled. Sweet. agreable odor. Placement of the fruit on the plant erect.

Late variety. Suitable for the production of condiments: sweet pepper.

8. Native 'Thin-walled'/ tenkostenna/: Sweet Moravian native variety. Allowed in 1946.

Low plant, spreading, densely foliate. Leaves rather small, rather light green. Fruits conical, rather small, straight to slightly curved, rounded tip, at technical maturity rather light carmine. Sweet flavored paprika. Placement of the fruit on the plant erect.

Late variety. In wet years the fruit rots; it dries better than the thick-walled varieties.

Parsnip

(Pastinaca sativa L.)

1. 'Long White': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1946, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Root long (about 30 cm), elongatedly conical, diameter of the head 4 - 5 cm, yellow-brown to yellowish. Flesh whitish, sweetish, fine condiment odor. Plant has extensive foliage. Leaves simply curled, oval or ellipitical, shiny on the face, grass green. End leaflet tri-lobed. Resistant even to heavy frosts. Growing time about 180 days.

Chive

(Allium schoenoprasum L.)

1. Prague native: Native variety cultivated for many years in the neighbourhood of Prague. Allowed in 1946. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Enduring plant. Forms thick, 15 - 30 cm high bunches of abundant, narrow, hollow, pipe-like, smooth, and long awl-shaped leaves dark green in color. Umbels ordinarily reddish to purplish. Delicate flavor and condiment odor. Early variety. Suited for cultivation in loose soil, and for rushing to supply winter markets.

Garden Parsley

(Petroselinum hortense Hoffm.)

During 1956-57 there were allowed in all five hybridized varieties of parsley including: a)four varieties of condiment parsley, and b) one variety of herbage parsley.

According to the length of the root, the varieties of condiment parsley are classified as:1. short rooted (under 15 cm), 2. semi-long rooted (15 - 25 cm), and 3. long rooted (above 25 cm).

Varieties of condiment parsley

1. 'Short': hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Dobrenice, okres Hradec Kralove.

Short root, conical, surface finely furrowed both crosswise and up and down, light yellow to whitish, with fine root hairs. Flesh whitish. Leaves dissected and curled, finely cut dark green with bluish tint, slightly shiny; leaf stalk long.

Growing time up to the beginning of harvest about 150 days, up to the end of the harvest 180 days.

2. Prerov 'Semi-long': Hybridized by the former ZUZR at Prerov through individual selection from an acclimatized Bardovicka parsley. Allowed in 1939. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Root semi-long, conical, pointed, surface smooth or slightly furrowed, light okre-colored, with sparse and fine root hairs. Flesh ye lowish white. Leaves dissected and curled, narrowly divided, fairly thick, dark green with slight gleam; leaf stalk fairly long.

Growing time 180 - 200 days.

3. Stupice 'Semi-long': Hybridized through selection from a native Czech variety. Allowed in 1946. Hybridizer: Hybrid Station at Sibirina, okres Ricany.

Semi-long root, conical, pointed, surface finely furrowed, both across and up and down, to smooth, light okre-colored, with sparse and fine root hairs. Flesh whitish to pale yellowish. Leaves dissected and curled, less pinnate, finely cut, dark green with pale gleam; leaf stalk long; herbage spreading.

Growing time 180 - 200 days.

4. Olomouc 'Long': Hybridized through individual selection from a native variety from the Bzenecko. Improvement begun at the former Agricultural Research Institutes at Brno, completed by the VUZ at Olomouc. Allowed in 1955. Hybridizer: Vegetable-Growers' Research Institute at Olomouc-Slavonina.

Long root, conical, narrowing towards the tip, surface finely furrowed cross-wise, dirty okre-colored with fine hairs. Leaves dissected and curled, with straight sections, dark green, slightly shiny; leaf stalks rather long; herbage semi-erect. Flesh whitish with greyish tint.

Growing time 180 - 200 days.

Varieties of Herbage Parsley.

5. 'Kaderava'/rugose/: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Herbage rich. Leaves dissected and curled, divided in rather wide, round, notched, and rogose leaflets dark green in color, without gleam; leaf stalk short, grooved. Root semi-long to short, moderately to weakly branching, light okre-colored. Flesh whitish, without the typical parsley odor.

It can be harvested the whole year round by cutting thr leaves.

True Leek

(Allium ampeloprasum ssp. porrum (L.) Regel.)

During 1956-57 there were allowed three hybridized varieties.

1. Carentan: Hybridized through individual selection from an accclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station of the Genetics Laboratory CSAZV at Lednice, okres Breclav.

Leaves fairly long, narrow to rather wide, bluish green, standing at an acute angle with the stem. Stem semi-long. almost erect, weak to fairly strong, slightly narrowing near the bulblet. Bulbous part notable, though never strongly developed. Winters well.

2. Detenice: Hybridized by the Hybrid Station at Detenice through individual selection from an acclimatized variety named 'Elefant'. Allowed in 1952. Presant hybridizer: Hybrid Station at Valtice, okres Mikulov.

Leaves 40 - 50 cm long, broadly lanceolar, dark green, pruinose. Stem cylindrical, about 3 - 4 cm thick, length of the whitish part 6 - 7 cm. Bulblet not developed. Flesh whitish to greenish, juicy, firm, tender after cooking, deliciously/ /lahodne/ sweet.

Growing time up to market ripeness about 200 days. Winters very well.

3. 'Elefant': Hybridized by the Hybrid Station at Valtice through selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Kvetoslavov, okres Samorin.

Leaves quite broad, standing far out from the stem, dark green to blue-green. Stem strong, semi-long, cylindrical, without bulbous thickening. Not very resistant to frost.

Tomato

(Solanum lycopersicum L.)

During 1956-57 there were allowed in all nine hybridized varieties of tomatoes, including: a) eight varieties of tomatoes for field cultivation, and b) one variety of glass-case tomato.

Varieties of tomatoes for field cultivation

1. 'Condine Red': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Veltrusi, okres Kralupy n. Vlt..

Bush high to very high (140 cm), thickly foliate. Leaves fairly large to large, dark green, finely down-covered to smooth. Cluster ordinarily simple, averages 5 - 6 fruit. Fruits round to flatly round, brick red, shiny, smooth, with shallow stalk depression. Fairly large, average weight 75 g.(60 - 95 g).

Early variety. Growing time up to the maturity of the fruit 126 (122 - 138)days. Suited for direct consumption or machine for ~~industrial~~ processing.

2. 'Immun': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Zidlochovice, okres Roudnice n. L..

Bush semi-high to low (65 cm), with sturdy stem. Leaves short, thick, typically extensively rugose, dark green with greyish tint. Cluster simple, averages four fruit. Fruits flatly round, brick red, fairly large, average weight 57 (51 - 65) g. Flesh carmine red.

Early variety. Growing time up to the maturity of the fruits 126 (114 - 139) days. Suited for cultivation without stakes. Suitable for direct consumption or for machine processing.

3. Olomouc low: Hybridized through individual selection from a cross of the variety 'Self Pruning' with 'Niedriger Busch'. Allowed in 1954. Hybridizer: VUZ CSAZV at Olomouc-Slavonina.

Bush low (48 cm), spreading, determinant/sic/, with short stalk, richly branched. Leaves fairly large, slightly rugose, downy, green. Cluster ordinarily simple, averages 3 - 4 fruit. Fruits flatly round, brick red, fairly large, average weight 70 (58 - 89)g. The larger fruits have rib-like markings. Flesh rosy.

Early variety. Growing time up to the ripening of the fruits 128 (114 - 144) days. Cultivated without stakes. Suitable for direct consumption or for machine processing.

4. Ostrava: Hybridized by Jar. Trubecky at Ostrava through selection from a mutant of the 'Immun' variety. Allowed in 1952. Present hybridizer: VUZ CSAZV at Olomouc-Slavonina.

Semi-high bush (75 cm), semi-leaning, little branching. Leaves short, broad, finely rugose, downy, green. Cluster ordinarily simple, averages 5 - 6 fruits. Fruits round to flatly ruond, occasionally higher than broad, fairly large to small, brick red, smooth or wrinkled, average weight 50 (40 - 60) g.

Very early variety. Growing time up to the maturity of the fruits 122 (118 - 132) days. Suited for direct consumption or for machine processing.

5. Pruhonicky 'Universal': Hybridized by Eng. J. Soucek at Borcice from a native Pruhonicke tomato. Allowed in 1946. Present hybridizer: Hybrid Station at Turnov.

Bush high to very high (130 cm) with leaning stalk, moderately foliate. Leaves large, rather sparse, downy, light green. Cluster simple, averages 5 - 7 fruits. Fruits round to

flatly round with shallow stalk depression, fairly large, brick red, average weight 70 g. (60 - 83 g). Flesh carmine rose.

Early variety. Growing time up to the maturity of the fruit 125 (114 - 142) days. May be rushed. Suited for direct consumption or for processing as ketchup.

6. Rhine Valley 'Slava': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hop-Growers' Research Institute CSAZV at Zatec.

Bush high to very high (145 cm), with leaning stalk, moderately foliate. Leaves large, moderately thick, dark green, finely downy. Cluster ordinarily simple or double, averages 6 fruit. Fruits round to flatly round, fairly large, brick red; average weight 70 g (54 - 80 g). Flesh carmine rose.

Semi-early variety. Growing time up to the maturity of the fruit 132 (122 - 153) days. Suited for direct consumption or for processing as ketchup.

7. Stupice early field: Hybridized through indivisual selection from a cross of the varieties ('Mikado' with Rhine Valley) with Solanum racemigerum. Allowed in 1955. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Bush high (120 cm). Leaves simple and curled, ressembling potato laaves, broad, finely downy, dark green. Cluster simple or occasionally complex, averages 6 - 8 fruit. Fruits flatly round, usually with small and shallow stalk depression, deep red, smooth, fairly large, average weight 50 g.

Very early variety. Growing time up to the maturity of the fruits 118 days. Suited for direct consumption for for machine processing.

flatly round with shallow stalk depression, fairly large, brick red, average weight 70 g. (60 - 83 g). Flesh carmine rose.

Early variety. Growing time up to the maturity of the fruit 125 (114 - 142) days. May be rushed. Suited for direct consumption or for processing as ketchup.

6. Rhine Valley 'Slava': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizor: Hop-Growers' Research Institute CSAZV at Zatec.

Bush high to very high (145 cm), with leaning stalk, moderately foliate. Leaves large, moderately thick, dark green, finely downy. Cluster ordinarily simple or double, averages 6 fruit. Fruits round to flatly round, fairly large, brick red; average weight 70 g (54 - 80 g). Flesh carmine rose.

Semi-early variety. Growing time up to the maturity of the fruit 132 (122 - 153) days. Suited for direct consumption or for processing as ketchup.

7. Stupice early field: Hybridized through indivisual selection from a cross of the varieties ('Mikado' with Rhine Valley) with Solanum racemigerum. Allowed in 1955. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Bush high (120 cm). Leaves simple and curled, ressembling potato leaves, broad, finely downy, dark green. Cluster simple or occasionally complex, averages 6 - 8 fruit. Fruits flatly round, usually with small and shallow stalk depression, deep red, smooth, fairly large, average weight 50 g.

Very early vareity. Growing time upto the maturity of the fruits 118 days. Suited for direct consumption for for machine processing.

8. Vrbicany low: Hybridized through individual selection from a cross of the variety 'Stupice Early' with 'Bellevue Busch. Allowed in 1952. Hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Bush low (155 cm), spreading, determinant. The stalk completes its growth rapidly and ends in the inflorescence. Leaves small, short, finely rugose, dark green. Cluster ordinarily simple, averages 4 fruit. Fruits flatly round, smooth, shallow ribbing near the stalk depression, brick red, fairly large, average weight 60 g. (50 - 82 g). Flesh light carmine red.

Very early variety. Growing time up to the maturity of the fruit 122 (116 - 136) days. Cultivated without stakes. Suited for direct consumption or for processing as ketchup.

Glass case tomatoes.

9. Stupice Glass-case: Hybridized through individual selection from a cross of the variety ('Mikado' with Rhine Valley) with Solanum racemigerum. Allowed in 1954. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Bush high to very high with leaning stalk, sparsely foliate. Leaves large, ordinarily rather broader than long, slightly rugose, ~~xxxxxxxxxx~~ downy, dark green. Cluster ordinarily simple, occasionally double or complex, averages 7 - 9 fruit. Fruits round to flatly round, brick red, fairly large, average weight 55 g. Flesh light carmine.

Early to very early variety. Growing time up to the maturity of the fruits 122 to 160 days. Does not suffer from bursting of the fruits. Suited for direct consumption.

True Seed Radish

(Raphanus sativus ssp. sativus L.sp.)

1. Native Round Black: Old native variety of autumn radish.

Allowed as native in 1952. Hybridizer:Hybrid Station at Velké Lomnice, okres Kezmarok.

Root round to flatly round, black. Leaves quite big, broadly spade-shaped, deeply lobed, dark green. Late variety. Growing time 100 - 120 days.

2. Semi-long White: Hybridized from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Uhretice, okres Chrudim.

Root cylindrical, narrowing conically towards the point, 15 - 20 cm long, 6 - 7 cm broad, whitish grey, greenish near the head. Flesh white, tender, sharply burning, agreable flavor. Leaves broadly spade-shaped, deeply lobed to feather-like, shallowly undulant, bright green, sparse hairs on the reverse of the leaf and on the petiole. Early variety of spring radish. Growing time about 65 days.

Turnip Radish

(Raphanus sativus var. radicula Pers.)

During 1956-57 there were allowed fivr varieties of turnip radish.

1. Borcice Early Red: Hybridized by Eng. J. Soucek at Borcice from a native Pruhonicka turnip radish. Allowed in 1946. Present hybridizer: Hybrid Station at Turnov.

Tuber ovally round, smooth, scarlet red with fine, sharply protruding rootlets. Flesh snow white, occasionally with reddish tint, firm, very delicious flavor. Plant sparsely foliate, leaves light green.

Growing time in frames 28 - 33 days, in open ground 32-36 days. Suited for forcing, or for open ground. Very early variety.

2. Round Half-red Half-white: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybrid variety in 1952. Hybridizer: Beet-growers' Research Institute, CSAZV at Semčice, okres Mlada Boleslav.

Tubers round, upper half scarlet red, lower half white. Plant richly foliate, leaves quite strong.

Because of the rather long growing time (38 - 40 days), this is particularly suited for open ground.

3. Butter Giant: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Tubers particularly large (average 3.5 - 4 cm), round to ovally round, smooth, rootlet whitish, transition from the tuber red. Flesh snow white, occasionally even with reddish tint, firm, only sometimes hollow/vyseptala/, delicious flavor. Plant extensively foliate, leaves coarse.

Growing time 40 - 45 days. Because of the rather long growing time and the extensive leafage the variety is mainly suited for open ground. It has too much herbage for forcing.

4. Rampouch: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Tubers long, ordinarily spindle-shaped with lightly greenish neck. Flesh white, tender, non-hollow, juicy. Plant large-leaved, leaves strong.

Particularly suitable for field seeding and for late seeding, for even during the summer it gives fine yields. It may be forced.

Growing time in frames 38 - 40 days, in open ground 38-45 days.

5. Saxa for Forcing: Hybridized through individual selection from an acclimatized variety of world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Dobrenice, okres Hradec Kralove.

Round tubers, scarlet red. Flesh white, firm, delicate flavor. Plant small leafed, leaves small and short.

Growing time in frames 28 - 33 days, in open ground 32 - 36 days. Very early variety, particularly suited for forcing, it can also be used for open ground. When the tubers over-ripen they rapidly become sponge-like and acquire a dropsical flavor.

Salad Beet

(Beta vulgaris ssp. esculenta Guerke f. rubra)

1. Round Red: Hybridized through selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Turnov.

Round tuber with diameter of 4 - 8 cm, and with head rather protruding, cross section dark blood red to dark red. Leaves fairly large, elongated, initial vegetation green to dark green with reddish tint and red venation, later vegetation predominantly red, withratner long, relatively fine and red leaf stalks.

Growing time 160 - 180 days. Root plant for autumn harvest.

2. Egyptian Flat: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Slapy, okres Tabor.

Tuber flat or flatly round with diameter of 5 - 8 cm and height of 4 - 5 cm, section carmine red. Leaves fairly large, oblong, oval, green with red veins, in cool summers and in the autumn entirely red.

Growing time 140 - 170 days.

Lettuce

(Latuca sativa L.)

During 1956-57 there were allowed in all eight hybridized varieties of lattuce, including: a) three varieties of forcing lettuce -- with growing time of 65 - 85 days, b) one variety of early field lettuce -- with growing time of 85 - 100 days, (suited for early cultivation, but cannot be raised in the Summer), c) three varieties of summer field lettuce --with growing time almost the same as the field variety (more resistant to exhaustion in blooming, and may be cultivated even at the end of the Spring and in early Summer), d) one variety of Winter lettuce(for seeding in the Winter and harvest early in the Spring).

Varieties of Forcing Lettuce

1. Boettner's: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Kvetoslavov , okres Samorin.

Head small, round, above slightly flattened, closed, yellow-green; outer leafage small so that the head is loose. Outer /sic/ leaves fairly large, broadly oval, slightly notched, slightly bubbled and rugose, bright light green, with light sivery tint below. Seed white.

Very early variety.

2. Gottwaldov May King: Hybridized at thr agricultural unit /hospodarstvi/ at Gottwaldov through individual selection from material obtained from the market seed of a variety of

a world-wide assortment. Allowed in 1952. Present hybridizer: Hybrid Station at Zidlochovice, okres Roudnice n. L..

Oval head , fairly firmly wrapped. Outer leaves large, oval, narrowing towards the base, smooth, slightly bending, light green with edge inconspicuously violet-tinted. Seed silver-grey.

Early variety.

3. Stupice 'Kamenac'/hard/: Hybridized through individual selection from material obtained through cross-pollination of several native Czech varieties of Kamenac lattuces by the Hybrid Station at Stupice. Allowed in 1946. Present hybridizer: Hybrid Station at Sibirina, okres Ricany.

Round head, very firm and hard, green. Outer leaves small, round, bubbled, semi-erect, dark green, slightly reddish at the tips. Seed dark brown.

Semi-early variety. Rather more resistant to mildew and leaf-rot than the other forcing lettuces. Comes into bloom early. Tolerates transporting very well.

Varieties of Early Field Lettuce

4. Melnice May King: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1946, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Head roundly pointed, well wrapped. Outer leaves slightly rugose, bright green. Seed dark brown.

Early variety. Suited for early cultivation in open ground.

Varieties of Summer Field Lettuce.

5. Bohemia: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed

as a strain variety in 1946, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Head fairly large, flatly round, closed, whitish green, with light yellowish tint in the middle. Outer leaves relatively small, broadly oval, slightly rugose, weakly notched at the edges, lightly pendant, very tender, whitish green. Seed white.

Semi-early variety. Comes to bloom late.

6. Detenice 'Atrakce': Hybridized through selection from a variety of a world-wide assortment. Allowed in 1952. Hybridizer: Hybrid Station at Detenice, okres Jicin.

Head round, well wrapped. Outer leaves fairly large, oval, smooth to slightly rugose, notched, bright green. Seed silver white.

Early variety. Suited for Summer field planting. Comes to bloom late.

7. Pruhony Red: Hybridized through individual selection from a native variety of the same name. Allowed as a hybridized variety in 1952. Hybridizer: Hybrid Station at Stupice, okres Ricany.

Head large, round, yellow green inside, with Autumn planting it is firm, closed, and has a more delicate flavor than with Spring planting when it is less tightly wrapped. Outer leaves oval, extensively rugose, brown-red with dull waxy glint.

Suited for Autumn field planting for wintering over, and also for Spring planting (when, however, the head is less well wrapped). Comes to bloom late.

Varieties of Winter Lettuce

8. Altenburg: Hybridized through individual selection from an acclimatized variety of a world-wide assortment.

Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Head round to slightly flatly round, fairly firm, semi-closed, light green with yellow tint, inside reddish. Outer leaves fairly large, broadly oval to lightly kidney-shaped, little undulant, rather bubbly, lightly notched, light green with dull yellowish gleam. Seed white, Winters well.

Spinach

(Spinacia oleracea L.)

During 1956-57 there were allowed five varieties of spinach.

1. Juliana: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Lysa n. L.-Litoli, okres Nymburk.

Leaves relatively small, broad to fairly broad, oval to pointedly oval, firm, extensively bubbled, weakly lobed; Placement flat, so that the leaf becomes dirty easily when it rains, and washes with difficulty, dark green to blue-green, shiny. Petiole very short (1 - 2 cm). Leaf rosette 20 - 25 cm in diameter. For Spring sowing.

2. Matador: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Libochovice, okres Lovosice.

Leaves large, fairly broad, oval with rolled up tip, slightly lobed weakly, slightly bubbled, semi-erect. Petiole fairly long. Young cordate leaves elongated, ppinted, which points are slightly turned in. Diameter of the leaf rosette 40 - 50 cm. For autumn an spring seeding. Reisits frost well. Comes to bloom late.

3. 'Universal': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed in 1941, as a strain variety, in 1952 as a hybridized variety. Hybridizer: Hybrid Station at Celechovice na Hane, okres Prostejov.

Leaves fairly large to large, quite broad, pointedly oval, lobed, slightly bubbly, semi-erect, green, slightly shiny, petiole semi-long to short. Diameter of the leaf rosette 35 - 45 cm. For autumn seeding and wintering, or for spring seeding.

4. 'Victoria': Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed in 1941 as a strain variety, in 1952 as a hybridized variety. Hybridizer: Hybrid Station at Kastice, okres Podborany.

Leaves fairly large, oval, later pointedly oval, weakly, later strongly lobed, slightly undulant, placement flat, dark green, shiny; petiole short. Diameter of leaf rosette 30 cm. Suited for spring sowing, although also for autumn sowing with wintering.

5. Viroflay: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1941, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Vrbicany, okres Lovosice.

Leaves large, fairly broad to quite broad, pointedly oval, lobed, little bubbled, bright green, palely shiny. Young leaves erect, later flatly placed. Rather long petiole. Diameter of the leaf rosette 40 - 45 cm.

Suited for wintering, but also for early spring sowing. When sown in the spring it comes rapidly to bloom.

Pumpkin

(Cucurbita pepo L.)

1. Veltrusi Giant: Hybridized by the Hybrid Station at Stupice through individual selection from the pumpkin 'Giant Melon-like Yellow'. Allowed in 1952. Present hybridizer: Hybrid Station at Veltrusi, okres Kralupy n. Vlt.

Plant with impressive growth with creeping, extensively branched stem. Stem strong, angular, downy. Leaves large, rounded or shallowly digitally lobed, light green, undulant, very hairy on the surface. Leaf stalk long, strong. Flower large, golden yellow.

Fruit large (diameter up to 60 cm, and height 35 cm), attaining a weight of 45 kg, round to roundly flattened. Skin greenish yellow, when ripe light orange, smooth or sparsely netted. Flesh orange yellow, stiff, juicy. Seed white.

Growing time 90 - 95 days. Suitable for the canning industry, or for home made preserves etc. It is also good juicy fodder for milk cattle and pigs.

Cabbage

(Brassica oleracea var. capitata L.)

During 1956-57 there were allowed in all eleven varieties of cabbage, divided in our descriptions into five grounps, namely: a) early varieties --three varieties, b) semi-early -- one variety, c) semi-late -- two varieties, d)winter chopping /kruhrenske/ two varieties, and e) winter storage -- three varieties.

The period of maturity of the varieties is classified as follows: 1. early (with growing time under 125 days), 2. semi-early (125 - 140 days), 3. semi-late (141 - 160 days), 4. late (above 160 days)

Varieties of early cabbage

1. Early Red Hago: Hyrbidized through individual selection

from an acclimatized Danish Haco variety. Allowed as a strain variety in 1946, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Kastice, okres Podborany.

Head fairly large, almost round, very firm. violet red, inside dark red. Outer leaves round, violet red with strong bluish waxy tint. Nerves fine. Leafage small. Stump semi-high. Semi-early to early variety.

2. Ditmar Early: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1946, as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Kvetoslavovo, okres Samorin.

Head round, firm, well wrapped, pale yellow. Outer leaves round smooth, bright green with rat er light to white and quite conspicuous ribs. Small leafage, stump low to fairly high. rather weak. Early variety.

3. Copenhagen Early Market: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1950, as a hybridized variety in 1956. Present hybridizer: Hybrid Station at Doksany, okres Roudnice n. L.

Head round to slightly roundly flattened, fairly large, firmly wrapped. Outer leaves fairly large, broadly oval, smooth, bright green, finely ribbed, with lighter green to white nerves. Stump low to fairly high, very shallowly extending into the head. Early variety.

Semi-Early varieties.

4. Glory of Holland: Hybridized through selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1946, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Svamberk, okres Trebon.

Head large, round to lightly roundly flattened, well wrapped, ~~xxxxxxx~~ weakly ribbed, light yellow green. Outer leaves round, smooth, deep green with conspicuous light green to white nerving. Stump rather low, rather weak. Semi-early variety.

Semi-late varieties

5. Dobra Voda Semi-late: Hybridized by J. Pour at Dobra Voda through individual selection from a native Hradec Kralove variety. Allowed in 1939. Present hybridizer: Hybrid Station at Dobra Voda, okres Horice v Podkrkonosi.

Head fairly large, round, well wrapped, weakly ribbed, bright green. Outer leaves moderately developed, green with delicate nerves. Stump low, enters only shallowly into the head. Semi-late variety.

6. Klokoty: Hybridized by the former Agricultural Research Station at Tabor through selection from a native variety long cultivated at Klakoty u Tabora. Allowed in 1952. Present hybridizer: Hybrid Station at Cerveny Dvor u Mesic, okres Tabor.

Head round to flatly round, firmly wrapped, light green. Outer leaves round, undulantly distorted, bright green. Stump low. Semi-late variety.

Varieties of Winter Chopping Cabbage.

7. Dobra Voda Late: Hybridized by J. Pour at Dobra Voda through individual selection from a native variety from Bolehost' cultivated in the Hradec Kralove region. Allowed in 1939. Present hybridizer: Hybrid Station at Dobra Voda, okres Horice v Podkrkonosi.

Head large, round, very firm. well wrapped, green, at the crown purplish. Outer leaves quite big, broadly elliptical, dark blue-green with characteristic purplish ribs. Stump fairly high, penetrates shallowly into the head. Late variety.

8. Krimice: Hybridized by Prof. M. Karel at Plzen through individual selection from a native variety cultivated in the neighbourhood of Krmice. Allowed as a hybridized variety in 1952. Present hybridizer: Hybrid Station at Luzany, okres Prestice.

Egg-shaped head, rounded at the base, at the crown narrowing. Outer leaves large, rather strong, ribbed, notched, dark green, bluish pruinosity, with whitish ribs. Leaves inside head less tightly wrapped. Stump rather high. Late variety.

Varieties of Winter Storage Cabbage.

9. Amerger Low: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed as a strain variety in 1946, as a hybridized variety in 1952. Hybridizer: Hybrid Station at Dobrenice, okres Hradec Kralove.

Head fairly large, flatly round, very firmly wrapped, weakly ribbed, bright green, whitish when completely ripe, very pruinose. Outer leaves vessel-like, smooth, deep grey green with conspicuous nerves. Stump semi-high, rather strong, extending rather deeply into the head. Late variety.

10. Langedij White: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed in 1946 as a strain variety, in 1952 as a hybridized variety. Hybridizer: Hybrid Station at Slapy, okres Tabora.

Head rather small, round to obovoid, lightly flattened at the crown, firmly wrapped, dull green. Outer leaves broadly spade-shaped, spreading, grey-green with silver tint. Stump high, strong, penetrates quite deeply into the head. Late variety.

11. Langedij Red: Hybridized through individual selection from an acclimatized variety of a world-wide assortment. Allowed in 1946 as a strain variety, in 1952 as a hybridized variety. Hybridizer: Beet-Growers' Research Institute CSAZV at Semcice, okres Mlada Boleslav.

Head fairly large, round, firmly wrapped, violet red. Outer leaves broadly spade-shaped, smooth, slightly undulant, dark red. Late variety.

MEDICINAL PLANTS

During 1956-57 there were allowed in all thirty-four varieties of thirty-five different kinds of medicinal and aromatic plants.

These are all native varieties obtained from their local or foreign original cultivators, or else raised from material collected from plants growing wild in the different Czechoslovak krajs. The varieties of foreign origin are specified as such in the descriptions; where the place of origin is not mentioned, the origin is understood to be Czechoslovak.

All these native varieties were obtained or raised by the Chief Variety Testing Centers UKZUZ (formerly the Dept. of Medicinal Plants of the Agricultural Research Institutes) at Prague and Brno. Many of them were maintained by these Testing Centers for more than 30 years, and some of them are still being maintained. The majority of the others were transferred from them in 1955 for further maintainance and improvement at the Hybrid or Research Stations, or the Agricultural Research Institutes mentioned in the descriptions as 'present hybridizers'.

Angelroot

(Archangelica officinalis (Moench.) Hoffm.)

1. Greater Angelroot, native: Allowed in 1952. Present hybridizer: Oil-seed Research Station CSAZV at Opava.

Predominantly high plant (150 cm). Stem usually grey-brown with violet tint. Leaves large, one to three lobed, curled, light green; Leaves sharply serrate. Umbel fairly large to large (15 - 18 cm), about two thirds round; flowerlets white, pale reddish. Fruits large, egg-shaped, pressed in from the

the top, edged with a double margin/dvoukridlym okrajem/ whitish yellow. Root fairly large to large, has few members, whitish yellow is section.

Two-year palnt. Family: Ammiaceae (umbelate). Particularly suited for middling and rather light humus soils with sufficiency of sub-surface moisture. Does well even in mountain locations. The root is harvested, occasionally also the fruit and leaves.

Basil

(Ocinum basilicum L.)

1. Broad-leafed Native Basil: Allowed in 1952. Present hybridizer: Hybrid Station at Smrzice, okres Prostejov.

Plant predominantly high (up to 45 cm.), semi-erect, bushy, thickly foliate. Leaves fairly large (7 b 4 cm), broadly egg-shaped, with sharp ending, to broadly lanceolar, green.

2. Narrow-leafed Native Basil: Allowed in 1952. Present Hybridizer: Hybrid Station at Smrzice, okres Prostejov.

Plant predominantly high (up to 40 cm), semi-erect, bushy, moderately foliate. Leaves small, narrowly egg-shaped to lanceolar, light green.

Annual plant. Family: Urticaceae (labiate). Suited for rather light to moderately heavy and loose soils with sufficiently humus in sunny but not too dry locations. The herbage is harvested.

Holy Thistle

(Cnicus benedictus L.)

1. Native Holy Thistle: Allowed in 1952. Hybridizer: Chief Variety Testing Center UKZUZ at Prague and Brno.

Plant predominantly high (60 cm). Stem violet brown. Leaves large (30 by 10 cm), dentate, thorny edged, light green with nerves striped violet

Annual plant. Family: Asteraceae (synantherous). Suited for all soils, particularly for slightly moist soils in sunny locations. Herbage harvested.

Black Henbane

(Hyoscyamus niger L.)

1. Native Black Henbane: Allowed in 1952. Hybridizer: Chief Variety Testing Centers at Prague and Brno.

Plant predominantly high (up to 1 m), thickly foliate. Leaves large, broadly egg-shaped, coarsely and deeply cleft, grey-green, thickly downy. Blossom grey-yellow, with thick grey-violat veining. Seed dull dark grey, broadly kidney-shaped.

Annual plant. Family: Solanaceae. Particularly suited for moderately heavy to rather light soils with sufficiency of nutrients and sub-soil moisture in sunny locations. Leaves ar harvested.

Great Mullein

(Verbascum thapsiforme Schrad.)

1. Native Great Mullein: Allowed in 1952. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyné u Prahy.

Plant predominantly high (150 cm). Stem mostly grey-green. Leaves large, broadly egg-shaped running into a point, near the stem broadly straight, yellow green, extensively fuzzy. Inflorescence long and cluster-like, rich; blossoms large, up to 5 cm in diameter, deep yellow.

Two-year plant. Family: Scrophulariaceae. Suited for rather light soils in sunny locations or in well drained plots. Flowers are harvested.

Datura

(Datura L.)

1. Indian Metel Datura, native (Datura metel L.): Native vatiety of Portuguese origin. Allowed in 1952. Hybridizer:

Chief Variety Testing Centers UKZUZ at Prague and Brno.

Fairly high to high plant (50 - 70 cm), moderately foliate. Lower leaves fairly large, broadly ovoid, in part somewhat widely /chobotnate/ cleft, entire, grey-green with somewhat lighter central nerve. Blossom: Trumpet-like corona white, calyx light green. Capsule mostly round to ovoid, thickly thorny, dark green, inclined towards the ground. Seed dull grey-brown, broadly kidney-shaped.

2. Common Native Durman (Datura stramonium L.) : Allowed in 1952. Hybridizer: Chief Variety Testing Centers UKZUZ at Prague and Brno.

The plant is most often high (80 cm), thickly foliate. Lower leaves large, widely cleft, entire, green with greenish yellow central nerve. Blossom: Trumpet-like corona cream-like yellow white, calyx light green. Capsule ovoid, thickly thorny, dark green.

Annual plant. Family: Solanaceae. Poisonous. Both varieties are suited for fairly heavy soils, warm, with sufficient humus and alkalic reaction in sunny and protected locations. With the Indian Datura the root, leaves and seed are harvested; with Common Durman the leaves and seed are harvested.

Thyme

(Thymus vulgaris L.)

1. Native Thyme : Allowed in 1952. Hybridizer: Chief Variety Testing Centers UKZUZ at Prague and Brno.

Fairly high plant (25 - 39 cm), bushy, moderately foliate. Leaves tiny, mostly broadly lanceolar to ovate. Stem violet brown-grey, downy. Blossoms different tints of light reddish, stamens violet.

Perrenial palnt. Family: Urticaceae (labiate). Suited for rather light soils with lime and subsurface moisture in sunny locations. The herbage is harvested.

German Camomile

(Matricaria chamomilla L.)

1. Native German Camomile: Allowed in 1952. Present Hybridizer: Oilseed Research Station CSAZV at Opava.

Plant predominantly up to 80 cm high, remarkably branched sparsely foliate. Leaves dark green with net-like sections. Blossoms abundant, fairly large, lingui-form, white, inner flowerlets trumpet-shaped, yellow. Seed mostly round to truncated pyramidal, hollow section. Clean, strong, typical camomile odor.

Annual plant. Family: Asteraceae (synantherous). Suited for fairly heavy, humus, and sufficiently moist soils, properly bedded, in sunny locations. The blossoms are harvested.

Yellow Gentian

(Gentiana Lutea L.)

1. Yellow Gentian, native: Allowed in 1952. Hybridizer: Chief Variety Testing Centers UKZUZ at Prague and Brno.

Plant when in bloom mostly high (1.5 m). Number of direct stems middling. Leaves broadly elliptical, light green; lower leaves have short petioles, upper leaves sessile. Blossom cluster large, flowerlets yellow, grouped annularly around the stem in the leaf channels. Blooms for the first time in the fifth to sixth year.

White Hoarhound

(Marrubium vulgare L)

1. Czech Native White Hoarhound: Allowed in 1952. Present hybridizer: Plant Porducts Research Institute CSAZV at Ruzyne u Prahy.

High plant (70 cm), moderately foliate, mostly spreading. Leaves fairly large (4 by 3 cm), broadly ovate to cardate,

notched, grey green. Inflorescence annular, thick; blossoms white.

2. Moravian Native White Hoarhound: Allowed in 1952. Present hybridizer: Research Institute for the Grass-Field system CSAZV at Pohorelice.

High plant (65 - 75 cm), moderately to thickly foliate, spreading. Leaves fairly large, broadly ovate to cordate, notched, dark green. Inflorescence annular, fairly thick; flowerlets white.

Perennial plant. Family: Urticaceae (labiate). Smells like apples. Both varieties suited for rather light to fairly heavy soils in sunny and rather dry locations. Tolerates even poor and stony soils. Herbage is harvested.

Ribwort Plantain

(Plantago lancelata L.)

1. Czech Native Lanceolar Ribwort: Allowed in 1952. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyne u Prahy.

Plant fairly high. Leaves mostly fairly long to long (30 - 35 cm), fairly broad (3.5 cm), lanceolar, dark green. Head fairly long to long, cylindrical to shell-like. Blossom tiny, dirty white.

2. Moravian Native Lanceolar Ribwort: Allowed in 1952. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyne u Prahy.

Plant fairly high. Leaves long (35 - 38 cm), fairly broad ro broad (3.5 - 5 cm), elongated lanceolar. Head short, cylindrical, whitish-yellow.

Plant lasts for several years. Family: Plantaginaceae. Both varieties are particularly suited for fairly heavy and rather rich soils in in rather moist and somewhat rude locations. the leaves are harvested.

Medicinal Goat's Rue

(Galega officinalis L.)

1. Native Medicinal Goat's Rue: Allowed in 1952. Present hybridizer: Oil seed Research Station CSAZV at Opava.

Plant up to 120 cm High. Stalk vertically grooved, not branched, light green. Leaves fairly large, elliptic to lanceolar, alternately curled/lichosperene/, light green. Flowerlets pale blue-violet colored. Pods thin, scratched, erect.

Perrenial plant. Family: Fabaceae (viciate, papilionaceous). Suited for rather deep warm soils with sufficient sub-surface moisture in warm protected locations. The herbage is harvested.

Cat's Valerian

(Valeriana officinalis L.)

1. Native Broadleafed Cats Valerian: Allowed in 1941. Hybridizer: Chief Variety Testing Centers UKZUZ at Prague and Brno.

High plant (90 cm). Stem vertically grooved, green with brown coloring. Leaves large, leaflets broadly ovate, coarsely and sharply notched, light green. Flower whitish red. Root fairly long, rather strong, fairly thick.

2. Native Narrowleafed Cats Valerian: Allowed in 1941. Hybridizer: Chief Variety Testing Center UKZUZ at Prague and Brno.

High to fairly high plant (80 - 90 cm). Leaves fairly large, leaflets narrowly lanceolar. coarsely and sharply notched, dark green. Flower whitish red. Roots fairly long, fine, thick.

Perrenial plant. Family: Valerianaceae. Both varieties are particularly suited for fairly heavy to rather light, rather moist, humus soils; they tolerate even a harsh climate. The roots are harvested.

Licorice

(Glycyrrhiza glabra L.)

1. Smooth-fruited Native Licorice: Allowed in 1952. Present hybridizer: Research Institute for the Grass Field System CSAZV at Pohorelice, okres Zidlochovice.

Predominantly high plant (130 cm). Stalk fairly strong to strong (10 - 15 mm), thickly branched, yellow-green. Leaves fairly large, ovate to elliptical, curled, yellow-green, hairless. Flowerlets pale pruplish. Exceptionally it forms leathery pods with 3 - 5 seeds.

Perennial plant forming bush. Family: Fabaceae (viciate, papilionaceous). Particularly suited for middling to light clayish soils in rather low, sunny and protected locations. The root is harvested (sweet wood).

Spike Lavender

(Lavandula spica L.)

1. Native Spike Lavender: Allowed in 1952. Present hybridizer: Research Institute for the Grass Field System CSAZV at Pohorelice, okres Zidlochovice.

High plant (50 cm), forming semi-spreading, thickly foliate bush. Leaves broadly linear, entire, green-grey. Spike mostly long, rather sparse; flowerlets light blue-purplish.

Perennial plant. Family: Urticaceae (labiate). Suited ofr rather light to fairly heavy soils with suf iciency of lime in warm sunny locations. The flowers are harvested, occasionally also the herbage.

Lovage

(Levisticum officinalis Koch.)

1. Native Medicinal Lovage: Allowed in 1941. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyne u Prahy.

High plant (180 cm). Stem grooved, green with pale brown coloring, pruinose. Leaves fairly large to large, dark green, dully shiny. Umbels fairly large to rather small, flowerlets yellowish. Fruits fairly large, oval, pressed in at the ridge, vertically ribbed, double-edged. Root fairly strong, long, notably articulated, yellow-brown.

Perennial plant. Family: Ammiaceae (umbelate). Suited for deep, fairly heavy soils with sufficient moisture in mountain locations. The root and leaves are harvested.

Mint

(Mentha L,)

1. Native Rugose Mint (Mentha spicata var. crispata Schrad.). Native variety of German origin. Allowed in 1941. Present Hybridizer: Plant Produce Research Institute CSAZV at Ruzyne u Prahy.

Fairly high plant (40 - 50 cm), thickly foliate. Stem green with brown tint. Leaves predominantly cordo-ovate, coarsely rugose, green. Spik-like inflorescence elongated cylindrical, flowerlets white with purplish tint. Strong cummin odor.

Perennial plant. Family: Urticaceae (labiate). Suited for light to fairly heavy humus soils with sufficient moisture in warm protected locations. It tolerates partial shading. The herbage or leaves are harvested.

2. Peppermint, Native (Mentha piperita L.): Allowed in 1941. Present hybridizer: Research Institute for the Grass Field System at Pohorelice, okres Zidlochovice.

Fairly high plant (40 - 45 cm), thickly foliate. Stem brown violet. Leaves cordo-ovate, green-blue-violet. Spike-like inflorescence elongated cylindrical, flowerlets whitish red with blue-violet tint. Deep mint smell.

Perennial plant. Family: Urticaceae (labiate). Suited for middling to heavy humus soils with sufficient sub-surface moisture in warm protected locations. Tolerates also partial shading, it is sensitive to frosts during which it often freezes. As a protection against frosts it is sometimes covered with straw manure or leaves. The leaves or herbage is harvested.

Garden Balm

(Melissa officinalis L.)

1. Native Lemon Balm: Native variety of French origin. Allowed in 1941. Present hybridizer: Oil seed Research Station CSAZV at Opava.

Plant fairly high to high (50 - 70 cm), moderately to thickly foliate, during the first year semi-spreading, during later years mostly erect. Stem grey-green. Leaves fairly large to large, mostly ovate, notched, light green. Flowers white with blue tint.

Perennial plant. Family: Urticaceae (labiate). Suited for fairly heavy to quite heavy soils, clayish, rich with nutrients in sunny locations, although it also thrives in rather dry sandy soils. The herbage is harvested.

Mexican Tea

(Chenopodium ambrosioides L.)

1. Native Mexican Tea: Native variety of German origin. Allowed in 1952. Present hybridizer: Oil seed Research Station CSAZV at Opava.

Plant mostly high (90 - 100 cm), thickly foliate. Stalk moderately branched, green-red-brown. Leaves fairly large, oblong, lanceolar; upper leaves entire, others dentately divided, dark green. Flower panicle forked, thick; flowers dirty whitish green.

Annual plant. Family: Chenopodiaceae. Particularly suited for rather heavy permeable soils with sufficiency of nutrients in rather warm locations, although it will tolerate rather rude locations also. The herbage is harvested.

Marigold

(Calendula officinalis L.)

1. Native Full-blossomed Orange Marigold: Allowed in 1941. Present hybridizer: Oil-seed Research Station CSAZV at Opava.

Fairly high to high plant (40 - 60 cm). The lower leaves are spatulate, light green. Inflorescences abundant, full, large (7 - 8 cm); outer part of the flowers dark, inner part lighter orange.

Annual plant. Family: Asteraceae (synantherous). Suited for various soils in rather warm, sunny locations. The flowers are harvested.

Bouncing Bet

(Saponaria officinalis L.)

1. Native Bouncing Bet: Allowed in 1952. Hybridizer: Chief Variety Testing Centers UKZUZ at Prague and Brno.

Fairly high to high plant (45 - 65 cm). Stem green-violet. Leaves mostly broadly lanceolar to oval, dark green. Flower clusters large, crowded, flowers large, light reddish. Root long, strong, little articulated.

Perennial plant. Family: Silenaceae. Suited for rather lighter to ~~middling~~ fairly heavy soils with sufficient moisture. It is possible to cultivate it even on non-used land. The root is harvested.

Fox-glove

(Digitalis L.)

1. Red Native Fox-glove (Digitalis purpurea L.): Allowed in 1941. Present hybridizer: Hybrid Station at Rokytnice v Orlickych Horach, okres Zamberk.

When in blossom the plant is fairly high to high (100 - 150 cm), thickly foliate. Stem dark green with brown tint. Outer ground leaves fairly large to large, broadly lanceolar, bluntly and shallowly dentate, dark green. Flower violet reddish, with dark brown stain, tiny spots, and white edge inside.

2. Native Woolly Fox-glove(Digitalis lanata Ehrh.): Allowed in 1941. Present hybridizer: Hybrid Station at Rokytnice v Orlickych Horach, okres Zamberk.

The plant is most often fairly high (90 cm), thickly foliate. Stem dark green with strong brownish tint. Outer ground leaves fairly large to large, broadly lanceolar, entire, dark green. Flower white, with brown-yellow stains and thick grate-like veining inside.

Two-year plant. Family: Scrophulariaceae. Poisonous. Both varieties are suited for soils rich with forest humus and moisture in lowlands and foothill locations which are protected. The leaves are harvested.

Elecampane

(Inula helenium L.)

1. Native Elecampane: Native variety of French origin. Allowed in 1952. Present hybridizer: Oil-seed Research Station CSAZV at Opava.

Plant most often high (150 cm). Outer leaves of the ground rosette are broadly elliptical with blunt tip in the first year, later leaves in the second year are long and narrowly cordate close to the stem, semi-erect. Inflorescence sparsely branched, concentrated at the apex; flowers large, yellow. Root in the second year fairly long to long, strong, sparsely branched.

Perennial plant. Family: Asteraceae (synantherous). Suited particularly for light to fairly heavy and loose soils with sufficient moisture in rather warm locations. The root is harvested.

Artemesia

(Artemesia L.)

1. Brotan Artemesia (Artemesia abrotanum L.); Native Brotan: Allowed in 1952. Present hybridizer: Research Institute for the Grass Field System CSAZV at Pohorelice, okres Zidlochovice.

Predominantly high plant (up to 65 cm). Leaves fairly large, thickly curled, ovate with linear sections, green-silver-grey, dull; inflorescence long cluster-shaped, flowers yellow.

Perenial plant. Family: Asteraceae (synantherous). Suited for rather dry, humus, and permeable soils in sunny, protected locations. The herbage is harvested.

2. Native Pontic Artemesia (Artemesia pontica L.): Allowed in 1952. Present hybridizer: Hybrid Station at Rokytnice v Orlickych Horach, okres Zamberk.

Fairly high plant (45 - 50 cm), thickly foliate. Stems weak, straight, green-grey, felt-like. Lower leaves mostly fairly large, broadly ovate, thickly pinnate, silver-grey, dull, underneath felt-like. Inflorescence long and narrowly cluster-like, flowers deep yellow.

Perenial plant. Family: Asteraceae (synantherous). Suited for all soils with sufficient lime in dry locations. It is possible to raise it even in non-leveled unused plots. The herbage is harvested.

3. [illegible] (Artemesia absinthium L.): Allowed in 1952. Present hybridizer: Hybrid Station at Rokytnice v Orlickych Horach, okres Zamberk.

High plant (120 cm), exensively branched, moderately to thickly foliate. Lower leaves large, round, rather less pinnate, silver grey, dull, felt-like. Inflorescence cluster-like, rather thin, flowers light yellow.

Perenial plant. Family: Asteraceae (synantherous). Suited for all soils with lime and sufficient sub-surface moisture in rather warm and sunny locations. The herbage is harvested.

4. Tarragon tenesia (Artemesia drancunculus L.): Russian Estragon, native: Allowed in 1941. Present hybridizer: Research Institute for the Grass Field System CSAZV at Pohorelice, okres Zidlochovice.

Plant most often 140 cm high. Stem yellow-green. Leaves fairly long (up to 8 cm), narrowly lanceolar, dark green. Panicle broadly ovate, inflorescence thinly clusterlike; flowers dirty whitish yellow.

Perenial plant. Family: Asteraceae (synantherous). Suited particularly for middling to heavy soils with sufficient moisture. It may be cultivated even on quite inclined slopes, and unused though clean plots.

Fenugreek

(Trigonella foenum-graecum L.)

1. Native Fenugreek: Allowed in 1952. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyne u Prahy.

High plant (50 cm). Stalk green, branching straight, fairly thick. Leaves fairly large, petiolate, obovate to oblong, lanceolar, curled, green; stipules large, pointed, softly hairy. Flowers whitish yellow. Pods long, thin, many-seeded. Seed small to fairly large (length 3.5 - 5 mm, breadth 2.5 - 4 mm), shortly to rather longly prismatic, irregularly flattened with rough, transverse groove, bright yellow brown; absolute weight 16.7 ÷ 17.7 g.

Annual plant. Family: Fabaceae (viciate, papilionaceous). Suited for rather light soils with sufficient lime and sub-surface moisture in sunny, protected locations. Seed is harvested.

Siberian Knotgrass

(Fagopyrum tataricum (L.) Gaertn.)

Native Siberian Knotgrass: Allowed in 1952. Present hybridizer: Oilseed Research Station CSAZV at Opava.

Fairly high plant (45-50 cm), thickly foliate. Stem weak, green. Leaves shot-shaped xxxx tending to cordate, yellow green. Flowers small, greenish.

Annual plant. Family: Polygonaceae. Suited for light soils with a rather small content of nutrients. Does well in slightly acid soils. Does not tolerate lime soils. Quite demanding for moisture and warmth. The herbage is harvested befors blooming, and is dried at 80 - 100° C.

Marshmallow

(Althea officinalis L.)

1. Czech Marshmallow, native: Allowed in 1952. Present hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Fairly high plant (up to 150 cm). Stem yellow green. Leaves fairly large, digital, with rough dentate sections, light green. Flowers 4 - 4.5 cm in diameter, white with reddish-violet tint. Root long, fairly strong, yellow brown, white in section.

2. Moravian Marshmallow, native: Allowed in 1952. Present hybridizer: Hybrid Station at Horni Mostenice, okres Prerov.

Fairly high plant (up to 150 cm). Stem yellow green. Leaves fairly large, digital, with roughly dentate and sharp sections, light grey-green. Flowers 4 - 4.5 cm in diameter, white with reddish-violet tint. Root long, fairly strong, yellow brown, white in section.

Hollyhock

(Althea rosea var. nigra (L.) Cav.)

1. Black Hollyhock, native: Allowed in 1941. Present hybridizer: Research Institute for the Grass Field System at Pohorelice, okres Zidlochovice.

Two-year and perennial plant. Family: Mulvaceae. Suited for fairly heavy to heavy soils with sufficiency of humus and sub-surface moisture in warm, protected lobations. The flowers are harvested.

European Agrimony

(Agrimonia eupatoria L.)

1. Agrimonia, native: Allowed in 1952. Hybridizer: Chief Variety Testing Centers at Prague and Brno.

High plant (100 cm), thickly foliate. Stem grey-green with brown tint, felt-like. Leaves broadly ovate; leaflets broadly elliptical, serrately notched, light grey-green, felt-like underneath. Flower spikes long, below thinly, above thickly set with yellow flowers.

Perennial plant. Family: Rosaceae. Particularly suited for fairly heavy and rather light soils. The herbage is harvested.

Garden Savory

(Satureja hortensis L.)

1. Annual Savory, native: Allowed in 1941. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyne u Prahy.

High plant (60 cm), moderately to thickly foliate. Stem green-violet. Leaves linearly lanceolar, entire, grey dark green. Flowers reddish with purple tint.

Annual plant. Family: Urticaceae (labiate). Suited for rather light and fairly heavy soils with sufficient nutrients in rather warm and protected locations. The herbage is harvested.

2. Perennial Savory, native: Native variety of German origin. Allowed in 1941. Present hybridizer: Plant Products Research Institute CSAZV at Ruzyne u Prahy.

Fairly high plant (40 - 50 cm), thickly foliate. Stem grey-green. Leaves narrowly lanceolar, light green. Spike

crowded, flowerlets white. Family: Urticaceae (labiate). Perennial plant forming bush. Particularly suited for fairly heavy soils with sufficiency oh humus and sub-surface moisture. The herbage is harvested.

Wood Mallow

(Malva silvestris, ssp. mauritiana (L.) A,Gr.)

1. Wood Mallow, native: Allowed in 1952. Present hybridizer: Oil-seed Research Station CSAZV at Opava.

Fairly high to high plant (80 - 120 cm). Stem darkly yellow-green. Leaves fairly large, roundly cordate, dark green. Flowers large (7 cm), abundant, light violet with rather dark lines.

Salvia

(Salvia officinalis L.)

1. Salvia, native: Allowed in 1952. Present hybridizer: Hybrid Station at Smrzice, okres Prostejov.

High plant (60 cm), thickly foliate. Leaves broadly lanceolar, grey green, felt-like. Branched spike fairly rich, flowers dark violet.

Perennial plant forming bush. Family: Urticaceae (labiate). Suited for lighter soils in warm sunny locations. The herbage or leaves are harvested.