VLASYUK, F. A.

3976 AEC-tr-2435((Pt. 4)(p.89-100))
THE EFFECT OF NUCLEAR RADIATIONS ON PLANTS.
F. A. Vlasyuk. p.89-100 of CONFERENCE OF THE ACADEMY OF SCIENCES OF THE USSR ON THE PEACEFUL USES OF ATOMIC ENERGY, JULY 1-5, 1955. SESSION OF THE DIVISION OF BIOLOGICAL SCIENCE. (Translation). 12p.

This paper was originally abstracted from the Russian and appeared in Nuclear Science Abstracts as NSA 9-7618.

VLASYUK, I., kandidat sel'skokhozyaystvennykh nauk.

Utilization of virgin and waste lands in the Chinese People's Republic. Zemledelie 4 no.7:102-103 Jl '56. (MIRA 9:9)
(China--Agriculture)

VLASYUK, I. A.

SUN DA-CHEN [Sung Ta-ch'eng] (Peking); VLASYUK, I.A. (Moskva); KLYCHNIKOV, V.M. (Moskva); KHEY VAN-IUN [Hei Wang-yung] (Peking)

Soils of the "Druzhba" State Farm in the Chinese People's Republic [with summary in English]. Pochvovedenie no.1:26-36 Ja '57. (MLRA 10:5)
(China--Soils)

USSR/Soil Science - Genesis and Geography of Soils. J.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67879

Author : Sung Ta-ch'eng; Vlasyuk, I.A., Klychnikov, V.M., Hei Wang-iun

Inst : -

Title : The Soils of the "Druzhba" Goskhoz of the Chinese People's Republic.

Orig Pub : Pochvovedeniye, 1957, No 1, 26-36.

Abstract : The territory of the "Druzhba" goskhoz lies on the second terrace slope the bottom lands of the Sungari River. The ground water is at a depth of 1.5-3 to 5 meters, and on saline areas it is slightly mineralized -- up to 1.3 gram/liter of solid deposit. There is 550-600 mm. of precipitation yearly. On elevated areas there are chernozem-like soils; on wooded areas the soils are podsolized and leached. The humus content of the upper soil horizons reaches 11.5%; the reaction is neutral; of the absorbed bases Ca

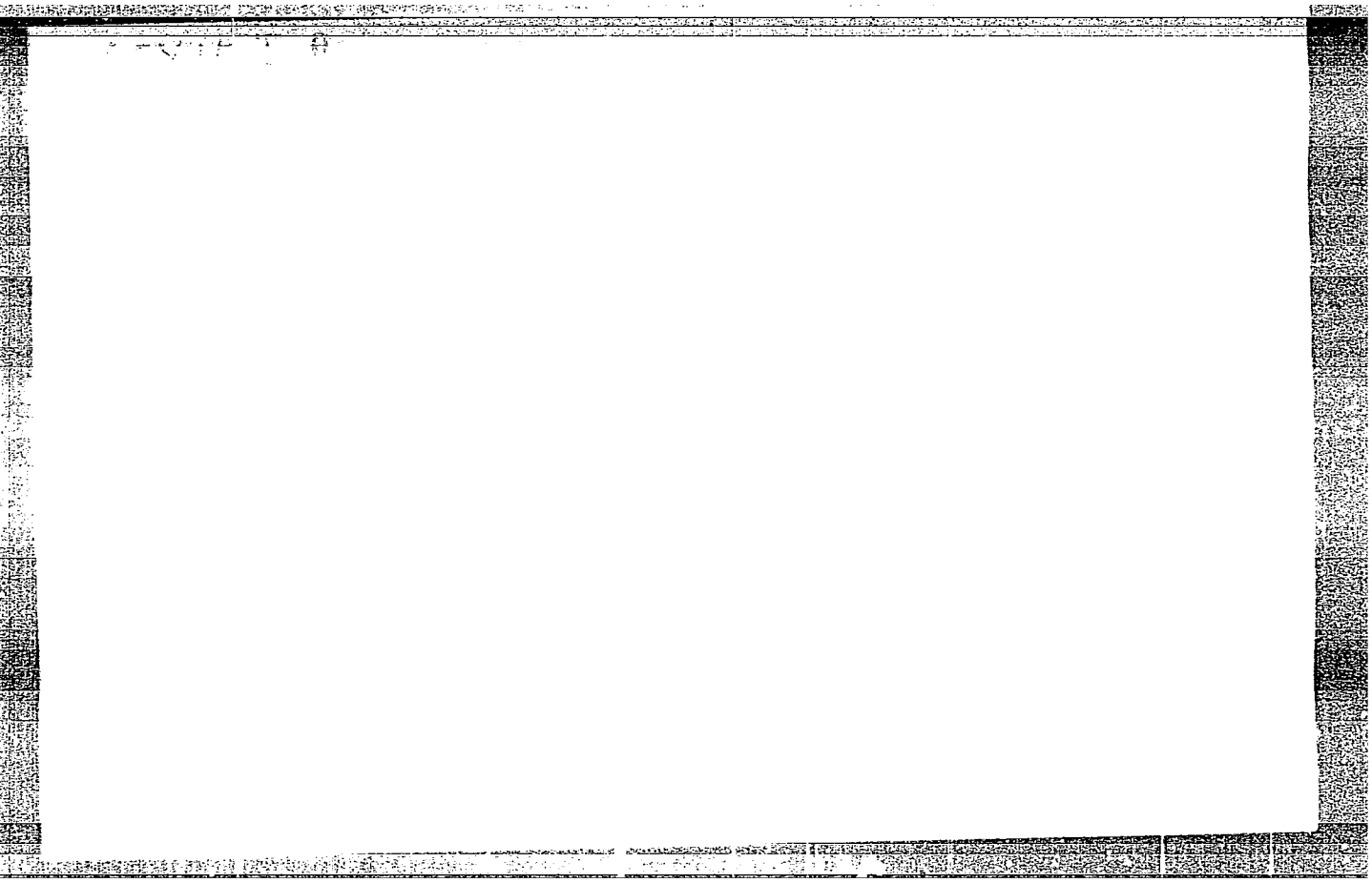
Card 1/2

USSR/Soil Science - Genesis and Geography of Soils. J.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67879

comprises more than 24 m. eq. per 100 grams of soil; the content of non-water-soluble aggregates is more than 70%. Consederable areas are also occupied by meadow-chernozem solonchak soils and also slightly marshy and marshy-meadow soils with the ground water level at 1.5-2 meters and the humus content -- ~ 6%. There are also meadow crusted-basaltic soda solonchaks with 0.2-0.5% of water-soluble salts. A schematic map of the soils is given. Several techniques for ameliorating swampy and saline areas are recommended. -- S.A. Nikitin.

Card 2/2

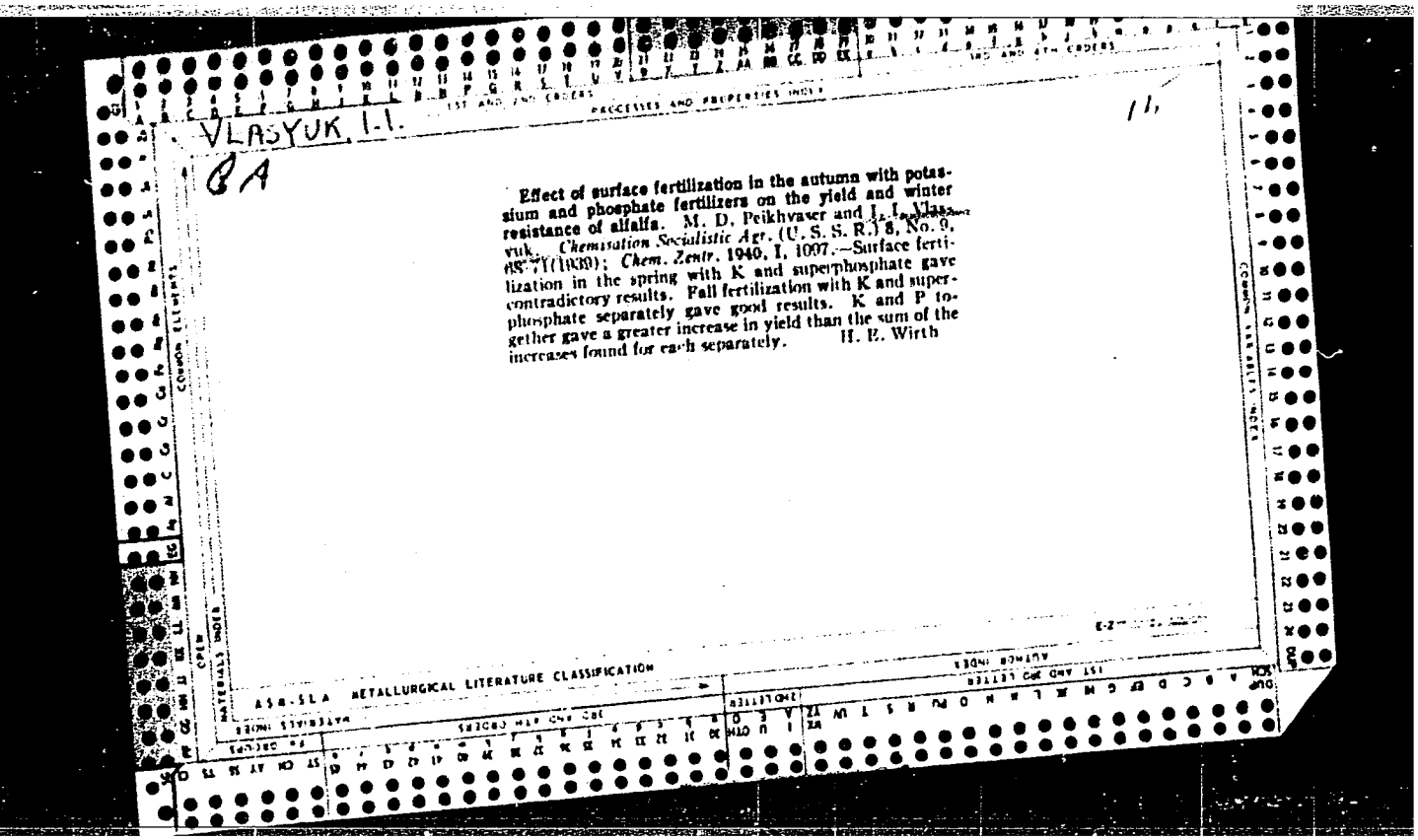


APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001860320003-8"

BREZHNEV, D.D., akad., red.; VLASYUK, I.A., akad., red.; GUSHCHIN, M.Yu., kand. sel'khoz. nauk, red.; YEVTUSHENKO, A.F., kand. sel'khoz. nauk, red.; KATAR'YAN, T.G., kand. biol. nauk, red.; KOLESNIKOV, V.A., doktor sel'khoz. nauk, red.; LAPIN, V.K., kand. biolog. nauk, red.; RYABOV, I.N., kand. sel'khoz. nauk, red.; ZHILYAKOVA, O., red. izd-va; GLIKMAN, N., red. izd-va; ISUPOVA, N., tekhn. red.

[Development of fruit culture and viticulture in the Crimea] Razvitie sadovodstva i vinogradarstva Kryma; trudy plenuma, provedennogo sovmestno s Ukrainskoi akad. sel'skokhoziaistvennykh nauk, 20-24 maia 1958 goda (Simferopol'). Pod obshchei red. D.D.Brezhneva i I.A.Vlasiuka. Simferopol', Krymizdat, 1959. 467 p. (MIRA 15:5)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina. Sektsiya sadovodstva, vinogradarstva i subtropicheskikh kul'tur.
(Crimea--Fruit culture) (Crimea--Viticulture)



VLASYUK, I. I.

BA

Effect of surface fertilization in the autumn with potassium and phosphate fertilizers on the yield and winter resistance of alfalfa. M. D. Peikhvaser and I. I. Vlasyuk. *Chemisation Socialistic Agr.* (U. S. S. R.) 8, No. 9, 48-71(1939); *Chem. Zentr.* 1940, I, 1007.—Surface fertilization in the spring with K and superphosphate gave contradictory results. Fall fertilization with K and superphosphate separately gave good results. K and P together gave a greater increase in yield than the sum of the increases found for each separately. H. E. Wirth

VLASYUK, I. I.

Millet

"Foxtail millet." Reviewed by B. F. Solov'yev. Korm. baza 3 No. 4, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

VLASYUK, K.Ya. (Voronezh); TRUSHIN, D.F. (Voronezh)

Mechanization of car unloading operations. Zhel. dor. transp. 46 no.10:65-66 O '64. (MIRA 17:11)

1. Zamestitel' nachal'nika Yugo-Vostochnoy dorogi (for Vlasyuk).
2. Nachal'nik gruzovoy sluzhby Yugo-Vostochnoy dorogi (for Trushin).

VLASYUK, L.

According to the laws of workers' honor. Mashinostroitel' no. 2:6 F'64. (MIRA 17:3)

USSR/Chemical Technology - Chemical Products and Their Applications, Mineral Salts. Oxides. Acids. Bases. I-6

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8787

Author : Kunin, T.I. and Vlasyuk, M.A.
Inst : Ivanovsk Chemical Engineering Institute
Title : Partial Pressure of Water Vapor Over Rongalite.

Orig Pub : Tr. Ivanovsk. khim.-tekhnol. in-ta, 1956, No 5, 97-102.

Abstract : Data on the partial pressure of water vapor over rongalite (R) are important for a clear understanding of the causes of the increased rate of decomposition of R in a moist atmosphere and for the production of an anhydrous product. The partial pressure of water vapor over R has been measured at 15-96°. At temperatures under 50° a differential tensometer was used in the measurements. At temperatures above 65° a method based on the determination of the boiling point of R was used. An approximate equation is given for the determination of the partial pressure of water vapor over R: log R 8.26 - 2125/T [sic].

Card 1/1

KUNIN, T.I.; VLASYUK, M.A.

Use of a vibrating mill for the production of rongalite. Izv.vys.-ucheb.zav.;khim.i khim.tekh. 4 no.4:636-638 '61. (MIRA 15:1)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra obshchey khimicheskoy tekhnologii.

(Sodium formaldehydesulfoxylate)

VLASYUK, N.V.

Overvoltage during electrolytic separation and solution of metals as a function of their physical properties. Ukr. khim. zhur. 29 no.8:828-839 '63. (MIRA 16:11)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DELIMARSKIY, Yu. K.; VLASYUK, N. V.

Polarization phenomena in melts on a solid electrode of the same metal. Ukr. khim. zhur. 28 no.6:688-692 '62. (MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Fused salts--Electric properties)

DELIMARSKIY, Yu.K.[Delimars'kyi, IU.K.], akademik; VLASYUK, N.V.[Vlasiuk,M.V.]

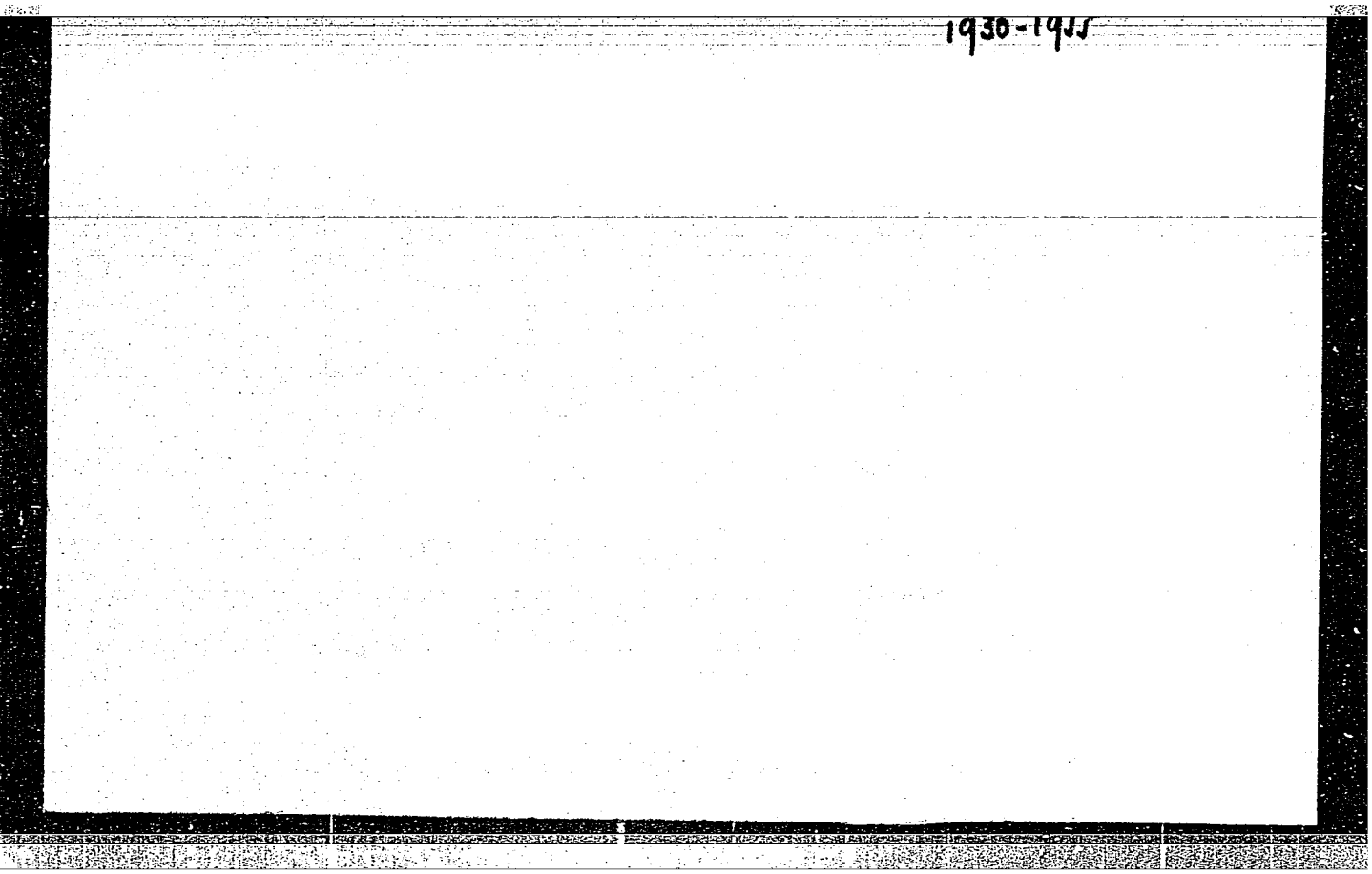
Relations between electrode polarization and the heat of fusion of metals [with summary in English]. Dop.AN URSR no.3:340-343 '61. (MIRA 14:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR. 2. AN USSR (for Delimarskiy).
(Electrolysis) (Melting points)

VLASYUK, P.A.

Effect of manganized nitrogen-phosphorous-potassium fertilizers on the yield and quality of farm produce. Zemljiste biljka 11 no.1/3: 317-321 '62

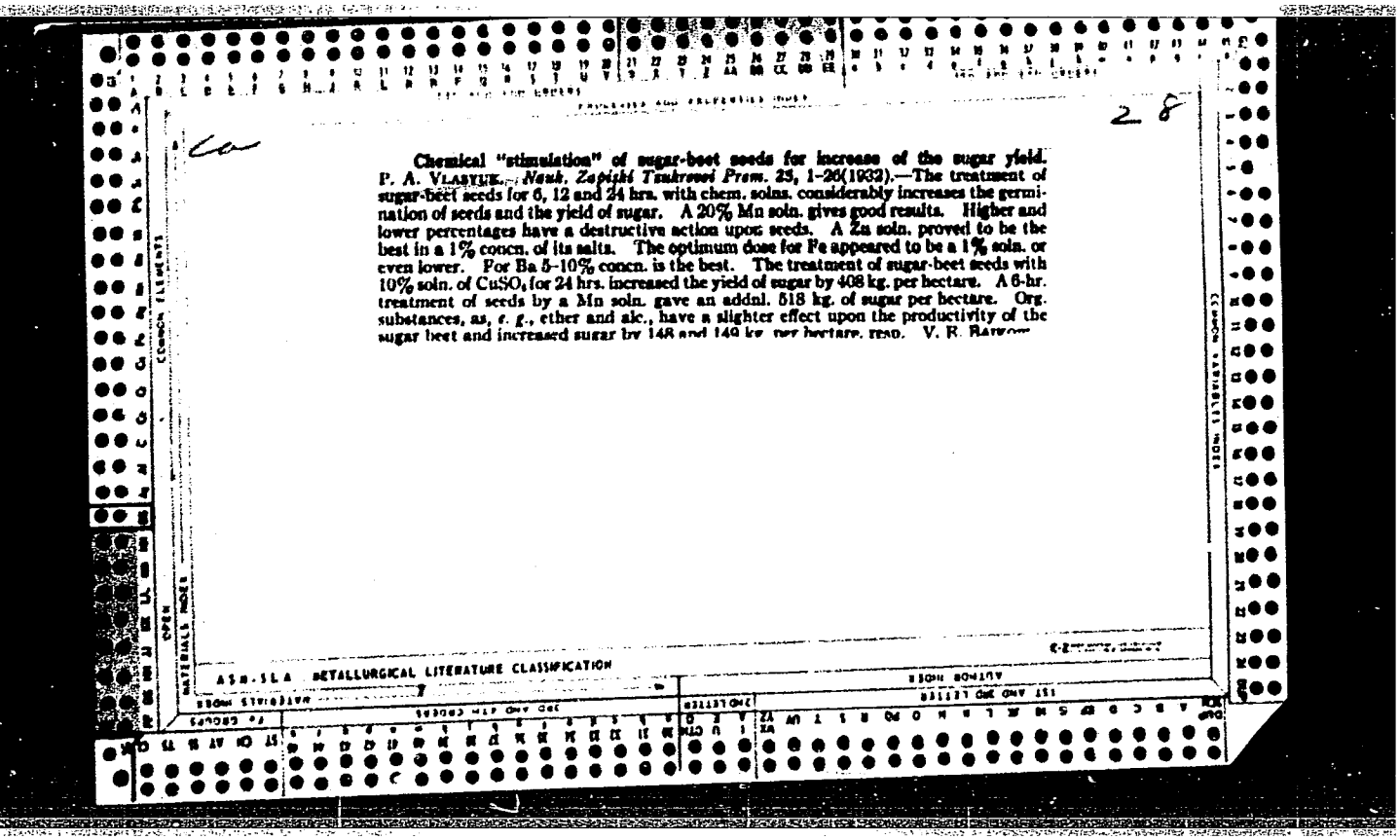
1. Nauchno-issledovatel'skiy institut fiziologii rasteniy Ukrainskoy akademii sel'skokhozyaystvennykh nauk, g. Kiyev.



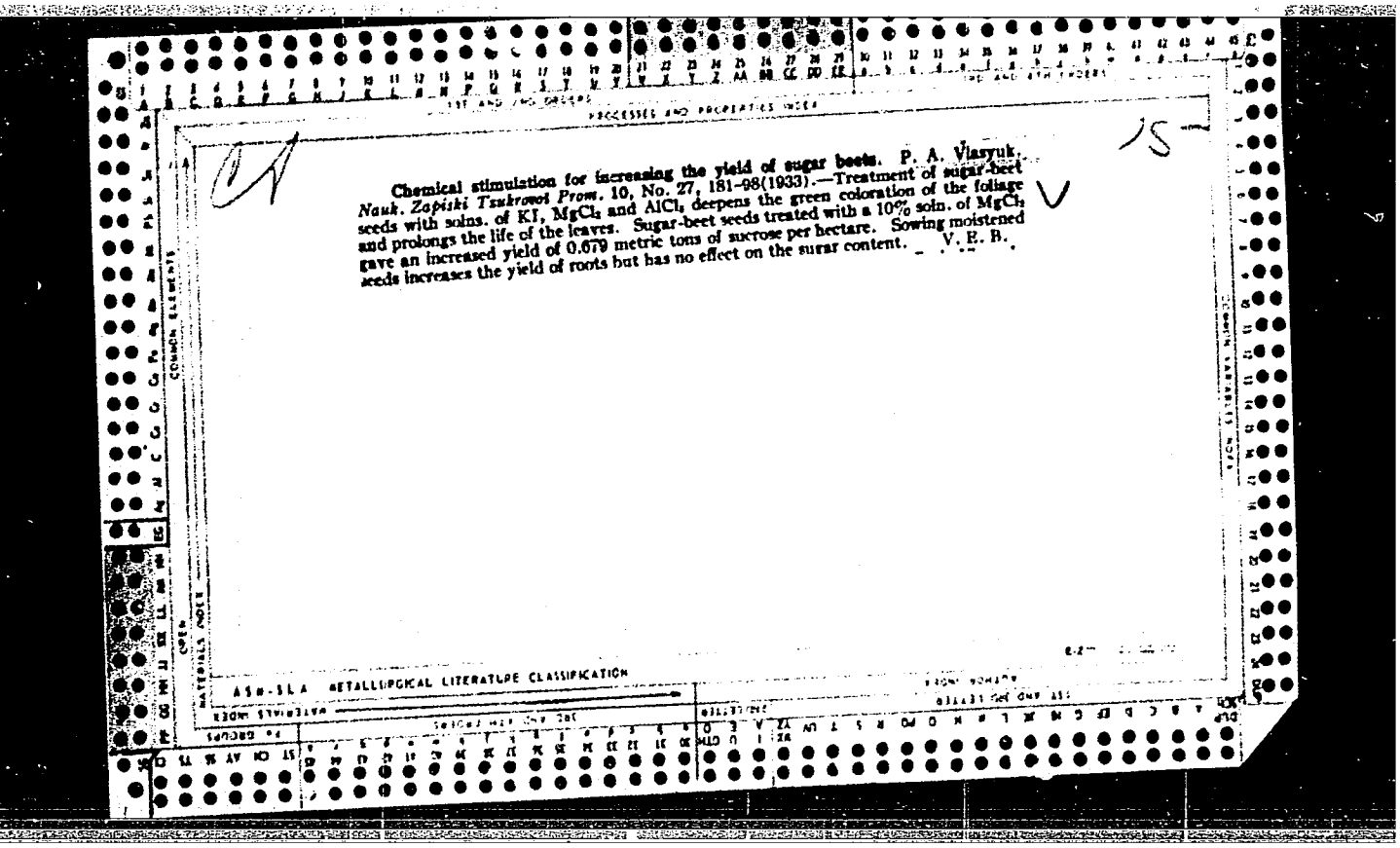
VLASYUK, P. A.

The effect of step-by-step fertilization on the physical and chemical properties of soils. Uman', "Selian-ska pravda". 1930. 138 p. Uman'. Umans'ka sil's'ko-hospodars'ka doslidna stantsiia. Viddil agroknemii. Publications. vyp. 10.

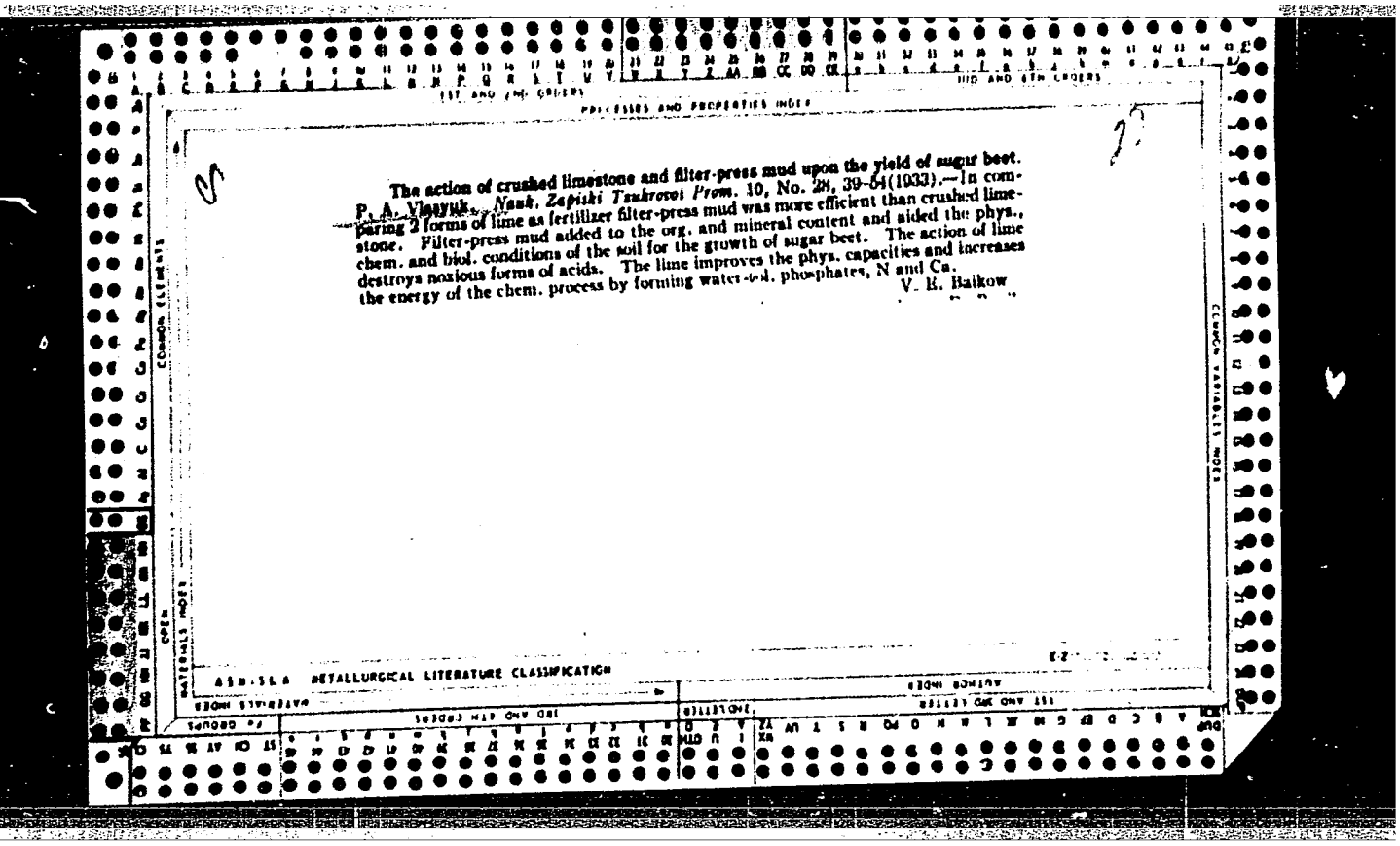
DA



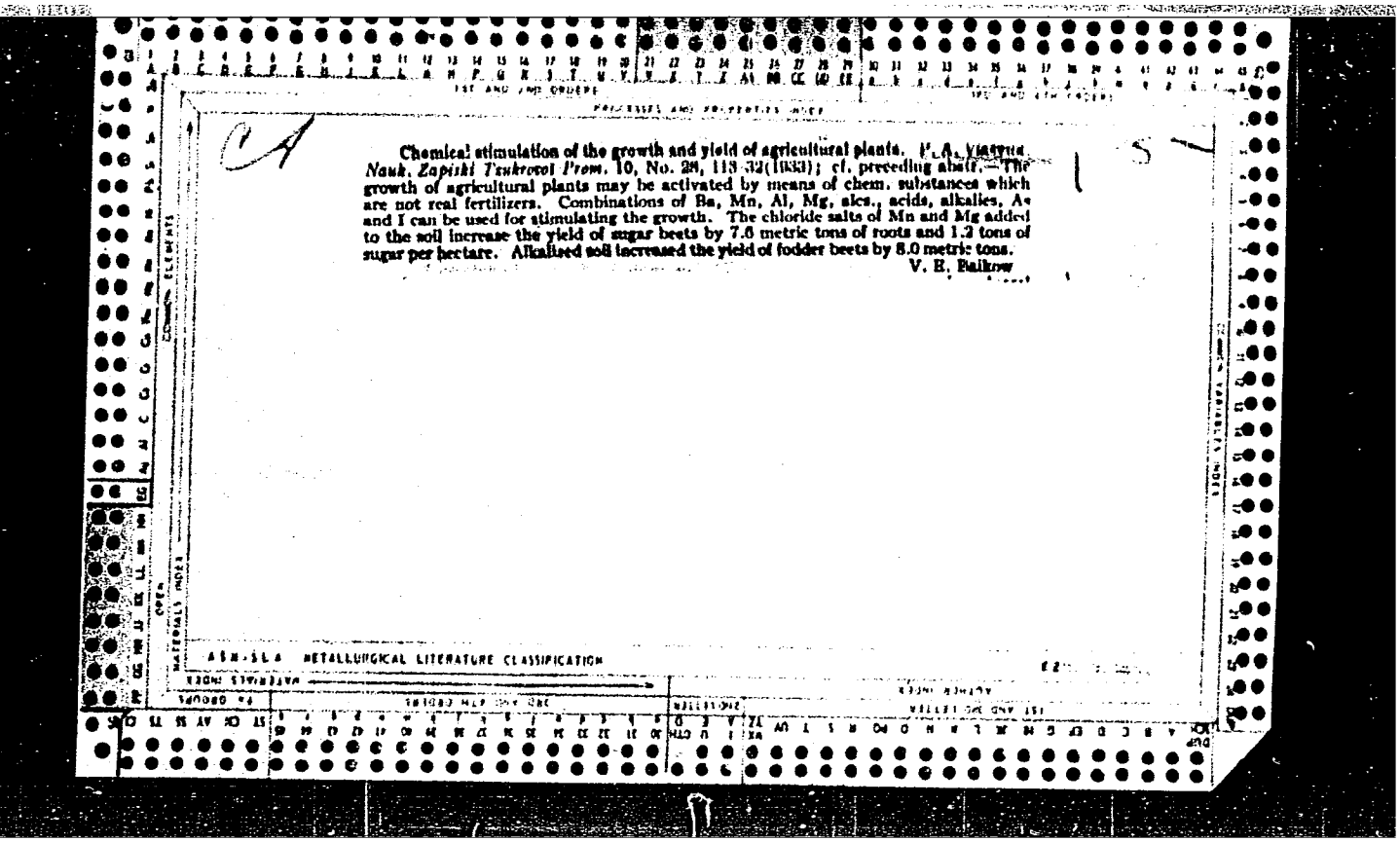
Chemical "stimulation" of sugar-beet seeds for increase of the sugar yield. P. A. VLASYUK. *Nauk. Zapiski Tsukrosol Prom.* 25, 1–26(1932).—The treatment of sugar-beet seeds for 6, 12 and 24 hrs. with chem. solns. considerably increases the germination of seeds and the yield of sugar. A 20% Mn soln. gives good results. Higher and lower percentages have a destructive action upon seeds. A Zn soln. proved to be the best in a 1% concn. of its salts. The optimum dose for Fe appeared to be a 1% soln. or even lower. For Ba 5–10% concn. is the best. The treatment of sugar-beet seeds with 10% soln. of $CuSO_4$ for 24 hrs. increased the yield of sugar by 408 kg. per hectare. A 6-hr. treatment of seeds by a Mn soln. gave an addnl. 518 kg. of sugar per hectare. Org. substances, as, *e. g.*, ether and alc., have a slighter effect upon the productivity of the sugar beet and increased sugar by 148 and 140 kg. per hectare. READ. V. R. [illegible]



Chemical stimulation for increasing the yield of sugar beets. P. A. Vlasyuk. *Nauk. Zapiski Tsukrovoi Prom.* 10, No. 27, 181–98(1933).—Treatment of sugar-beet seeds with solns. of KI, $MgCl_2$ and $AlCl_3$ deepens the green coloration of the foliage and prolongs the life of the leaves. Sugar-beet seeds treated with a 10% soln. of $MgCl_2$ gave an increased yield of 0.079 metric tons of sucrose per hectare. Sowing moistened seeds increases the yield of roots but has no effect on the sugar content. V. E. B.



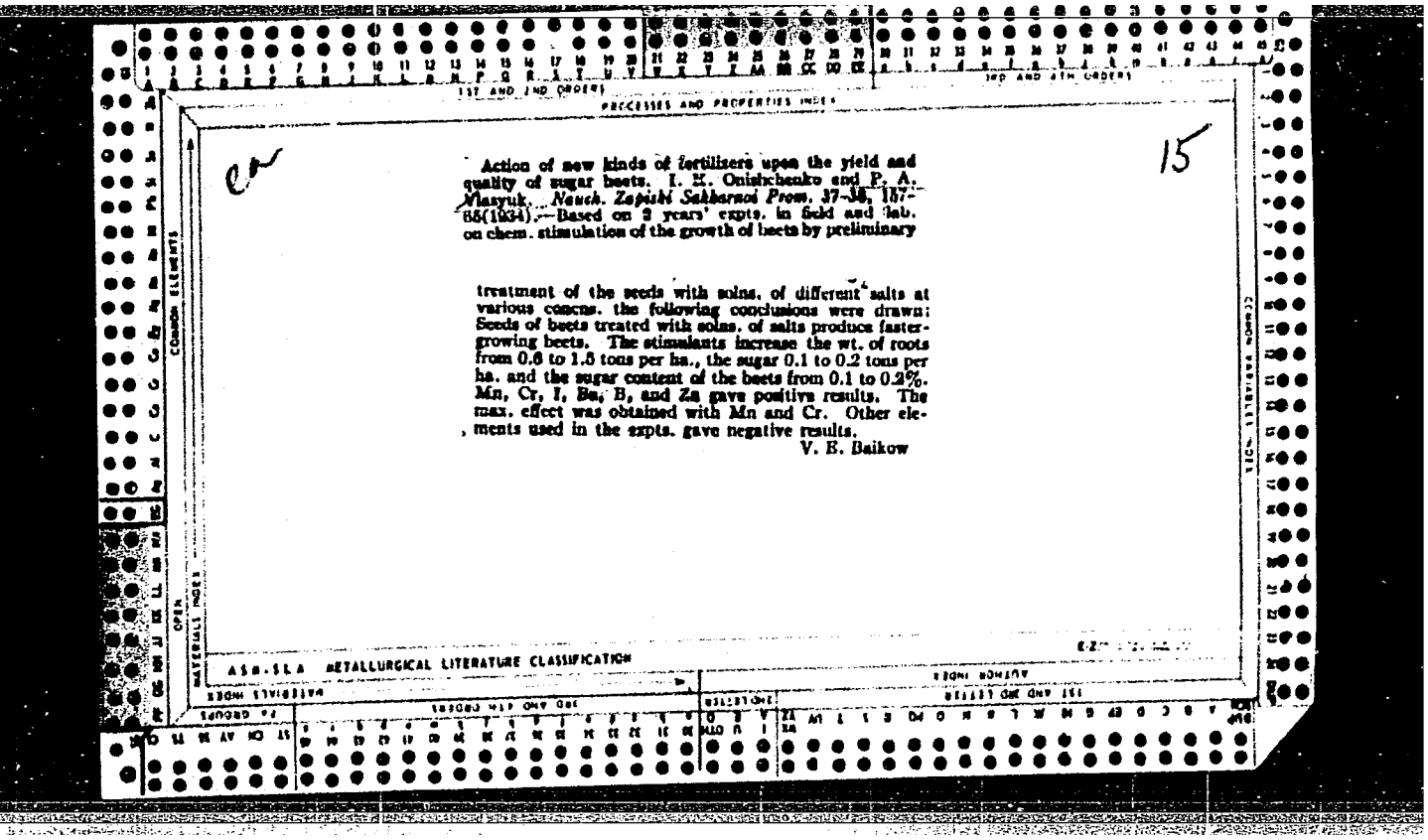
The action of crushed limestone and filter-press mud upon the yield of sugar beet. P. A. Vlasyuk. *Nauk. Zapiski Tsukrovoi Prom.* 10, No. 2/3, 39–64(1933).—In comparing 2 forms of lime as fertilizer filter-press mud was more efficient than crushed limestone. Filter-press mud added to the org. and mineral content and aided the phys., chem. and biol. conditions of the soil for the growth of sugar beet. The action of lime destroys noxious forms of acids. The lime improves the phys. capacities and increases the energy of the chem. process by forming water-sol. phosphates, N and Ca.
V. R. Balkow



Chemical stimulation of the growth and yield of agricultural plants. P. A. Vinyarskii. *Nauk. Zapiski Tsukrosol Prom.* 10, No. 28, 115-32(1933); cf. preceding abstr.—The growth of agricultural plants may be activated by means of chem. substances which are not real fertilizers. Combinations of Ba, Mn, Al, Mg, alcs., acids, alkalies, As and I can be used for stimulating the growth. The chloride salts of Mn and Mg added to the soil increase the yield of sugar beets by 7.6 metric tons of roots and 1.2 tons of sugar per hectare. Alkalised soil increased the yield of fodder beets by 8.0 metric tons.

V. E. Balkow

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



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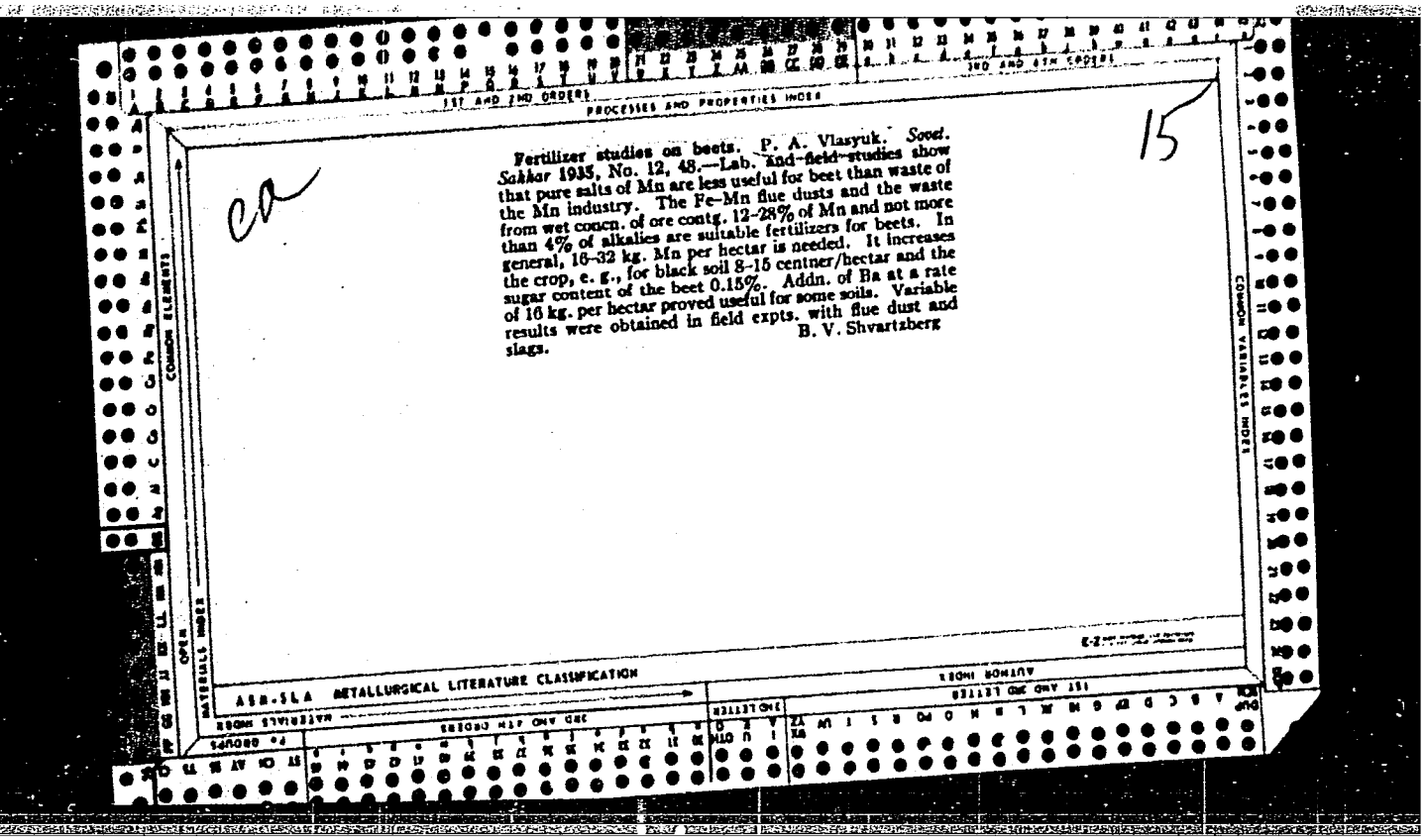
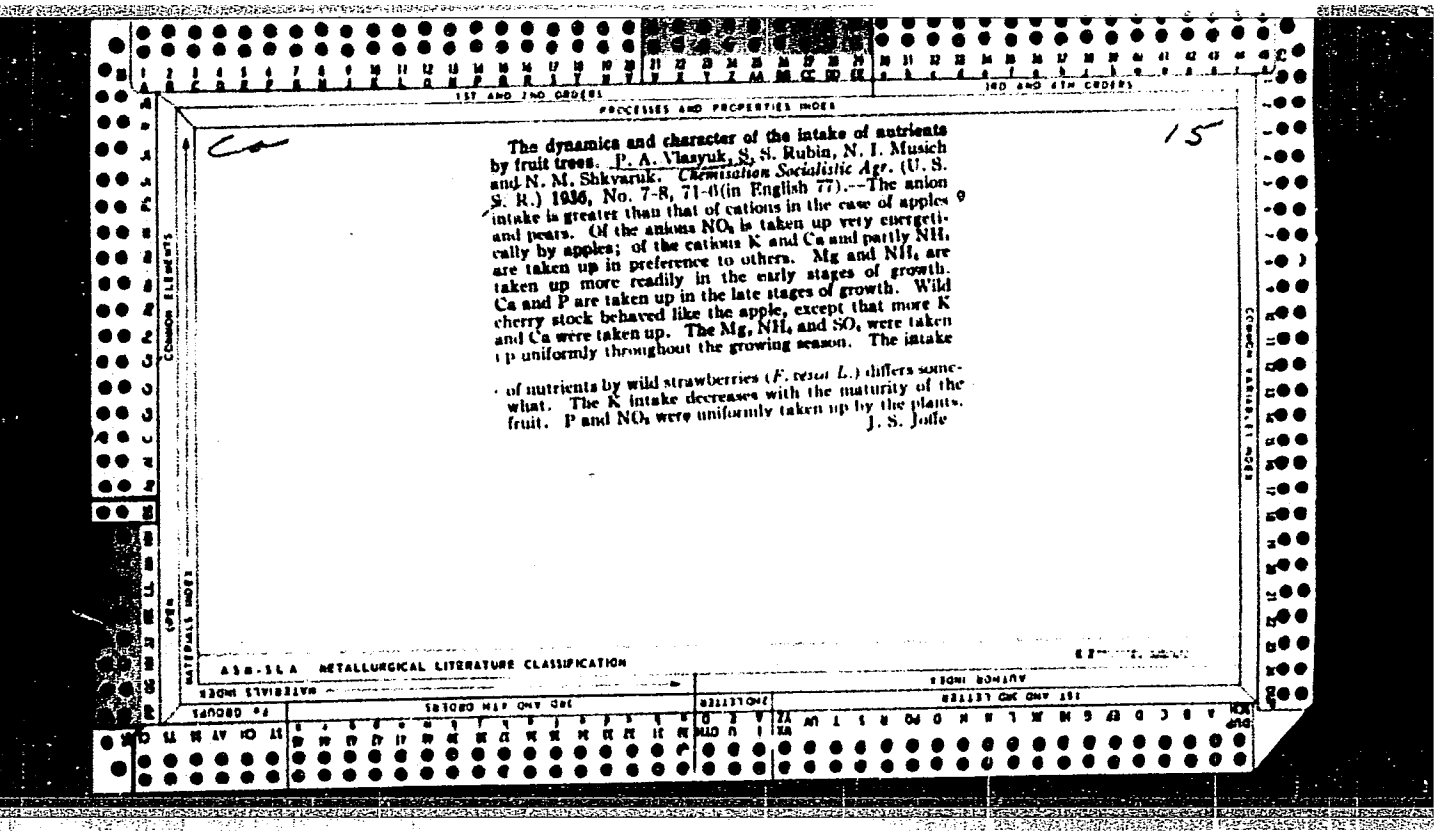
Action of new kinds of fertilizers upon the yield and quality of sugar beets. I. K. Onishchenko and P. A. Mlasyuk. *Nauch. Zapiski Sakharnoi Prom.* 37-38, 157-65(1934).—Based on 2 years' expts. in field and lab. on chem. stimulation of the growth of beets by preliminary treatment of the seeds with solns. of different salts at various concns. the following conclusions were drawn: Seeds of beets treated with solns. of salts produce faster-growing beets. The stimulants increase the wt. of roots from 0.6 to 1.5 tons per ha., the sugar 0.1 to 0.2 tons per ha. and the sugar content of the beets from 0.1 to 0.2%. Mn, Cr, I, Ba, B, and Zn gave positive results. The max. effect was obtained with Mn and Cr. Other elements used in the expts. gave negative results.

V. E. Baikow



Fertilizer studies on beets. P. A. Vlasyuk. *Sovet. Sakkar* 1935, No. 12, 48.—Lab. and field studies show that pure salts of Mn are less useful for beet than waste of the Mn industry. The Fe–Mn flue dusts and the waste from wet concn. of ore contg. 12–28% of Mn and not more than 4% of alkalies are suitable fertilizers for beets. In general, 16–32 kg. Mn per hectar is needed. It increases the crop, e. g., for black soil 8–15 centner/hectar and the sugar content of the beet 0.15%. Addn. of Ba at a rate of 16 kg. per hectar proved useful for some soils. Variable results were obtained in field expts. with flue dust and slags.

B. V. Shvartzberg

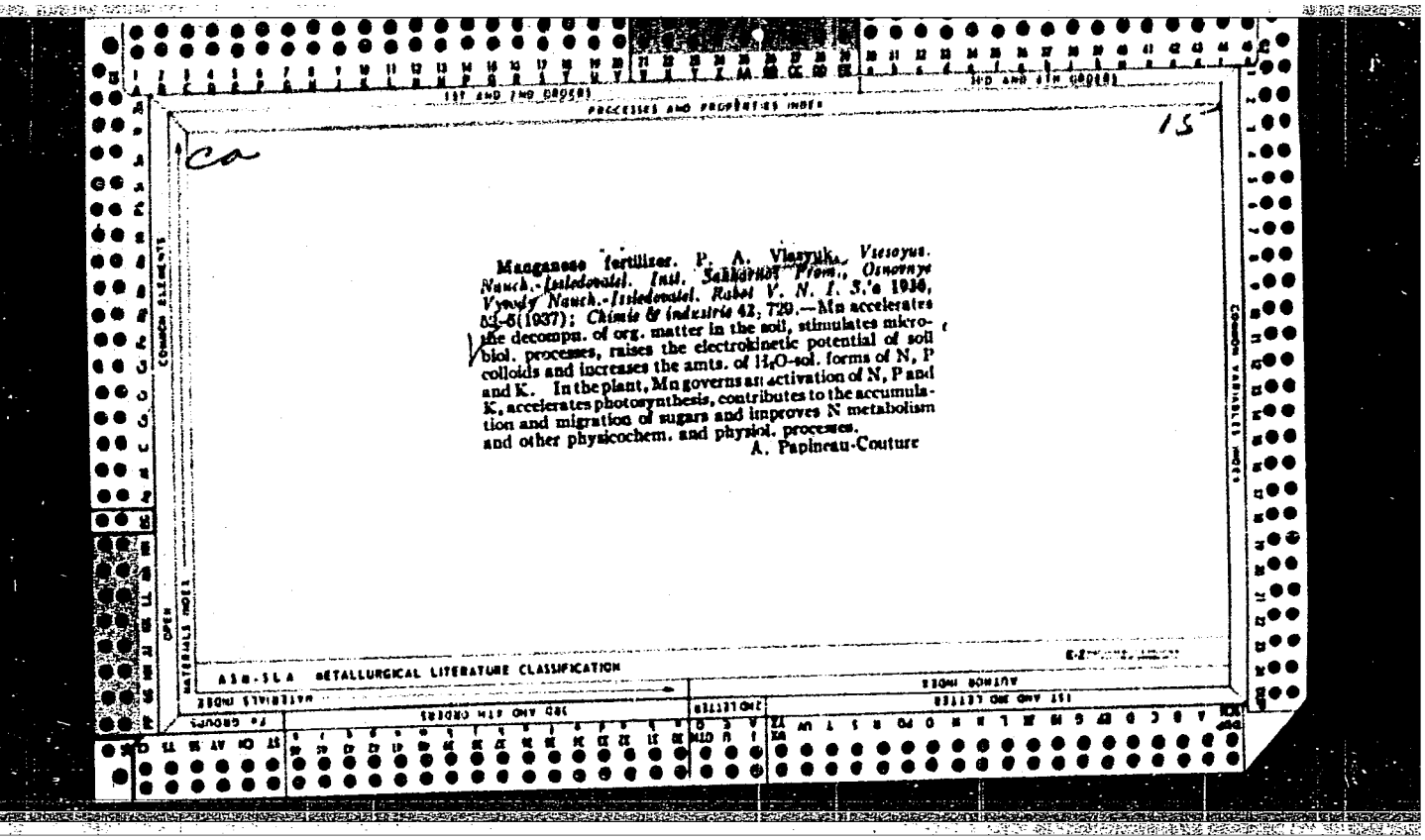


Ca

15

The dynamics and character of the intake of nutrients by fruit trees. P. A. Vlasyuk, S. S. Rubin, N. I. Musich and N. M. Shkvaruk. *Chemization Socialistic Agr.* (U. S. S. R.) **1936**, No. 7-8, 71-6(in English 77).--The anion intake is greater than that of cations in the case of apples and pears. Of the anions NO_3 is taken up very energetically by apples; of the cations K and Ca and partly NH_4 are taken up in preference to others. Mg and NH_4 are taken up more readily in the early stages of growth. Ca and P are taken up in the late stages of growth. Wild cherry stock behaved like the apple, except that more K and Ca were taken up. The Mg, NH_4, and SO_4 were taken up uniformly throughout the growing season. The intake of nutrients by wild strawberries (*F. vesca L.*) differs somewhat. The K intake decreases with the maturity of the fruit. P and NO_3 were uniformly taken up by the plants.

J. S. Joffe

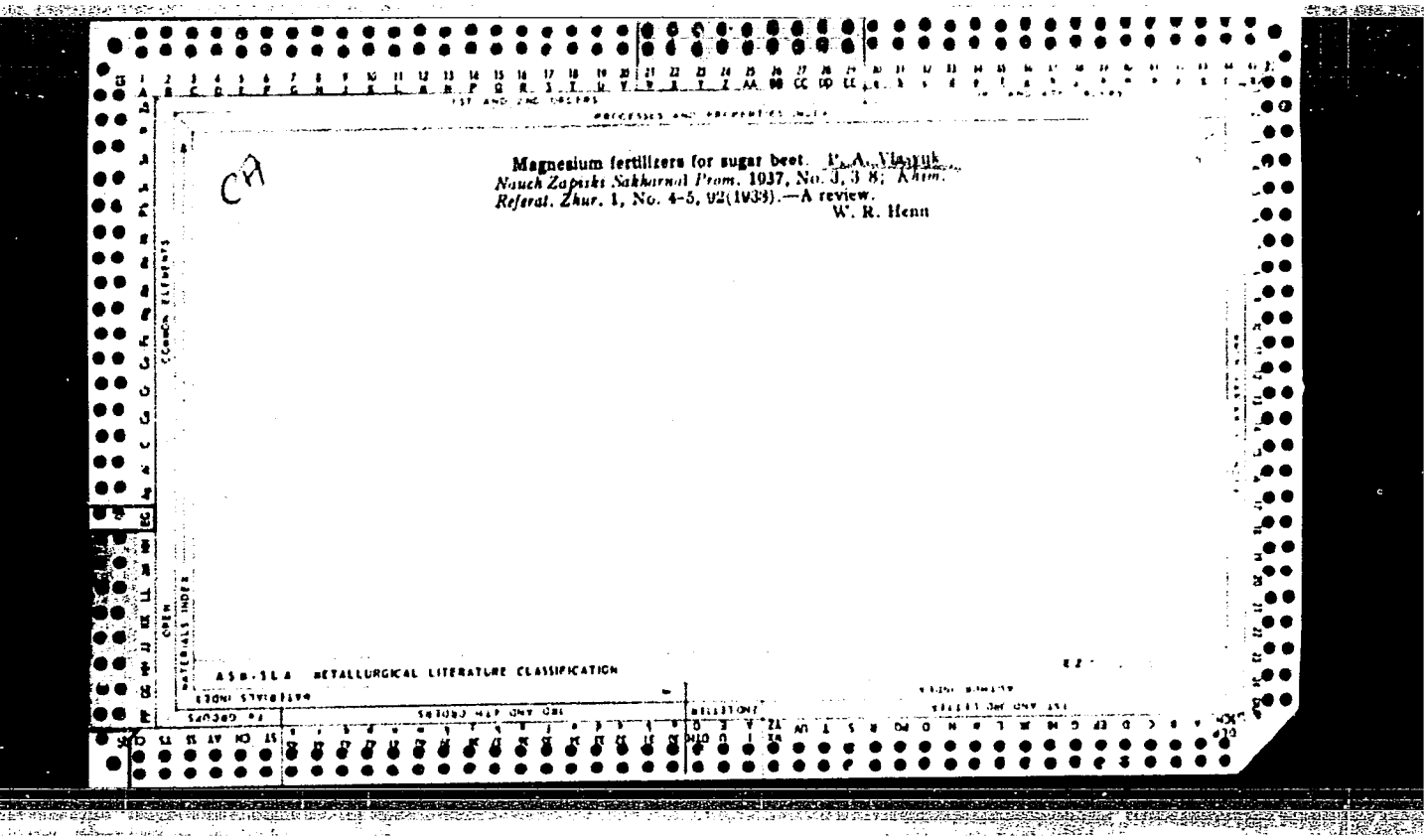


Ca

15

Manganese fertilizer. P. A. Vlasyuk. *Vsesoyus. Nauch.-Issledovatel. Inst. Sakharnoi Prom., Osnovnye Vyvody Nauch.-Issledovatel. Rabot V. N. I. S.'a* 1934, 54–5(1937); *Chimie & industrie* 42, 729.—Mn accelerates the decompn. of org. matter in the soil, stimulates microbiol. processes, raises the electrokinetic potential of soil colloids and increases the amts. of H_2O-sol. forms of N, P and K. In the plant, Mn governs an activation of N, P and K, accelerates photosynthesis, contributes to the accumulation and migration of sugars and improves N metabolism and other physicochem. and physiol. processes.

A. Papineau-Couture

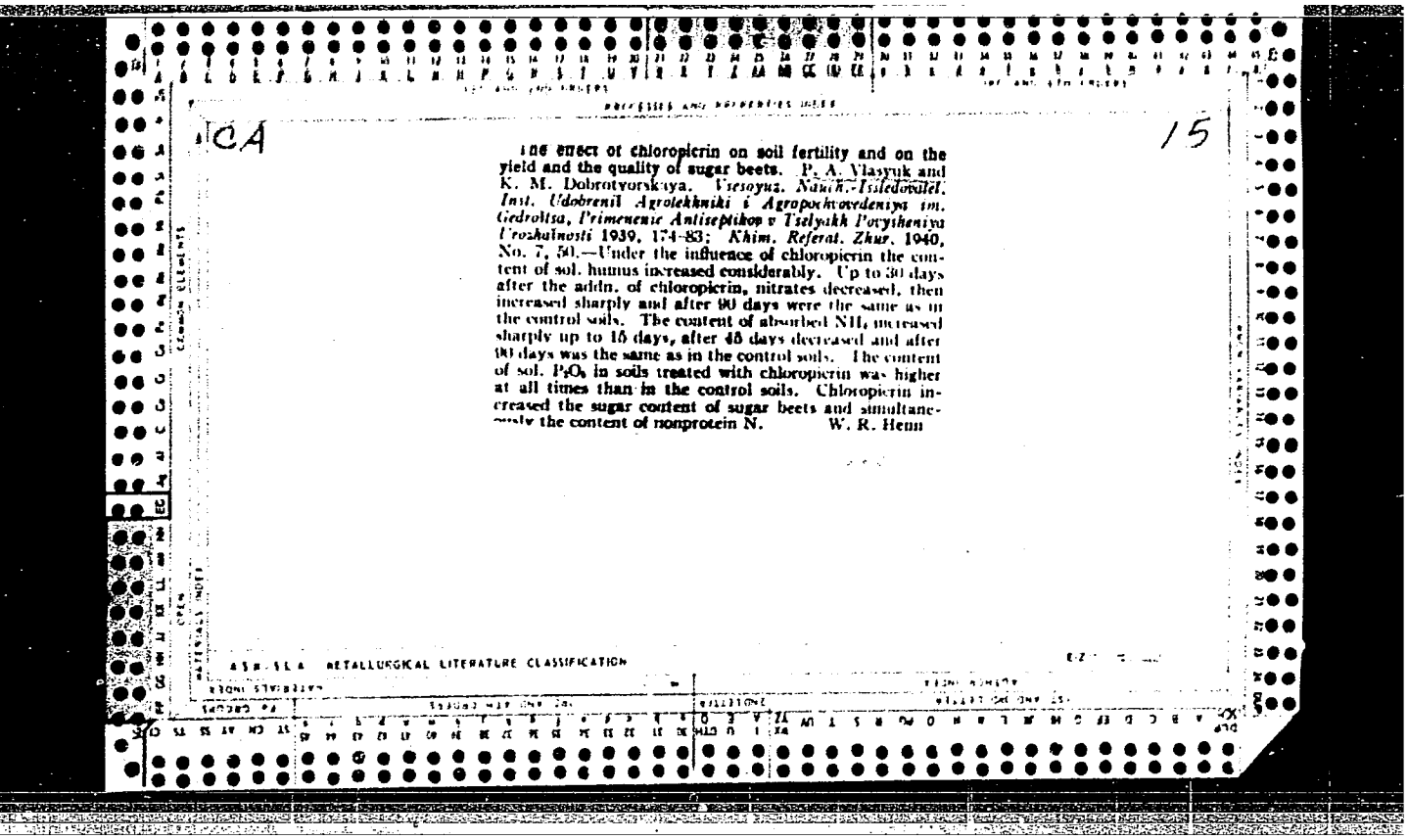


Magnesium fertilizers for sugar beet. P. A. Vlasyuk. *Nauch Zapiski Sakharnoi Prom.* 1937, No. 3, 3-8; *Khim. Referat. Zhur.* 1, No. 4-5, 92(1938).—A review.
W. R. Henn

15

The use of sodium chloride as fertilizer for sugar beets. P. A. Vlasyuk. *Nauch. Zapiski Sakharnoi Prom., Agron. Ryp.* 15, No. 3-4, 61-80(1938); *Chem. Zentr.* 1939, II, 2697.—The use of NaCl as a fertilizer for sugar beets was found to be beneficial on carbonate [illegible] soils (I), slightly leached soils (II), and well leached soils (III). It was beneficial on the last soil only when it was sufficiently cultivated. Na and Cl activate growth and phys.-chem. processes in the plants and in the soil itself and eliminate the action of toxic substances formed in the cells during the course of the dissimilation process. The following optimum NaCl doses are given for the soil types studied: on soils I and II using a basic N + P + K or manure fertilizer at the time of the fall plowing, 500 kg. per hectare was used with an addnl. 170 kg. per hectare at the time of planting and cultivation. On soil III, 400 kg. per hectare was used with an addnl. 95-110 kg. at the time of planting and cultivating. The increase in yield per hectare with the use of NaCl was 3500-9600 kg. on soil I, 1100-7600 kg. on soil II, and 300-3500 kg. on soil III, with the yield on the control plot being 30,000-41,200 kg. per hectare. The percentage increase in sugar content of the beets was 0.4-2.2%.

M. G. Moore

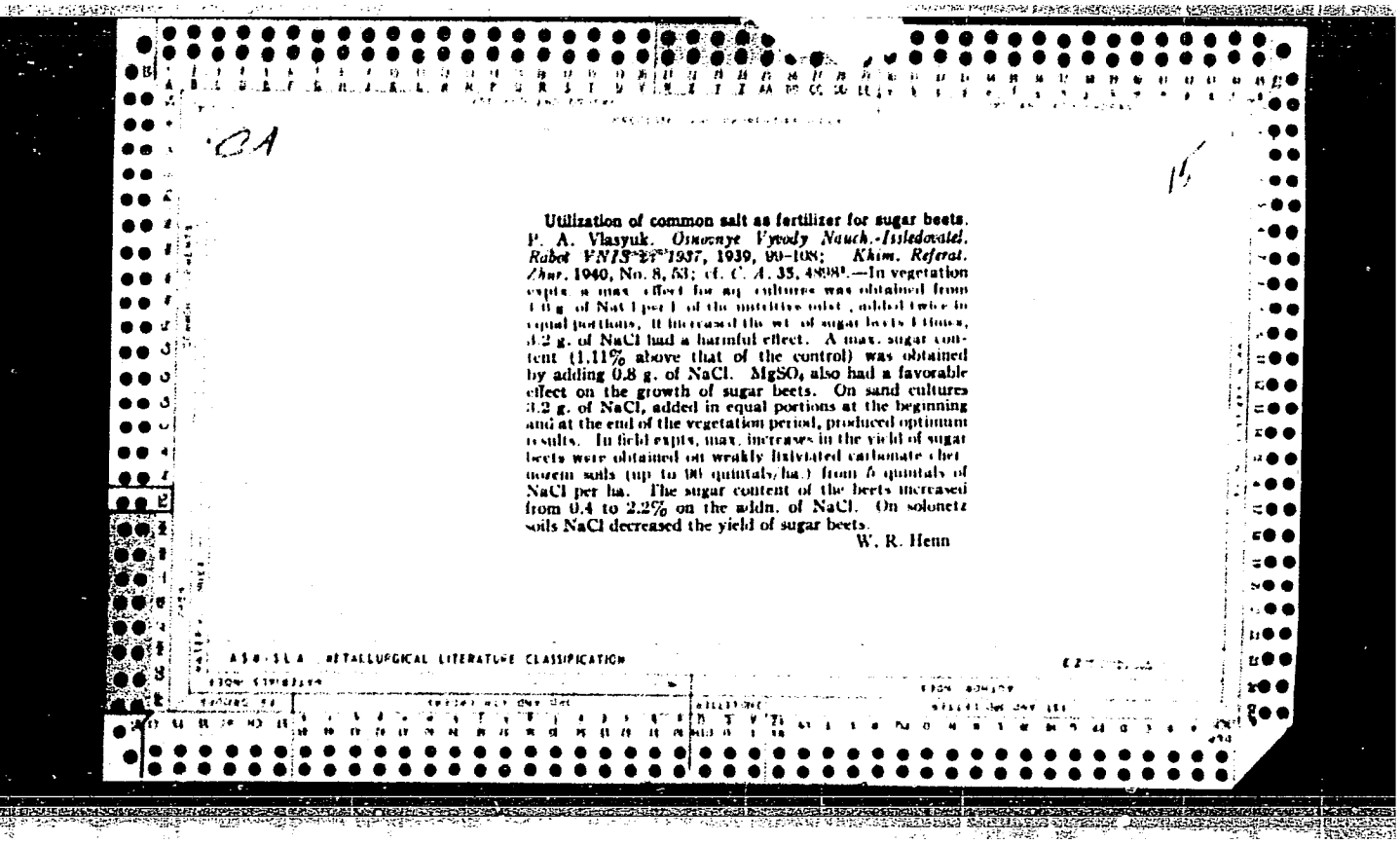


CA

15

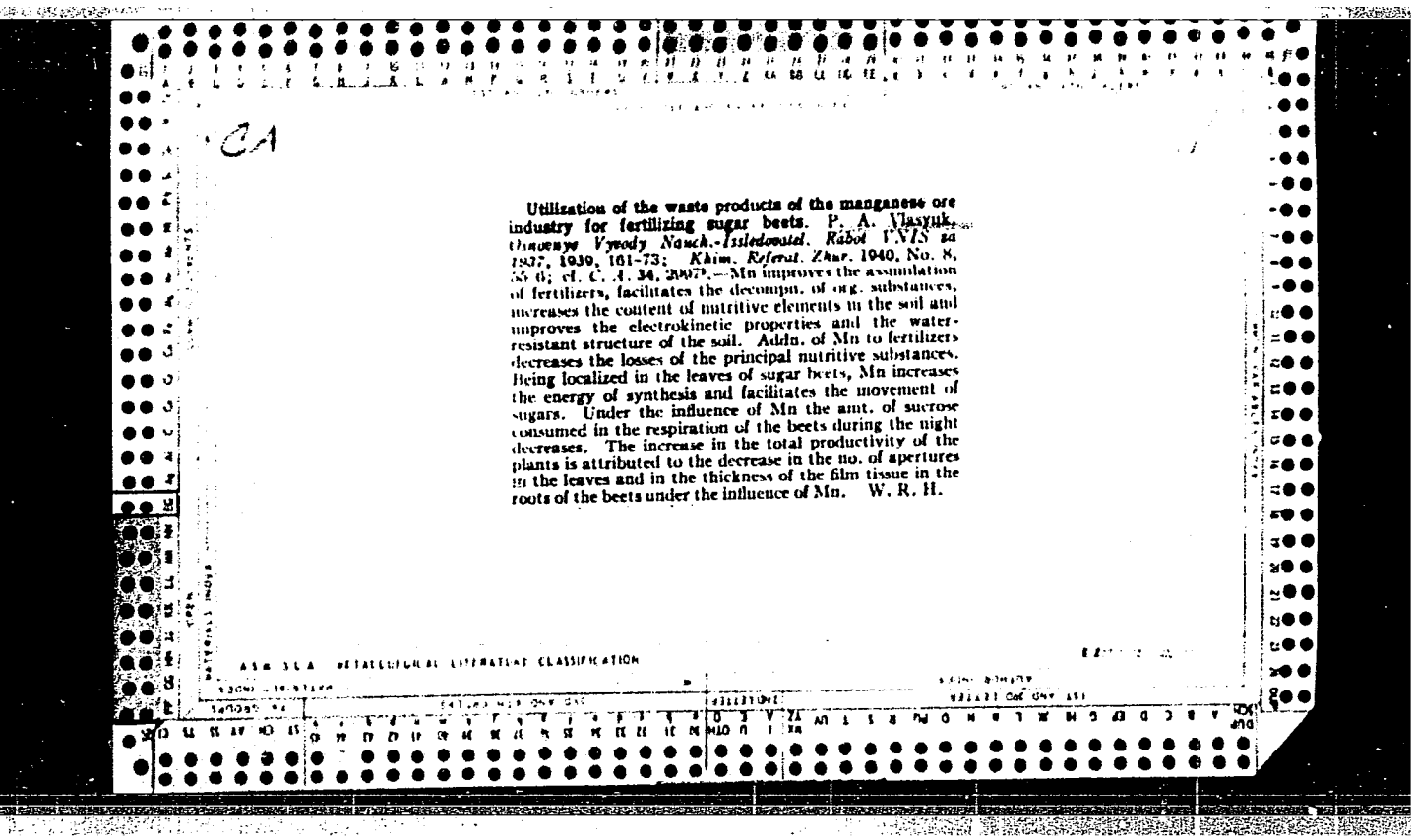
The effect of chloropicrin on soil fertility and on the yield and the quality of sugar beets. P. A. Vlasyuk and K. M. Dobrotvorskaya. *Vsesoyuz. Nauch.-Issledovatel. Inst. Udobrenii Agrotekhniki i Agropochvovedeniya im. Gedroitsa, Primenenie Antiseptikov v Tselyakh Povysheniya Urozhainosti* 1939, 174–83; *Khim. Referat. Zhur.* 1940, No. 7, 50.—Under the influence of chloropicrin the content of sol. humus increased considerably. Up to 30 days after the addn. of chloropicrin, nitrates decreased, then increased sharply and after 90 days were the same as in the control soils. The content of absorbed NH_4 increased sharply up to 15 days, after 45 days decreased and after 90 days was the same as in the control soils. The content of sol. P_2O_5 in soils treated with chloropicrin was higher at all times than in the control soils. Chloropicrin increased the sugar content of sugar beets and simultaneously the content of nonprotein N. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



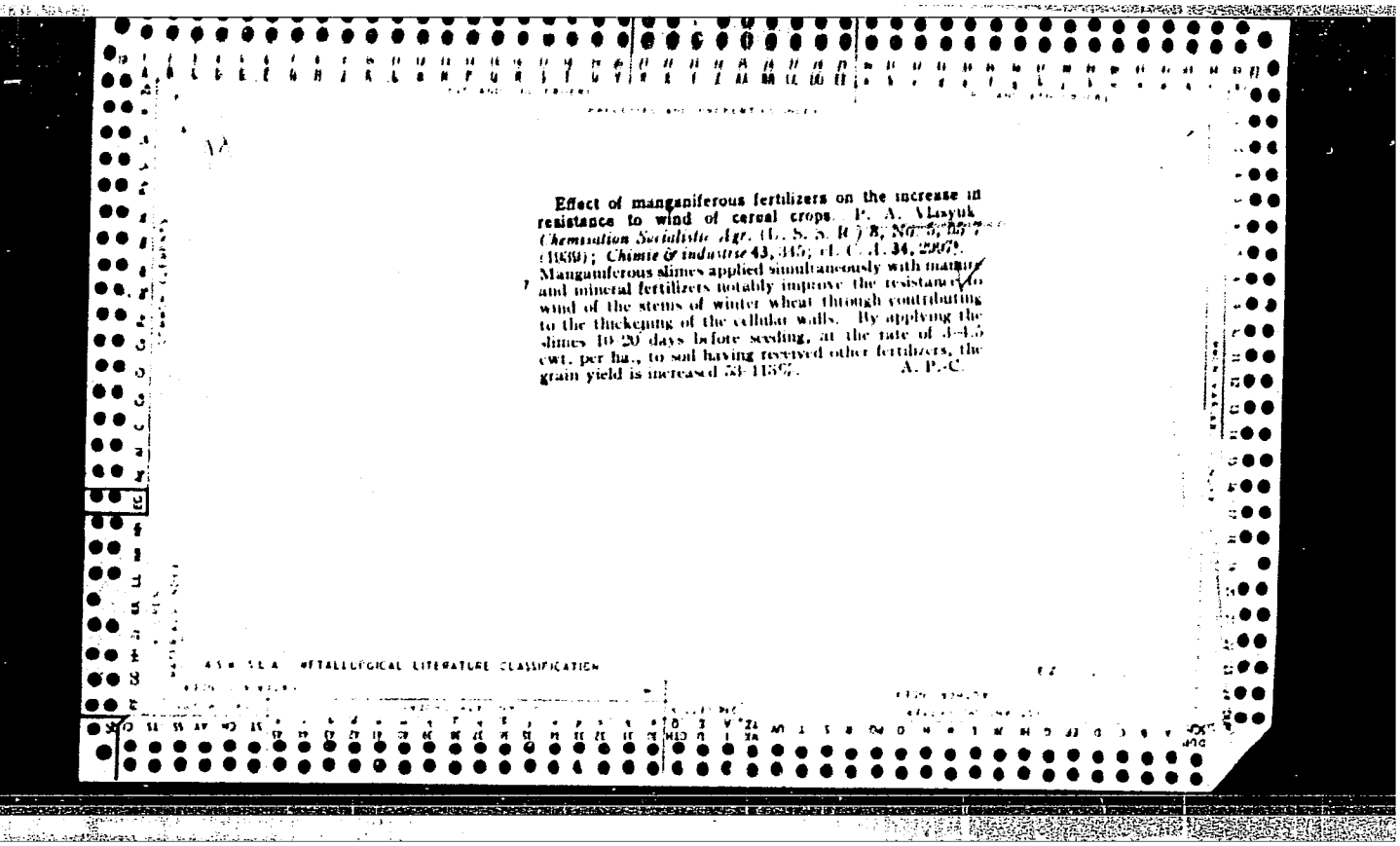
Utilization of common salt as fertilizer for sugar beets. P. A. Vlasyuk. *Otnosnye Vysody Nauch.-Issledovatel. Rabot VNIS za 1937*, 1939, 99–108; *Khim. Referat. Zhur.* 1940, No. 8, 53; cf. *C. A.* 35, 4898⁹.—In vegetation expts. a max. effect for sand cultures was obtained from 1.0 g. of NaCl per l. of the nutritive solut., added twice in equal portions. It increased the wt. of sugar beets 4 times. 3.2 g. of NaCl had a harmful effect. A max. sugar content (1.11% above that of the control) was obtained by adding 0.8 g. of NaCl. $MgSO_4$ also had a favorable effect on the growth of sugar beets. On sand cultures 3.2 g. of NaCl, added in equal portions at the beginning and at the end of the vegetation period, produced optimum results. In field expts. max. increases in the yield of sugar beets were obtained on weakly leached carbonate chernozem soils (up to 80 quintals/ha.) from 5 quintals of NaCl per ha. The sugar content of the beets increased from 0.4 to 2.2% on the addn. of NaCl. On solonetz soils NaCl decreased the yield of sugar beets.

W. R. Henn



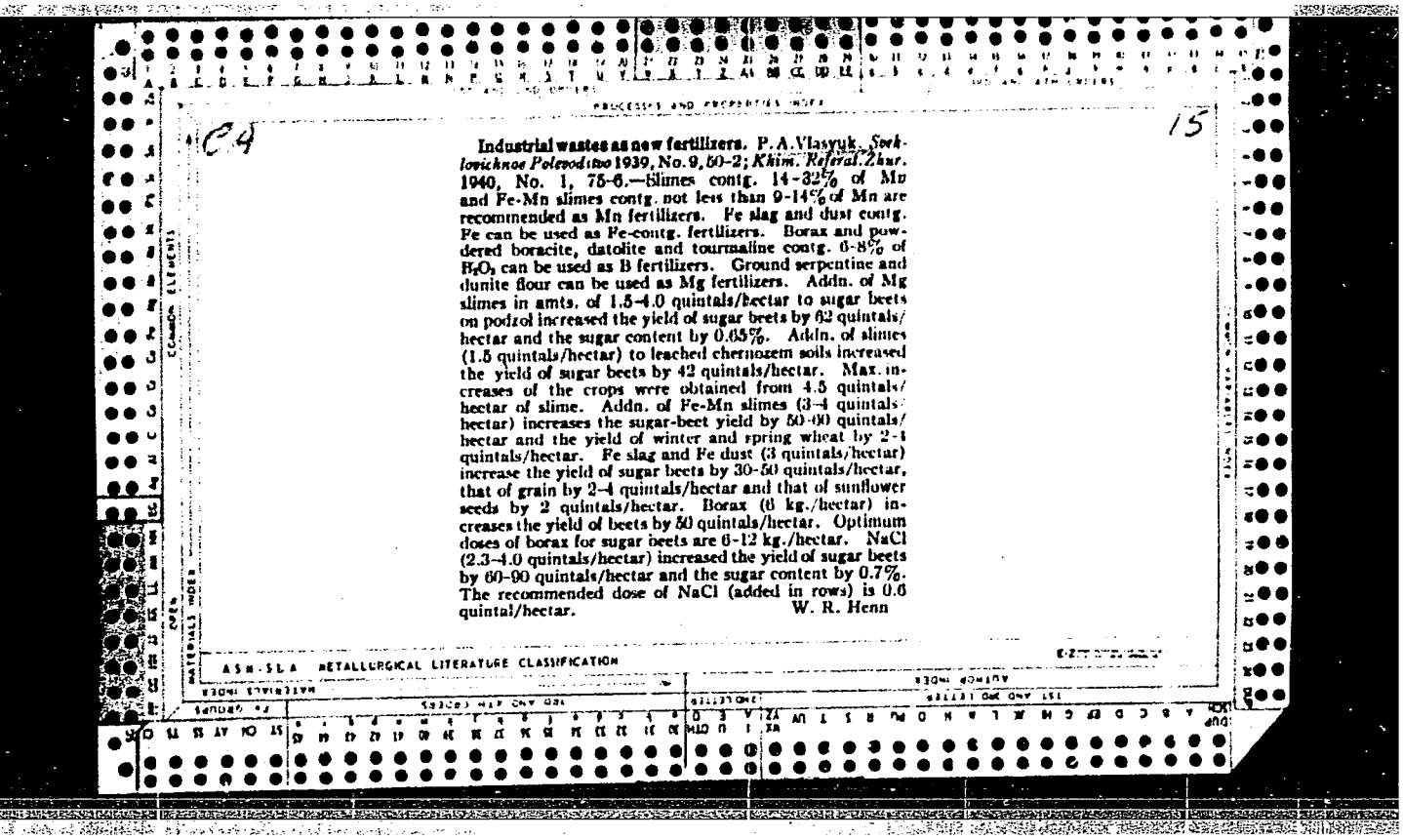
CA

Utilization of the waste products of the manganese ore industry for fertilizing sugar beets. P. A. Vlasyuk. *Ukrainskye Vysshy Nauch.-Issledovatel. Rabot VASKhNIS za 1937, 1939, 161-73; Khim. Referat. Zhur.* 1940, No. 8, 55-6; cf. C. A. 34, 2007⁹.—Mn improves the assimilation of fertilizers, facilitates the decompn. of org. substances, increases the content of nutritive elements in the soil and improves the electrokinetic properties and the water-resistant structure of the soil. Addn. of Mn to fertilizers decreases the losses of the principal nutritive substances. Being localized in the leaves of sugar beets, Mn increases the energy of synthesis and facilitates the movement of sugars. Under the influence of Mn the amt. of sucrose consumed in the respiration of the beets during the night decreases. The increase in the total productivity of the plants is attributed to the decrease in the no. of apertures in the leaves and in the thickness of the film tissue in the roots of the beets under the influence of Mn. W. R. H.



Effect of manganiferous fertilizers on the increase in resistance to wind of cereal crops. P. A. Vlasyuk. *Chemisation Socialiste Agr.* (U. S. S. R.) **8**, No. 5, 55-7 (1939); *Chimie & industrie* **43**, 345; cf. C. A. **34**, 2967. Manganiferous slimes applied simultaneously with manure and mineral fertilizers notably improve the resistance to wind of the stems of winter wheat through contributing to the thickening of the cellular walls. By applying the slimes 10-20 days before seeding, at the rate of 3-4.5 cwt. per ha., to soil having received other fertilizers, the grain yield is increased 53-115%. A. P.-C.

A S M S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



C4

15

Industrial wastes as new fertilizers. P. A. Vlasyuk. *Sovkhozkhoe Polevodstvo* 1939, No. 9, 50–2; *Khim. Referat. Zhur.* 1940, No. 1, 75–6.—Slimes contg. 14–32% of Mn and Fe-Mn slimes contg. not less than 9–14% of Mn are recommended as Mn fertilizers. Fe slag and dust contg. Fe can be used as Fe-contg. fertilizers. Borax and powdered boracite, datolite and tourmaline contg. 6–8% of B_2O_3 can be used as B fertilizers. Ground serpentine and dunite flour can be used as Mg fertilizers. Addn. of Mg slimes in amts. of 1.5–4.0 quintals/hectar to sugar beets on podzol increased the yield of sugar beets by 62 quintals/hectar and the sugar content by 0.65%. Addn. of slimes (1.5 quintals/hectar) to leached chernozem soils increased the yield of sugar beets by 42 quintals/hectar. Max. increases of the crops were obtained from 4.5 quintals/hectar of slime. Addn. of Fe-Mn slimes (3–4 quintals/hectar) increases the sugar-beet yield by 50–60 quintals/hectar and the yield of winter and spring wheat by 2–4 quintals/hectar. Fe slag and Fe dust (3 quintals/hectar) increase the yield of sugar beets by 30–50 quintals/hectar, that of grain by 2–4 quintals/hectar and that of sunflower seeds by 2 quintals/hectar. Borax (6 kg./hectar) increases the yield of beets by 50 quintals/hectar. Optimum doses of borax for sugar beets are 6–12 kg./hectar. NaCl (2.3–4.0 quintals/hectar) increased the yield of sugar beets by 60–90 quintals/hectar and the sugar content by 0.7%. The recommended dose of NaCl (added in rows) is 0.6 quintal/hectar.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

Serpentine as fertilizer. P. A. Vlasyuk. *Tekh. Kul'tury* 1939, No. 11-12, 71-4; *Khim. Referat. Zhur.* 1940, No. 8, 47-8.—V. investigated the physiol. and fertilizing effect of $MgCl_2$, $MgSO_4$ and ground serpentine (contg. SiO_2 29.35, Al_2O_3 0.87, Fe_2O_3 9.13, CaO 3.4 and MgO 35.2%) on sugar beets in aq. and sand cultures and in field expts. Absence of Mg suppresses the synthesis of the org. substance, decreases the accumulation of sugar and the intensity of the oxidation-reduction processes in the leaves and increases the acidity in the stems. The no. of leaves and the assimilable surface also decrease. This decreases the absorption of water by the beets. Addn. of 30 kg./ha. of ground serpentine to the soil dressing had a favorable effect on the yield and sugar content of the beets only under conditions of the Voronezh region and, partly, of the Odessa region. The increase in the yield of beets was 7.8-14.1 quintals/ha. and in the sugar content 0.1-0.8%. In the Kuban region addn. of serpentine in rows increased the yield by 33-38 quintals/ha. and the sugar content by 0.5-0.8%. On solonets and podzol soils the increases in the yields were 7-20 and 1 quintal/ha., resp.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

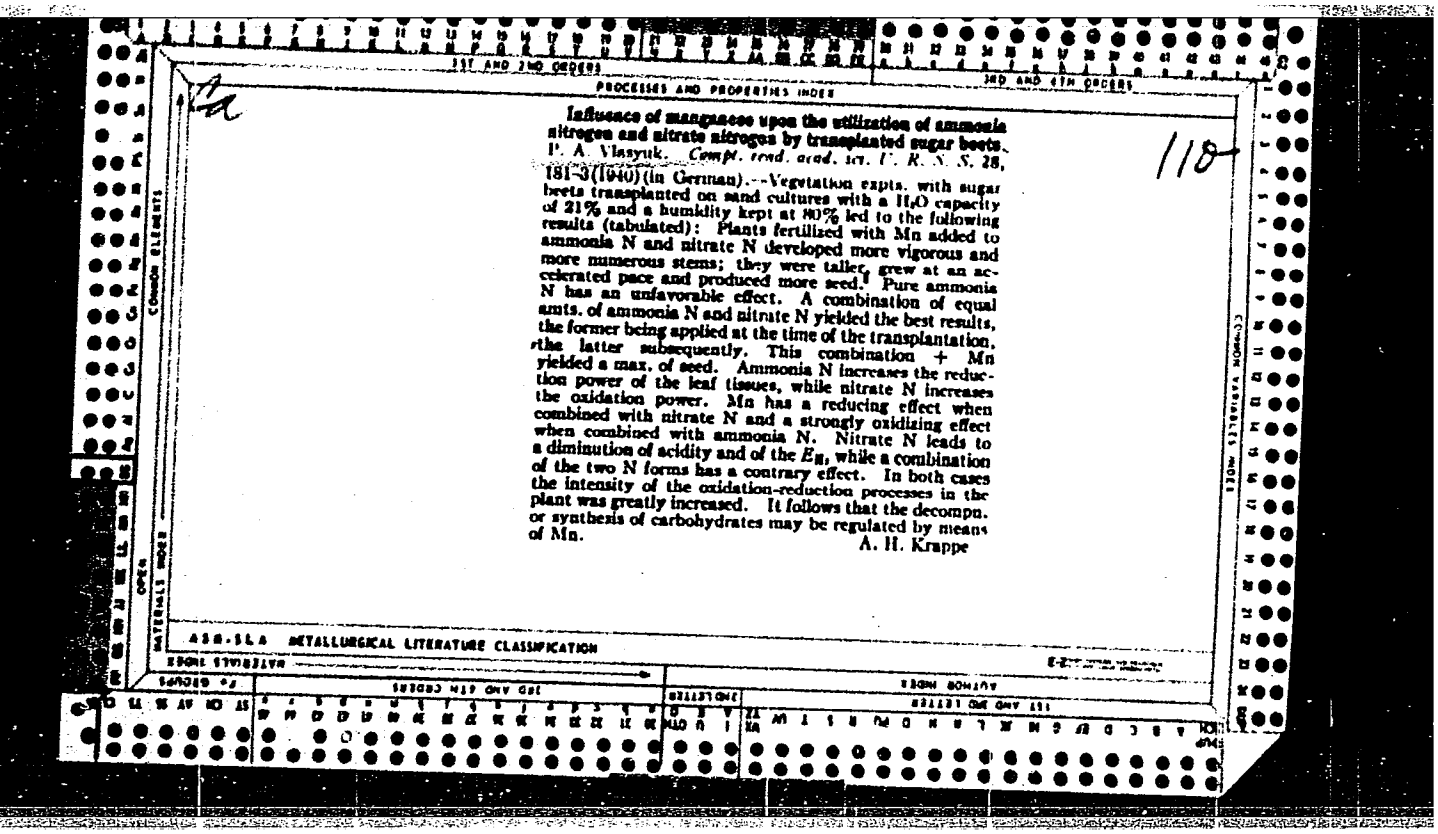
PROCESSES AND PROPERTIES INDEX

Ca

Determination of manganese in plants. P. A. Vlasyuk and V. Ya. Gornaya. *Compt. rend. acad. sci. U. R. S. S.* 28, 124-6(1940)(in German).—The sample is ashed, the ash treated with 10 ml. concd. HNO_3, dild. with H_2O and Mn detd. colorimetrically after persulfate oxidation in the presence of $AgNO_3$ as catalyst. 8 references.

A. H. Kraus

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

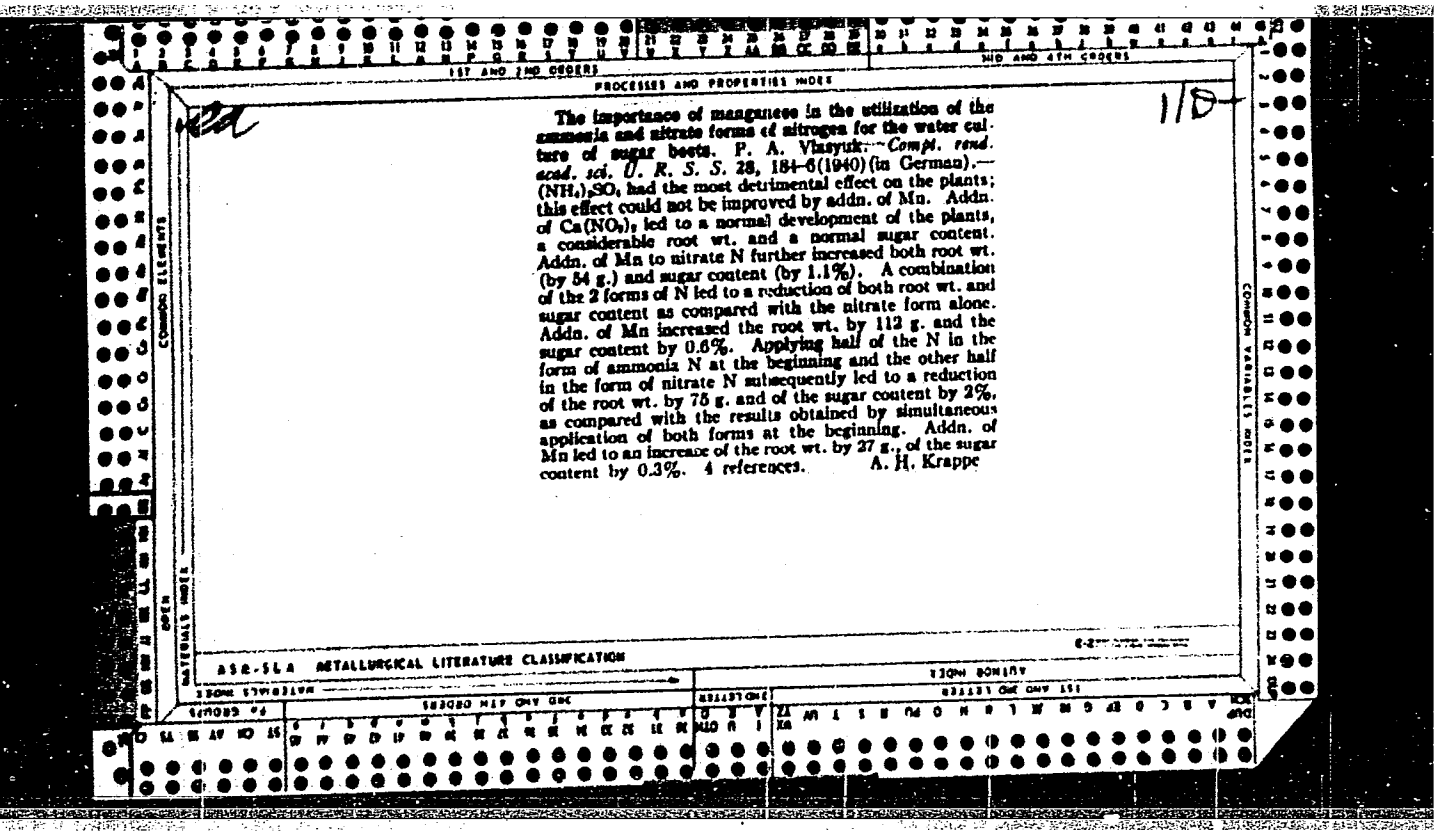


PROCESSES AND PROPERTIES INDEX

Influence of manganese upon the utilization of ammonia nitrogen and nitrate nitrogen by transplanted sugar beets. P. A. Vlasyuk. *Compt. rend. acad. sci. U. R. S. S.* 28, 181-3 (1940) (in German).--Vegetation expts. with sugar beets transplanted on sand cultures with a H_2O capacity of 21% and a humidity kept at 80% led to the following results (tabulated): Plants fertilized with Mn added to ammonia N and nitrate N developed more vigorous and more numerous stems; they were taller, grew at an accelerated pace and produced more seed. Pure ammonia N has an unfavorable effect. A combination of equal amts. of ammonia N and nitrate N yielded the best results, the former being applied at the time of the transplantation, the latter subsequently. This combination + Mn yielded a max. of seed. Ammonia N increases the reduction power of the leaf tissues, while nitrate N increases the oxidation power. Mn has a reducing effect when combined with nitrate N and a strongly oxidizing effect when combined with ammonia N. Nitrate N leads to a diminution of acidity and of the E_H, while a combination of the two N forms has a contrary effect. In both cases the intensity of the oxidation-reduction processes in the plant was greatly increased. It follows that the decompn. or synthesis of carbohydrates may be regulated by means of Mn.

A. H. Krappe

A58-51A METALLURGICAL LITERATURE CLASSIFICATION



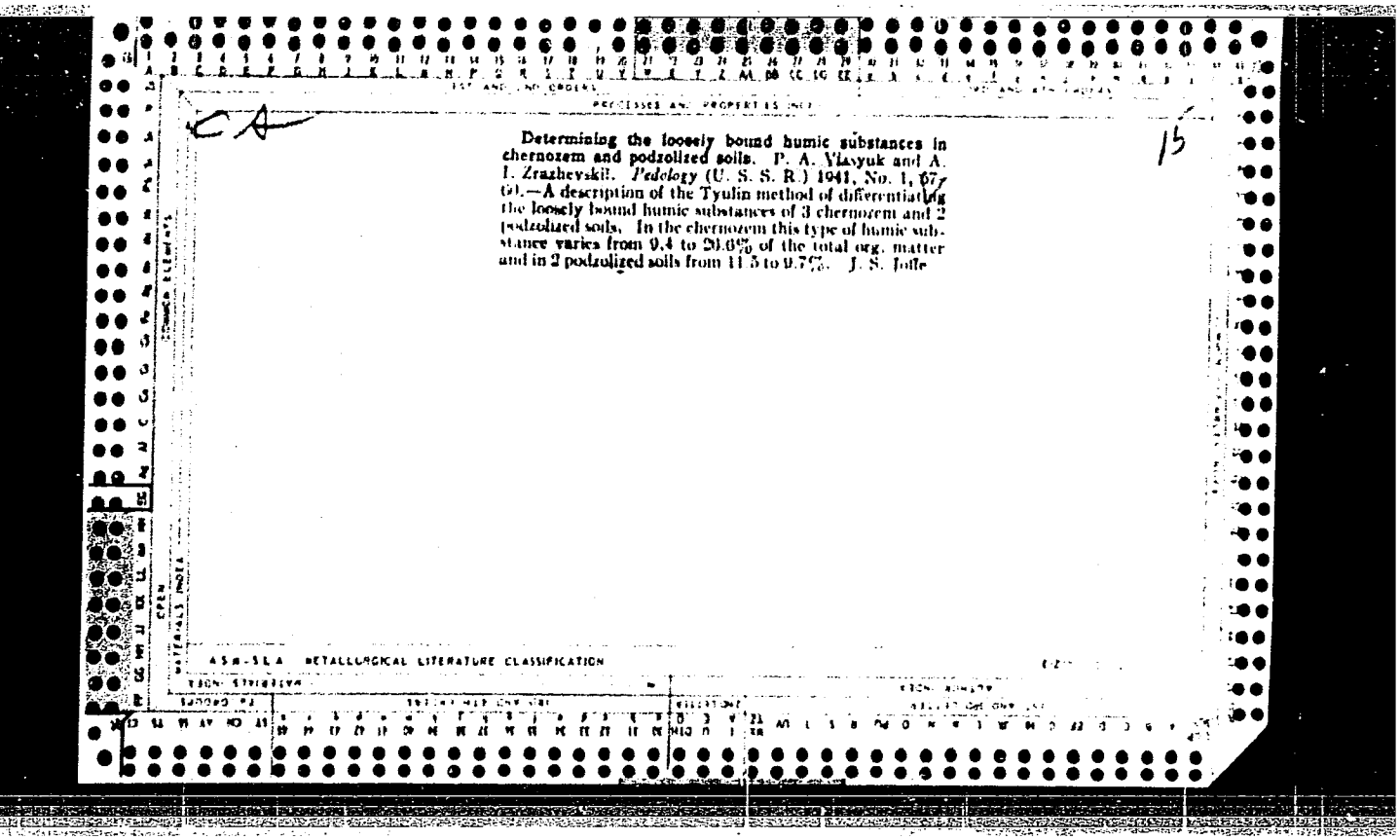
The importance of manganese in the utilization of the ammonia and nitrate forms of nitrogen for the water culture of sugar beets. P. A. Vlasyuk. —*Compt. rend. acad. sci. U. R. S. S.* 28, 184–6(1940)(in German).—$(NH_4)_2SO_4$ had the most detrimental effect on the plants; this effect could not be improved by addn. of Mn. Addn. of $Ca(NO_3)_2$ led to a normal development of the plants, a considerable root wt. and a normal sugar content. Addn. of Mn to nitrate N further increased both root wt. (by 54 g.) and sugar content (by 1.1%). A combination of the 2 forms of N led to a reduction of both root wt. and sugar content as compared with the nitrate form alone. Addn. of Mn increased the root wt. by 112 g. and the sugar content by 0.6%. Applying half of the N in the form of ammonia N at the beginning and the other half in the form of nitrate N subsequently led to a reduction of the root wt. by 75 g. and of the sugar content by 2%, as compared with the results obtained by simultaneous application of both forms at the beginning. Addn. of Mn led to an increase of the root wt. by 27 g., of the sugar content by 0.3%. 4 references. A. H. Krappe

VLASIUK, P. A.

New manganese fertilizers; the effect of manganese and its microchements on agricultural plants Kyiv, Vyd-vo Akademii nauk URSR, 1961. 258 p. (53-47573)

S663.V55 CtY CU

1. Plants, Effect of manganese on. 2. Plants,

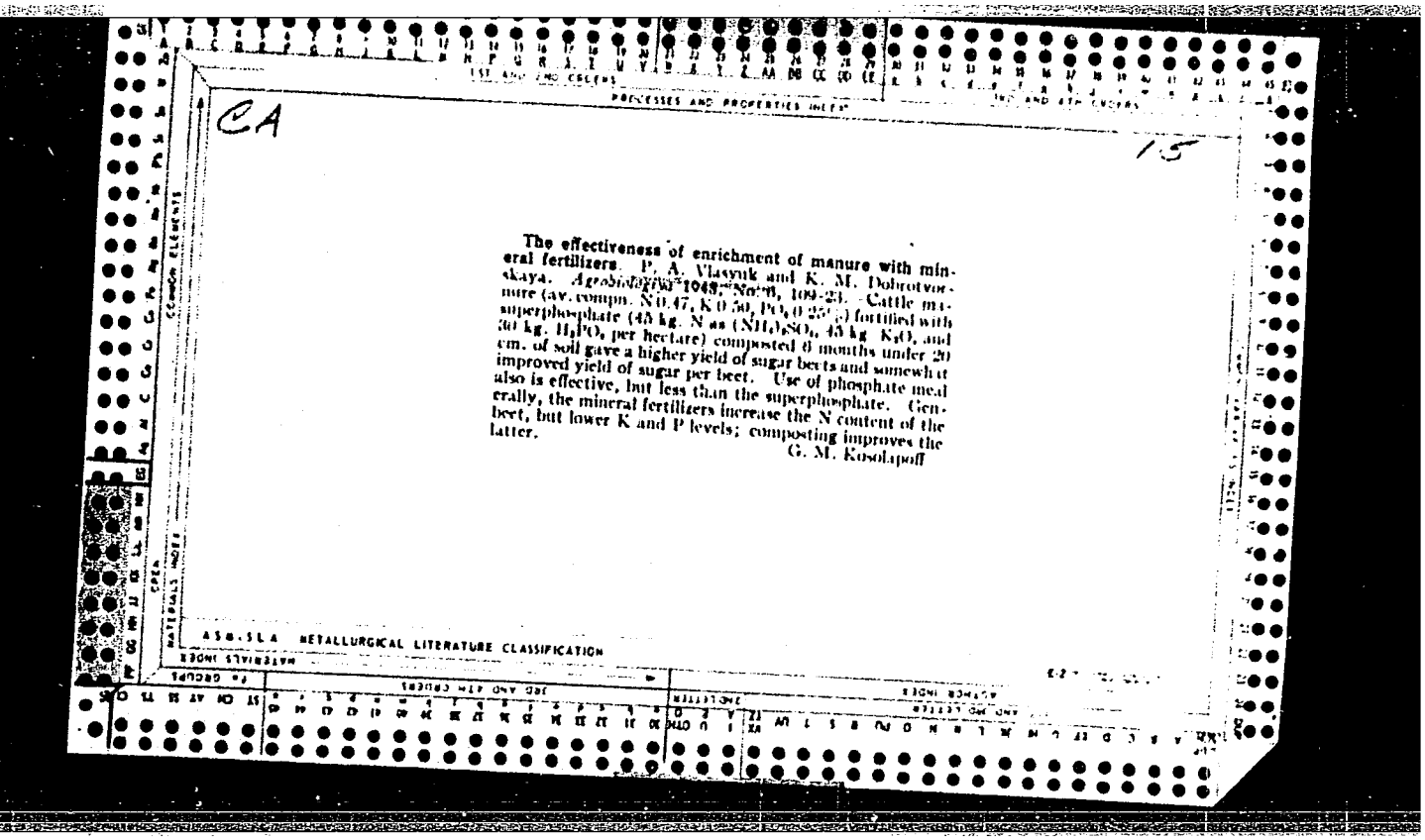


CA

15

Determining the loosely bound humic substances in chernozem and podzolized soils. P. A. Vlasyuk and A. I. Zrazhevskii. *Pedology* (U. S. S. R.) 1941, No. 1, 67-91.—A description of the Tyulin method of differentiating the loosely bound humic substances of 3 chernozem and 2 podzolized soils. In the chernozem this type of humic substance varies from 9.4 to 20.6% of the total org. matter and in 2 podzolized soils from 11.5 to 9.7%. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



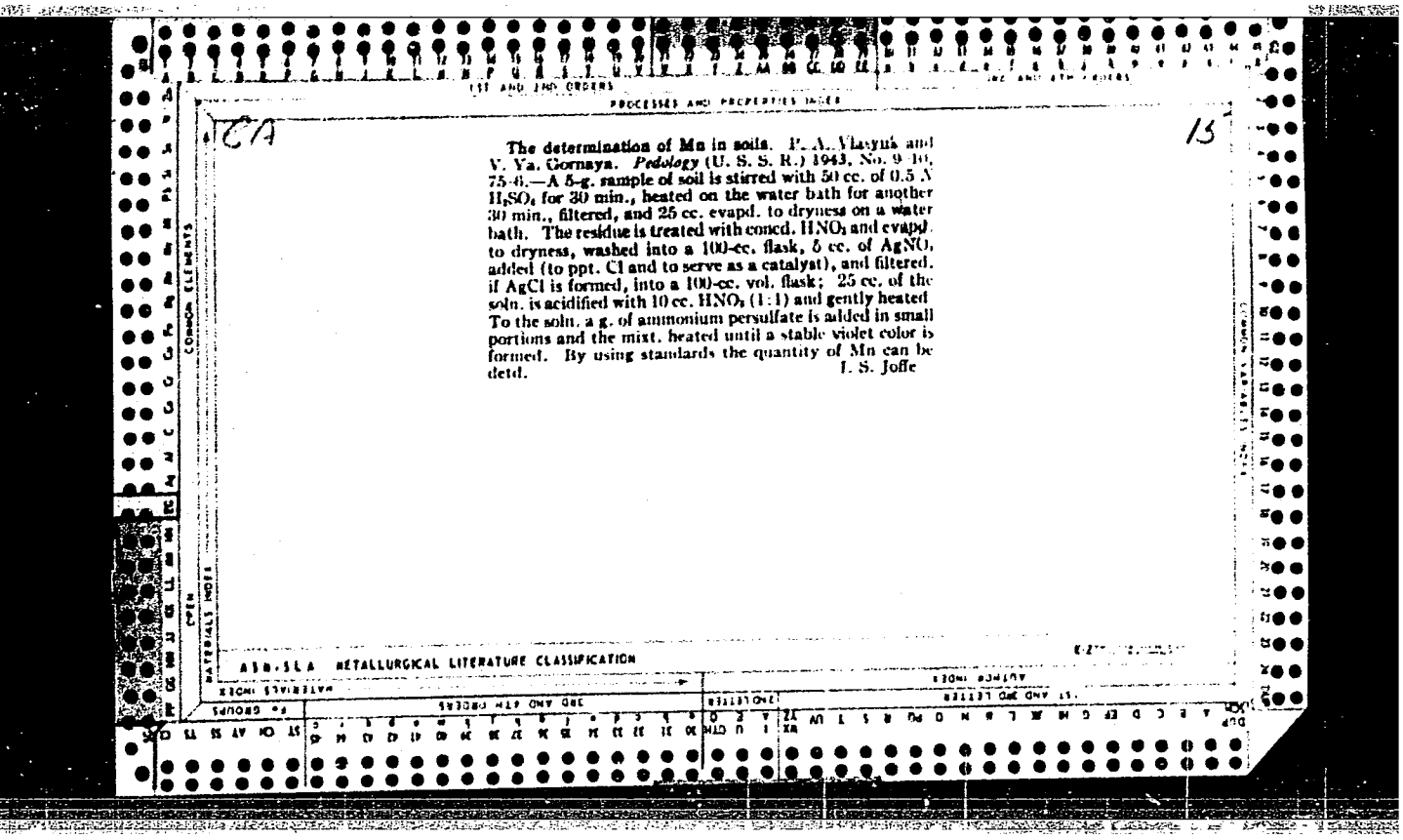
CA

15

The effectiveness of enrichment of manure with mineral fertilizers. P. A. Vlasyuk and K. M. Dobrotvorskaya. *Agrobiologiya* 1948, No. 6, 109-23.—Cattle manure (av. compn. N 0.47, K 0.50, P_2O_5 0.25%) fortified with superphosphate (45 kg. N as $(NH_4)_2SO_4$, 45 kg. K_2O, and 90 kg. H_3PO_4 per hectare) composted 6 months under 20 cm. of soil gave a higher yield of sugar beets and somewhat improved yield of sugar per beet. Use of phosphate meal also is effective, but less than the superphosphate. Generally, the mineral fertilizers increase the N content of the beet, but lower K and P levels; composting improves the latter.

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA 13

The determination of Mn in soils. P. A. Vlasyuk and V. Ya. Gornaya. *Pedology* (U. S. S. R.) 1943, No. 9-10, 75-6.—A 5-g. sample of soil is stirred with 50 cc. of 0.5 *N* H_2SO_4 for 30 min., heated on the water bath for another 30 min., filtered, and 25 cc. evapd. to dryness on a water bath. The residue is treated with concd. HNO_3 and evapd. to dryness, washed into a 100-cc. flask, 5 cc. of $AgNO_3$ added (to ppt. Cl and to serve as a catalyst), and filtered. if AgCl is formed, into a 100-cc. vol. flask; 25 cc. of the soln. is acidified with 10 cc. HNO_3 (1:1) and gently heated To the soln. a g. of ammonium persulfate is added in small portions and the mixt. heated until a stable violet color is formed. By using standards the quantity of Mn can be detd.

I. S. Joffe

VLASYUK, P. A.

20835. Vlasyuk, P. A. Vliyaniye margantsa i drugikh ingrediyentov iz otkodov margantsevorudnoy promyshlennosti na rost sel'skokho zyaystvennykh rasteniy. Sbornik nauch rabot (Vsesoyuz. Nauch. -issled. in T sakhar. Svekly). Kiger *Khar'kov, 1948, s. 167-76.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

VLASYUK, P. A.

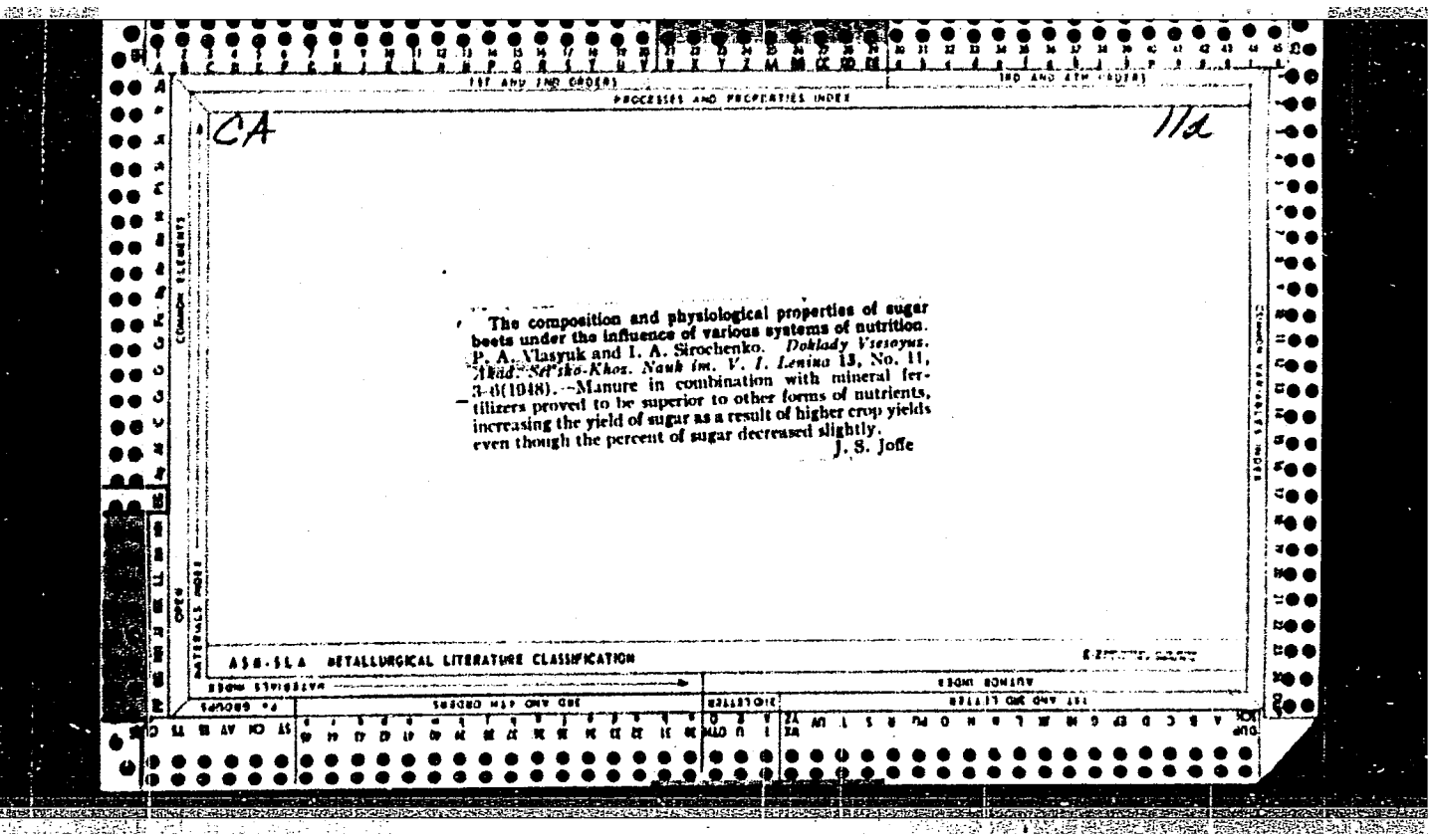
Vlasyuk, P. A. - "Improvement of the physiological properties, composition and quality of sugar-beet seeds under conditions of a longer day," Nauch. Trudy (Akad. Ukr. SSR, In-t fiziologii rasteniy i agrokhimii), No. 1-2, 1948, p. 198-209 - Bibliog: 12 items.

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

VLASYUK, P. A.

Vlasyuk, P. A. and Sapatyy, S. E. - "The effect of the various nutritional systems upon the physiological process of oxidizing ferments, the harvest, and the productivity of diverse varieties of beet sugar," Doklady Akad. nauk Ukr. SSR, No. 6, 1948, p. 7-15. (In Ukranian, resume in Russian)

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)



CA

11d

The composition and physiological properties of sugar beets under the influence of various systems of nutrition. P. A. Vlasyuk and I. A. Sirochenko. *Doklady Vsesoyus. Akad. Sel'sko-Khoz. Nauk im. V. I. Lenina* 13, No. 11, 3-6(1948).—Manure in combination with mineral fertilizers proved to be superior to other forms of nutrients, increasing the yield of sugar as a result of higher crop yields even though the percent of sugar decreased slightly.

J. S. Joffe

The utilization of brown coal in improving conditions for plant nutrition. P. A. Vlasyuk. *Agrobiologiya* 1949, No. 5, 80-9. Addns. of 1-5 g. brown coal increased the yield of rye, corn, barley, millet, peas, beans, and oats in sand cultures. Addns. of 20-30 kg. of brown coal increased the yield and sugar content of beets in field expts. Addn. of 40 g. of brown coal to 1 kg. of manure helped to retain the N of the manure. J. S. Joffe

VLASYUK, P.A.; KLIMOVITSKAYA, Z.M.

Effect of various types of potassium fertilizers on the synthesis of rubber and chemical composition of kok-saghyz. Nauk.zap.Kiev.un. 8 no.5:35-44 '49. (MLRA 9:10)

(Plants, Effect of potassium on) (Kok-saghyz)

CA

15

The specificity in the nutrition of perennial legumes and grass mixtures. P. A. Vlasyuk and K. M. Dobrotvorskaya. *Doklady Vsesoyus. Akad. Sel'sko-Khoz. Nauk im. V. I. Lenina* 14, No. 6, 53-60(1949).--A report on expts. with clover and timothy comparing animal and mineral fertilizers. I. S. Joffe

VLASYUK, P.A., akademik.

Results of reconstruction and tasks facing institutions of the Agricultural Department of the Academy of Sciences of the Ukrainian S.S.R. Visnyk AN URSR 21 no.1:38-52 Ja '49. (MLRA 9:9)

1. Golova Viddilu sil's 'kogospod[illegible]s 'kikh nauk AN URSR. (Academy of Sciences of the Ukrainian S.S.R.) (Ukraine--Agricultural research)

VLASYUK, P. A. (Acad.)

Stock and Stockbreeding - Ukraine

Carry out in an exemplary manner the three-year plan for the development of collective farm and state farm productive livestock-raising in the Ukraine. Visnyk AN URSR 21 No. 7, 1949.

9. Monthly List of Russian Accessions, Library of Congress, _____1953. Unclassified.

VLASYUK, P. A.

Agriculture

Agricultural and physiological bases of the nutrition of sugar beets. Kiev, Izd-vo AN Ukrainskoy SSR, 1950.

Monthly List of Russian Accessions, Library of Congress October 1952. Unclassified.

15

CIA

The mobile forms of manganese in the soil varieties of the Ukrainian S S R. P. A. Vlasyuk and I. L. Landenskaya (Ukrainian Acad. of Sci.). *Pochvovedenie* (Pedology) **1950**, 321-33. The analytical data on the mobile forms (extractable with 0.5 *N* H_2SO_4) and adsorbed Mn of the different zonal soil types and of their subtypes and varieties found in Ukraine are given. Southern (deep) chernozem contains large supplies of mobile forms of Mn (0.055-0.097%). The chernozem of the forest steppe contains 0.025-0.029% mobile Mn. The degraded and podzolized soils, especially in the forest steppe, have more mobile forms of Mn. The peat-podzolized soils and brown forest soils contain appreciable quantities of mobile Mn, but similar soils of the light sandy loams have a low supply of these forms of Mn. Peat-podzolized soils in forest have appreciable quantities of mobile Mn. Under conditions of fruit trees the Mn content is low. At the same time, in some areas the peat-slightly podzolized soils contain more mobile Mn than podzolized chernozem of the forest steppe. The sololized and solonchak soils are poor in mobile Mn. The slightly solonetzic and dark chestnut-brown soils of heavy texture are rich in mobile Mn. The application of Mn sources to the soils low in mobile and exchangeable Mn was effective in increasing yields. I. S. Joffe

CA

11D

Influence of the feeding system on the acceleration of growth and ripening of the cotton plant. P. A. Vlasyuk and I. M. Berenshtein. *Dopovidi Akad. Nauk Ukrain. R.S.R.* 1950, No. 1, 73-80.—Study was made of the effects of some substances on the growth of the cotton plant. Soaking seeds before sowing in 1% aq. $KMnO_4$ (I) increased yield by 221%; with $MnSO_4$ (II) the increase was 253.2%. I and II also improved germination decidedly and reduced peroxidase in leaves during blooming while catalase was not affected. Mn was found to be an important soil nutrient, others being decompd. org. matter, P, and N. N should be used as a mixt. of NH_4NO_3 (75%) and $NaNO_3$ (25%).

Murray Senkus

C A

D

Dynamics of carbohydrates, nitrogenous matter and activity of enzymes in connection with dietary condition of plants of meadow beet rotation crops P. A. Vlasyuk and Z. M. Klimovitskaya. *Izvest. Akad. Nauk S.S.S.R., Ser. Biol.* 1950, No. 3, 43–57.—Studies of rotation crops of wheat, kok-saghyz, and beets under field-scale conditions with mineral, org., or mixed fertilizers, showed the best effect of the latter group (highest enzymic activity and largest crops). Max. monosaccharides are found in winter wheat leaves in early spring (tubulation stage), with a drop during flowering; protein content declines at the end of vegetation. In summer wheat the max. monosaccharides are found during sprouting, especially with mineral diet; during tubulation the monosaccharides decline in favor of sucrose; amylase could not be found; peroxidase is high until flowering (in winter wheat the max. activity is in January). Protein content rises in the leaves largely at tubulation and flowering stages. In the beet the monosaccharides are initially low in the leaves and their amt. rises with age along with appearance of sucrose. Root amylase is low as is catalase; peroxidase activity is increased by mineral or org. diet. G. M. K.

17615

USSR/Biology - Plants, Nutrition Jul/Aug 50
Fertilizer

"Granulation -- A Method of Increasing the Effectiveness of Fertilizer," Acad P. A. Vlasyuk, Lab of Physiol of Nutrition of Plants, Inst of Physiol of Plants and Agrochem, Acad Sci Ukrainian SSR

"Agrobiologiya" No 4, pp 143-154

Conducts series of tests in regard to influence of granulation of superphosphate on effectiveness of its use as fertilizer. Finds by granulation of superphosphate effect of fertilizer

17615

USSR/Biology - Plants, Nutrition (Contd) Jul/Aug 50

on yield is increased by 2-3 times. Nine tables of test data.

17615

VLASYUK, P. A.

USSR/Biology - Plants, Nutrition
Fertilizers

Jul 50

"Effectiveness of the Application of Granulated Phosphates Before Planting Agricultural Crops," Acad P. A. Vlasyuk

"Dok v-s Ak Selkhoz Nauk" No 7, pp 13-19

PA 171T2

Data on increases in yield of sugar beets, corn, buckwheat, and potatoes as result of applying granulated superphosphate and granulated forms of other fertilizers when planting seed. Use of waste products of lignite industry with inorganic fertilizers on 15,600 hectares of sugar beets increased

USSR/Biology - Plants, Nutrition (Contd) 171T2

Jul 50

yield 6 - 8 centners per hectare in 1949. Seven tables. Submitted 8 May 50.

171T2

VLASYUK P. A.

USSR/Agriculture - Kok-Saghyz Aug 50

"Fertilizers as the Most Essential Factor in Increasing Yield and Improving Quality of Rubber-Bearing Plants," Acad P. A. Vlasyuk

"Visnyk Ak Nauk Ukrains'koy RSR" No 8, pp 54-59

Kok-saghyz and tau-saghyz are main rubber plants in Ukraine. Discusses effect of various natural and artificial fertilizers on quality and yield, in application to various soil types. Most of exptl results refer to kok-saghyz, described in more detail.

181T4

LC

VLASYUK, P. A.

Biologists

Kliment Arkad'evich Timiriazev and his studies (30th anniversary of his death). Nauk zap. Kyiv. un. 9 no. 7:5-12 '50.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

VLASYUK, P. A., DOBROTVORSKAYA, K. M., GORNAYA, V. Ia.

Fertilizers and Manures

Effectiveness of fertilizer on the harvest of winter wheat sown on black fallow soils, Nauk. zap. Kyiv. un., 9 No. 7, 1950

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED.

VLASYUK, P.A.

Granulation as a means of increasing effectiveness of organic and mineral fertilizers. Visnyk Akad. Nauk Ukr.R.S.R. 22, No.3, 22-40 '50.(MLRA 4:2)
(CA 47 no.22:12724 '53)

VLASYUK, P.A.; LENDENS'KA, L.D.

Content of mobile forms of manganese in various soils of Ukrainian R.S.R. Visnyk Akad. Nauk Ukr. R.S.R. 22, No.4, 28-41 '50. (MLRA 4:2)
(CA 47 no.22:12720 '53)

VLASYUK, P. A.

Science

Outstanding Russian scholar: soil scientist P. A. Kostychev, Kiev, USSR, AN, 1951.

Monthly List of Russian Accessions, Library of Congress October 1952. Unclassified.

1. VLASYUK, P. A., Acad.

2. USSR (600)

4. Michurin, Ivan Vladimirovich, 1855-1935

7. Useful beginning made by Soviet philosophers. Visnyk AN URSR No 2 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SKRYPKA, P.A.; VLASYUK, P.A., diysnyy chlen.

Dynamics of growth of the fruit of watermelons used for fodder. Dop.AN URSR no.3:202-208 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Ukrayins'ka n.-d. stantsiya vynohradarstva ta osvoyennya piskiv. Khersons'ka oblast', m. Tsyurupins'k (for Skrypka). (Melons)

USSR/Biology - Agriculture Aug 51

"Ukrainian Collective Farms," P. A. Vlasyuk, Act Mem, Acad Sci Ukrainian SSR, All-Union Acad Agr Sci imeni V. I. Lenin

"Nauka i Zhizn'" Vol XVIII, No 8, pp 14-16

Describes use of lignite residues in combination with inorganic fertilizers. States that manganese ore tailings from "Nikopol'-Marganets" trust are used extensively as fertilizer in the Ukraine. Mn fertilizers are dusted from planes on winter rye and wheat fields, and are also used on sugar beet fields. They increase yields of wheat by

203T3

USSR/Biology - Agriculture (Contd) Aug 51

3.2 centner per hectare and of rye by 2.5 centner per hectare. Mn was used on 25,000 hectares in 1950. This area will be increased to 200,000 in 1951. A new plant, an interspecies hybrid of Jerusalem artichoke and sunflower, is being introduced into large-scale cultivation. It yields both tubers and sunflower seeds.

203T3

VLASYUK, P. A.

1. VLASYUK, P.A. Acad.

2. USSR (600)

4. Ukraine-Agriculture

7. For the creative development in agricultural science in the Ukraine, Visnyk AN URSR 23 no.1, 1951.
UKSSR

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. VLASYUK, R. A., Acad.

2. USSR 600

4. Rubashevskii, A. A.

7. Useful beginning made by Soviet philosophers, Viznyk AN URSR, 23, No. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

CA

15

Accumulation of chlorophyll in plants under influence of various modes of fertilization in grass-field rotations. P. A. Vlasyuk and Z. M. Klimovitskaya (Acad. Sci. Ukrain. S.S.R., Kiev). *Doklady Akad. Nauk S.S.S.R.* 77, 909–12 (1951).—In field-scale expts. it was shown that in perennial grass-mixt. (hay) cultivation, the highest chlorophyll level is reached when fertilization is done with a mixed mineral-org. mixt. (20 tons manure, 30 kg. N and P, and 60 kg. K, per hectare). For winter wheat the same fertilizer is most effective although during the period of development just prior to flowering the chlorophyll level shows a decided decline. The highest sugar-beet yield results also from the org.-mineral fertilizer, as does the highest chlorophyll concn. which is attained in the middle of the vegetative period. Manure alone gave fairly high accumulation of chlorophyll and acts more rapidly than phosphate-K fertilizer. Phosphate in the presence of K from manure and with decreased utilization of N from manure shows a more pronounced pos. effect on sugar-beet yield than does the org.-mineral combination in which K predominates over P. The best yield of roots of kok-saghyz in weakly podzolic soils came also from org.-mineral fertilizer combination, but the yield of rubber was best when the above dosage was halved.

G. M. Kosolapoff

1951

1951

11D Botany

Activity of polyphenoloxidase in plants with different systems of fertilization. P. A. Vlasyuk and Z. M. Klimovitskaya. *Doklady Akad. Nauk S.S.S.R.* **77**, 1107-9(1951). — Four types of fertilizer application were used: control, in which 10 kg. N and K and 15 kg. P were introduced per ha. only into the rows; a mineral diet, in which the above was supplemented by general fertilization with 50 kg. N and P and 60 kg. K; org. type, in which 20 tons/ha. of manure was added besides the 1st treatment; and org.-mineral-type, in which 3rd and 2nd treatments were combined. Most tests were done with kok-saghyz and perennial grasses. The org.-mineral diet gave lowest polyphenoloxidase activity, but highest yield of plant product, in beet cultures. Other plants showed no change with diet. G. M. K.

Vlasyuk, P.A.

The application of manganese fertilizers in different soils for raising the productivity of agricultural plants. P. A. Vlasyuk. *Mikroelementy v Zhizni Rastenii i Zhivotnykh*; Akad. Nauk S.S.S.R., *Trudy Konf. Mikroelement.* 1950, 280-93(1952).—A brief review of the trace element properties of Mn in agriculture is followed by presentation of expt. results which indicate the following: In field trials with cotton plants it was shown that addn. of Mn to the soil increases plant productivity owing in part to the fact that Mn stimulates enzymic activity and acts as a prophylactic agent against diseases which affect plants suitable as fodder for the silkworm (leaf yellowing). Addn. of Mn ore powders at 20 to 100 kg./ha. for row cultures, or 1.5–3 centners (approx. 120 lb.)/ha. for basic fertilization in deep plowing are recommended; pure Mn salts can be used as well. Podzols require smaller doses; leached-out soils require more Mn. Presowing treatment of seeds with Mn solns. also aids plant productivity and hastens their sprouting.

G. M. Kosolapoff

VLASYUK, P. A.

Rotation of crops

System of nourishing agricultural crops in grassland crop rotations. Izv. AN SSR. Ser. biol., No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952 1953, Uncl.

VLASYUK, P.A., diysnyy chlen; KLYMOVYTS'KA, Z.M.

Agricultural and physiological characteristics of grass mixture components under plant nutrition systems in grassland crop rotation. Dop.AN URSR no.3: 213-218 '52. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Laboratoriya fiziolohiyi zhyvlennya roslyn Instytutu fiziolohiyi roslyn i ahrokhimiyi.
(Grasses) (Rotation of crops)

KALININ, F.L.; VLASYUK, P.A., diysnyy chlen.

Vegetative hybridization of grains by transplanting the embryo growing point. Dop.AN URSR no.3:219-224 '52. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Instytut fiziolohiyi roslyn ta ahrokhimiyi Akademiyi nauk Ukrayins'koyi RSR (for Kalinin).
(Grain) (Hybridization, Vegetable)

BORYSONIK, Z.B.; VLASYUK, P.A., diysnyy chlen.

Water consumption of spring wheat and barley under various conditions of plant nutrition. Dop.AN URSR no.3:225-228 '52. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Ukrayins'kyy naukovo-doslidnyy instytut zernovoho hospodarstva im. V.V.Kuybysheva (for Borysonik). (Wheat) (Barley)

SLUKHAY, S.I.; KOSTOMAROV, V.N.; VLASYUK, P.A., diysnyy chlen.

Effect of potassium permanganate on seed germination and early growth of certain species of trees. Dop.AN URSR no.4:289-294 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Instytut lisivnytstva Akademiyi nauk Ukrayins'koyi RSR (for Slukhay and Kostomarov).
(Trees) (Germination)

VLASYUK, P. A., KLIMOVITSKAYA, Z. M.

Grasses

Influence of the system of nourishment on physiological particularities of the varieties in a mixed grass crop. Dokl. Ak. sel'khoz. No.5,1952
Institut Fiziologii Rasteniy I agrokhimii Akademii Nauk USSR rcd. 12 Feb. 1952

SO: Monthly List of Russian Accessions, Library of Congress, August, 1952 [illegible], Uncl.

POLYEVOY, V.V.; VLASYUK, P.A., diysnyy chlen.

Additional sulfur compound fertilization around the roots of sugar beets as a method of controlling mealy bugs. Dop.AN URSR no.5:420-423 '52.
(MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Kyrgyz'ka doslidno-selektsiyna stantsiya tsukrovykh buryakiv (for Polyevoy).
(Beets and beet sugar) (Mealy bugs)

VLASYUK, P.A.; ACAD.: DOBROTVORSKAYA, K.N.

Wheat

Effect of fertilizers on the harvest and quality of winter wheat. Sov. agron. 10, No. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED

1. VLASYUK, P. A., LISOVAL, P.Z.

2. USSR (600)

4. Beets and Beet Sugar - Ukraine

7. Effect of various forms of potassium and other types of fertilizer on the yield of cotton and sugar beets under irrigation farming in the southern Ukraine. Sov. agron. 10, no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

1. VLASYUK, P. A.; KLIMOVITSKAYA, A. M.

2. USSR (600)

4. Cotton

7. Effect of forms of potassium fertilizers on the formation of carbohydrates and the content of various forms of phosphor in cotton plant under irrigation, Dokl. AN SSSR, 87, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

VLASYUK, P.A.; KHOMENKO, A.D. [Khomenko, O.D.]

Influence of menilite shales on plant growth, on the yield and sugar content of sugar beets and cotton yields. Pratsi Inst. agrobiol. AN URSR 2 [pt. 2]:53-62 '53. (MIRA 11:7)
(Sugar beets)
(Cotton)
(Shale)

DMYTRENKO, P.O.; BOYKO, O.V.; VLASYUK, P.A., diysnyy chlen.

Effect of reduction-oxidation processes on the conversion of phosphates in soil. Dop.AN URSR no.3:163-166 '53. (MLRA 6:6)

1. Ukrayinskyy n.-d. instytut sotsialistychnoho zemlerobstva. 2. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). (Phosphates) (Soil chemistry)

KEKUKH, O.M.; VLASYUK, P.A., diysnyy chlen.

Effect of magnesium salts in additional use of fertilizers around the root system, on the formation of potato tubers. Dop. AN URSR no.3:168-171 '53. (MLRA 6:6)

1. Ukrainskyy viddil Vsesoyuznoho sil'skohospodars'koho tovarystva (for Kekukh). 2. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk).
(Plants, Effect of minerals on) (Potatoes)

VLASYUK, P. A.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Soils and Fertilizers

(2)

The content of different forms of manganese compounds in soils of the southern provinces of Ukraine and Moldavian Republic. P. A. Vlasyuk and L. D. Lebedenskaya. *Pochvovedenie* 1953, No. 4, 1–14.—Water-sol., exchangrable, and mobile (sol. in 0.5*N* H_2SO_4) Mn were detd. on chestnut-brown and southern chernozem solonetz in various stages of solonetzicity. The samples were taken generally at 2 depths. Similar detns. were made on regular chernozem and dark chestnut-brown soils. The samples were taken in fields of different cropping systems. The results show that the Mn content varies in soils with the crops, locality, moisture content, pH, parent material, and length of time in cultivation. J. S. Joffe

DMYTRENKO, P.O.; SHTURMOVA, V.S.; VLASYUK, P.A., diisnyi chlen Akademiyi nauk URSR.

Effectiveness of phosphorus and nitrogen depending on their location in relation to the plant root. Dop.AN URSR no.4:244-248 '53. (MLRA 6:8)

1. Ukrayins'kyi naukovo-doslidnyi instytut sotszemlerobstva. 2. Akademiya nauk URSR (for Vlasyuk).
(Plants, Effect of nitrogen on) (Plants, Effect of phosphorus on)

HURYL'OVA, M.A.; VLASYUK, P.A., diysnyy chlen.

Study of the formation of the principal structural elements of ears of wheat. Dop.AN URSR no.5:355-361 '53. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Vlasyuk). 2. Instytut genetyky i seleketsiyi Akademiyi nauk Ukrayins'koyi RSR (for Huryl'ova). (Wheat)

VLASYUK, P.A.; DOBROTVORSKAYA, K.M.; GRIBANOV, V.M.

Distribution and activity of Azotobacter in the irrigated and nonirrigated district of the southern Ukraine. Nauk.zap.Kiev.un.12 no.7:13-20 '53. (Ukraine--Azotobacter) (MLRA 9:10)

VLASYUK, P.

[Achievements and urgent tasks on agricultural biology] Dostiahnennia i nevidkladni zavdannia agrobiolohichnoi nauki. Kyiv, Akademiia nauk URSR, 1954. 61 p. (MIRA 10:12)

(Biological research)

Vlasyuk, P.A.

The influence of various forms of potassium fertilizers on the carbohydrate metabolism in plants under the conditions of crop rotation. P. A. Vlasyuk and Z. M. Klimovitskaya. *Dopovidi Akad. Nauk Ukr. R.S.R.* 1954, 87-92 (Russian summary, 93).—The addn. of KCl to N + P fertilizer increased the winter-wheat crop by 12%, K_2SO_4 by 7.9%, and the addn. of both (half of each) by 13.1%. The chlorophyll also increased in all the stages on the addn. of K salts. In sugar beets the crop was increased by 10% with KCl, by 15.5% with K_2SO_4, and by 15% with both salts added. The leaves, on May 25, June 25, and July 25, had monose and sucrose, resp., with N + P alone (% on dry basis) 1.41, 1.42; 2.06, 0.84; 5.04, 0.86; KCl, 1.72, 1.12; 2.78, trace; 5.10, trace; K_2SO_4, 1.38, trace; 2.13, 0.77; 4.50, 1.75; both added, 1.81, 1.13; 1.98, 0.27; 5.76, 0.43. The roots, on May 25 and June 25, resp., with N + P alone, 1.22, 4.61; 0.36, 5.35; KCl, 1.23, 3.03; 0.72, 5.54; K_2SO_4, 1.14, 3.18; 0.20, 7.38; both added, 1.34, 3.06; 0.40, 7.52. There was a greater amt. of monose in the roots in the earlier stages than in the later, indicating its conversion to sucrose. In *Menyanthes trifoliata*, during flowering and harvest, resp., the amt. of monose and sucrose, resp., in the leaves, with N + P alone, 0.6, 2.34; 1.50, trace; KCl, 1.76, 3.09; 1.36, —; K_2SO_4 2.20, trace; 1.14, 0.41; both added 1.26, 1.27; 1.80, 0.36; in the stems, N + P, 3.40, 1.60; 0.42, 1.78; KCl, 3.02, 1.70; 0.62, 1.06; K_2SO_4, 3.20, 1.26; 0.60, 1.44; both added, 3.20, 126; 0.60, 144. Total crop for the 4 fertilizers, resp., 16.3, 18.1, 20.3, 20.5.

B. Gutoff

(1)

VLASYUK, P. A.

4625. Doctizheniya i neotlozhnyye zadachi agrobiologicheskoy nauki. Kiyev, Izd-vo akad. nauk ussr, 1954. 64 c. 20 cm. (Akad Nauk. Ukr. SSR. Sovet Nauch, Tekhn. Propagandy). 8.000 ekz. 90 K. Bibliogr: 60-62 Na Ukr. Yaz.- (54-57826)

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

VLASYUK, P.A.

USSR/ Agriculture - Fertilizers

Card 1/1 Pub. 138 - 4/10

Authors : Vlasyuk, P.A. Act. Memb. of Ukr. Acad. of Sc.; Kartashov, A.K.; Sirochenko, I.A. and Glukhovskiy, I.E.

Title : Effect of various potassium fertilizers on the quality and productivity of sugar beets under irrigation conditions

Periodical : Visnik AN URSR 1, 32-43, Jan 1954

Abstract : The difference in the effect of potassium sulfate and potassium chloride fertilizers, during the early stages of growth of sugar beets, is discussed. The favorable effect of potassium fertilizers on the quality and yield of sugar beets, planted in irrigated fields, is described. Tables.

Institution: .....

Submitted: .....

Vlasyuk, P.A.

VLASYUK, P.A.; KLIMOVITSKAYA, Z.M.

Effect of different forms of potassium fertilizers on the carbohydrate metabolism of plants under crop rotation. Dop. AN URSR no.2:87-93 '54. (MIRA 8:4)

1. Deystvitel'nyy chlen Vsesoyuznogo nauchno-issledovatel'skogo instituta mekhanizatsii i elektrofikatsii sel'skogo khozyaystva (fo Vlasyuk)
2. Institut fiziologii roslin ta agrokhimii AN URSR.
(Plants—Metabolism) (Fertilizers and manures) (Carbohydrate metabolism)

VLASYUK, P. A.

USSR/Agriculture - Biology FD 278

Card 1/1

Author : Vlasyuk, P. A., Lendenskaya, L. D., and Kibalenko, A. P.

Title : Leaf and stem feeding of manganese supplements to agricultural plants

Periodical : Izv. AN SSSR. Ser. biol. 3, 19-31, May/Jun 1954

Abstract : It has been shown experimentally that the needs of truck crops for manganese sulphate and superphosphate supplements can be satisfied by having their leaves and stems absorb solutions of these chemical elements in water. Results of the use of 800 liters per hectare of planted land of 0.05-0.1% solutions of manganese sulphate, and superphosphate in 1 : 10 ratio in water, potato yield increased by 59.6% and sugar beet yield increased by 16.8%. Tabulated reports accompanying this article show the results of the use of this method of feeding of plants which failed to mature fully in certain soils. Ten tables. Twenty six references, all USSR.

Institution :

Submitted : February 13, 1954

VLASYUK, P.A.

15123* (Enriching Fertilizer and Use of Biologically Enriched Composts.) Obogashchenie navoza i ispol'zovanie biologicheskI obogashchennykh kompostov. P. A. Vlasiuk and A. V. Manorik. *Agrobiologiia*, 1954, no. 3, July-Aug., p. 24-32.

Effect of azobacterine and other additions on compost. Effect of such composts on crops. Tables. 8 ref.

Content of mobile forms of zinc and boron in the soils of Ukraine. P. A. Vlasyuk and V. A. Zimina (Kiev Univ.). *Pochvovedenie* 1954, No. 5, 11–26.—In loess parent material the general run of mobile Zn varies from 1.75×10^{-4} to 2.9×10^{-4}% and in some loess it is 9.74×10^{-4} to 11.71×10^{-4}%. The variations are ascribed to the differences in adsorption capacity of the material and satn. with other cations. In podzolized and solonetzic soils Zn accumulates in the *B* horizon. In it the Zn content is greater than in parent material. The A_1 layer also contains more Zn than the underlying mineral horizon. The highest quantity of Zn is encountered in the solonchacic and solonetzic soils. The lowest quantity of Zn is found in the cultivated strongly podzolized soils. In sod-podzolized soils on limestone parent material the Zn seems to be fixed. In chernozem and gray forest soils there is more Zn than in the strongly podzolized soils. The Zn is evenly distributed in the profile. A slight accumulation in the upper rich-in-org.-matter horizon is noted. As to B, the podzolized soils contain the least with a slight accumulation in the *B* horizon. The chernozem and gray forest soils contain about the same quantity of B, but more than the strongly podzolized soils. The solonetzic varieties of chernozem contain the highest quantities of B, 1.1×10^{-4} to 3.7×10^{-4}%. In typical solonetz and solonchak the quantity of B may go up to $3.0–8.9 \times 10^{-4}$%.

J. S. Joffe

VLASYUK, P. A.

USSR/Agriculture - Fertilizers

Card 1/1 : Pub. 138 - 2/11

Authors : Vlasyuk, P.A., Act. Memb. of Acad. of Sc. Ukr-SSR

Title : Utilization of local fertilizer resources for increasing the crop of agricultural products

Periodical : Visnik AN URSR, 8, 14-22, Aug 1954

Abstract : Recommendations on thorough utilization of local fertilizer resources for increasing the crop of agricultural products. The economical aspects of the recommendation, are discussed.

Institution : ...

Submitted : ...

The effect of manganese nutrition on [illegible]

described. The plants were supplied with Mn [illegible]

VIASYUK, P.A.; KOSMATIY, E.S.; KLIMOVITS'KA, Z.M.

Application of radioactive tracers in improving the system of plant nutrition conditions. Visnyk AN URSR 25 no.11:43-53 N '54. (MLRA 8:2)
(Plants--Nutrition)(Radioactive tracers)

VLASYUK, P.A.

[Nutrition of and fertilizer application to plants] Zhivlennia ta udobrennia roslin. Kyiv, Vyd-vo Akademii nauk Ukrains'koi RSR, 1955. 190 p. (MIRA 12:11)

1. Akademiya nauk Ukrainskoy SSR. Institut fiziologii rasteniy i agrokhimii.
(Fertilizers and manures) (Agricultural chemistry)