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*USSR—Current Status of 1977
Grain Crop*

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USSR: Current Status of the 1977 Grain Crop

Summary

1. Soviet winter grain production is expected to be well above the record 63½ million tons harvested in 1973. Normally winter grains account for about 30 percent of the total Soviet grain production.
2. Winterkill losses have been lower than normal with most of the significant damage occurring in parts of the Non-Chernozem Zone and North Caucasus.
3. Conditions for sprouting and early development of spring grain also appear favorable. However, with at least one-fifth of the spring grains remaining to be sown, it is too early to estimate the size of the total harvest.

Note: This paper was produced by the Office of Geographic and Cartographic Research and coordinated with the Office of Economic Research. Comments and questions may be directed to [REDACTED] Code 143, Extension 3748. Date of information 25 May 1977.

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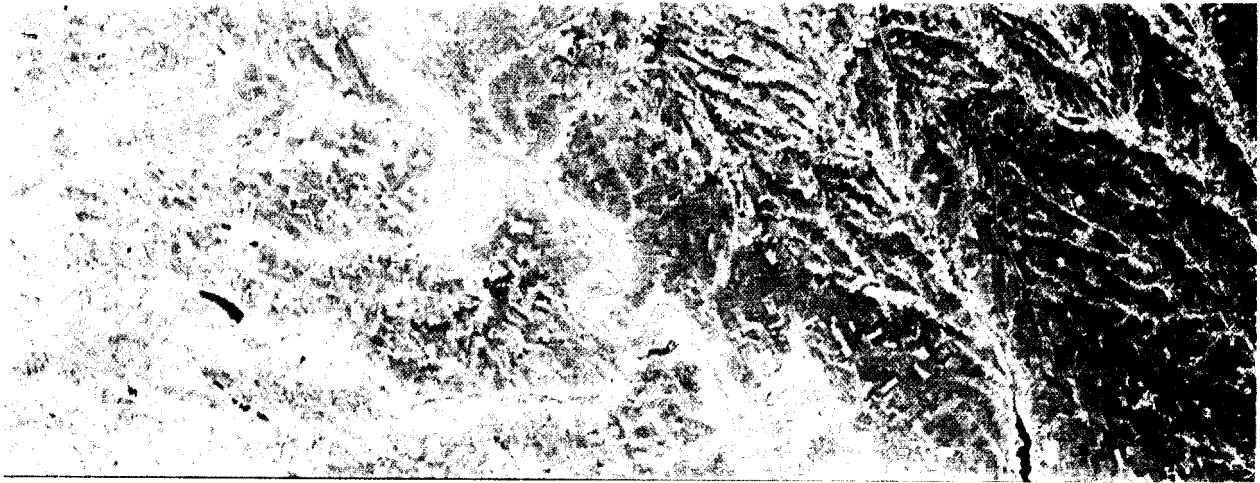
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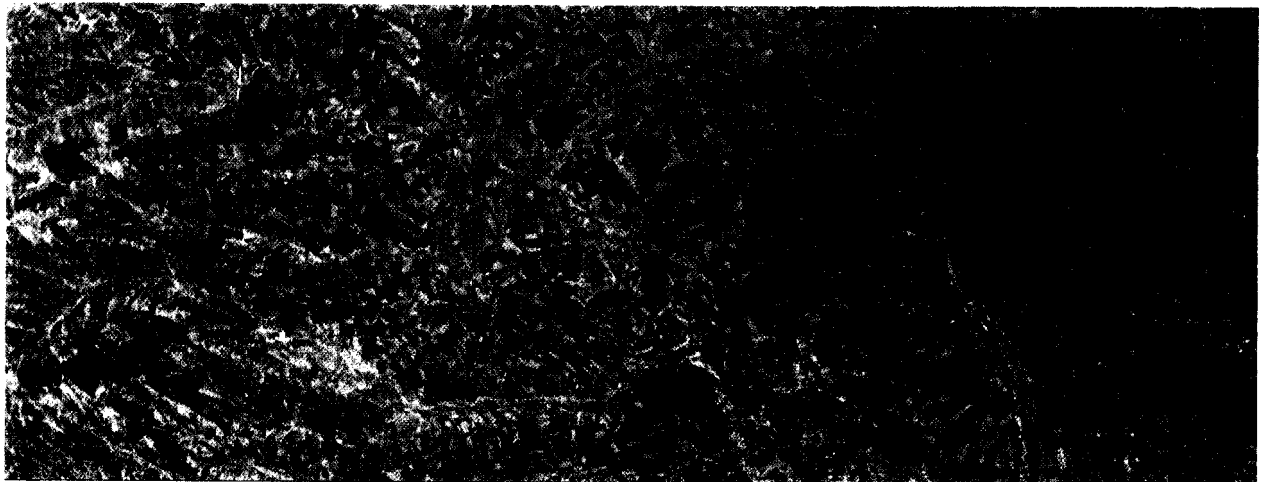
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Landsat II Imagery, Spring 1976, UKRAINE



Low infrared reflectance (IR) indicates lack of vegetative vigor in 1976 winter grains. Most of these crops were winterkilled.

Landsat II Imagery, Spring 1977, UKRAINE



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Good IR-return over the same area this year indicates excellent plant vigor in the winter grains.

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I. Status of Winter Grains

As of late May prospects appear excellent for a bumper 1977 Soviet winter grain crop. Final production is expected to be well above the previous record of 63½ million tons and could reach 70 million tons. However, unusually wet growing conditions throughout much of European USSR have promoted instances of plant diseases such as downy mildew and weed infestation that will probably prevent the higher end of this range.

Winter grains, mostly wheat and rye, were sown last fall on 38½ million hectares, the largest area since 1968, and one million hectares greater than in 1976 (see table). Most of the expanded acreage appears to have been winter wheat, particularly in the Ukraine where it was sown on over 10 million hectares. Larger areas of winter wheat were also reported in Moldavia, Belorussia and the North Caucasus (see map).

Development of the winter grains has been near normal during the spring with heading now taking place in most oblasts of the Ukraine and North Caucasus. Some harvesting of winter grains, mostly barley, is now occurring in both Southern Kazakhstan and Central Asia.

II. Winterkill

Most of the winter grains went into dormancy in very good condition with favorable plant development and high soil moisture reserves. As a result, winter losses are not expected to exceed 10 percent.¹ Normal winter grain losses in the USSR average about 15 to 20 percent.

Most of the significant damage occurred last October in parts of the Non-Chernozem Zone and North Caucasus when temperatures dropped as low as minus

¹ The 6.8 million hectares that appears in the table as 1977 winterkill includes approximately 3 million hectares of unripened grain harvested as "green chop" for feeding livestock.

USSR: Winter Grain Data

	Million Hectares ¹		
	Area Sown	Area Harvested	Winterkill ²
1968	40.2	32.8	7.4
1969	37.7	24.5	13.2
1970	37.2	29.8	7.4
1971	36.1	31.5	4.6
1972	34.9	24.4	10.5
1973	28.4	26.9	1.5
1974	37.0	29.8	7.2
1975	35.5	29.2	6.3
1976	37.5	27.4	10.1
1977 ³	38.5	31.7	6.8

¹ State and collective farms as well as private holdings and other State enterprises.

² Includes acreage intended for green chop in the spring.

³ Estimated totals.

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USSR: Major Spring and Winter Grain Area



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Spring and winter grains Spring grains Economic region boundary

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12°C. At this early stage of germination, and without protective snow cover, most of the fall-sown grains had not yet developed a sufficient hardness to withstand the low temperature. Improved conditions later that month permitted some reseeded in the North Caucasus; however, imagery taken this spring showed substantial winter-killing on both the original and replanted seedings. Nevertheless, further reseeded with lower-yielding spring grains should partially offset most of the winter losses.

Some low temperatures in early January affected winter crops in the Ukraine but damage was apparently very light (see imagery).

III. Status of the Spring Grains

It is still too early to predict spring grain production; however, the outlook for spring grains at this time is not as favorable as the winter grain crop. Spring grain sowing which had picked up in early May has now started to fall slightly behind. By 23 May grain and pulse crops (excluding corn) have been seeded on about 80 million hectares, somewhat lower than the average in recent years.

Much of this delay is probably the result of sharply restricted fall-plowing, especially in the Non-Chernozem Zone. If the delay persists spring crop yields could be lower in the affected regions.

Because of this year's large area of surviving winter grains, spring barley, the normal replacement crop for winterkilled grains, will not be planted as extensively as it was in 1976. Tending to confirm this was the Ukraine spring barley plan of 2.5 million hectares, its lowest since 1973.

One potential problem that currently exists in the spring grain region is a subsoil moisture deficiency in both the southern Urals and parts of Kazakhstan. As a result, yields in these areas will largely depend on rainfall from now through July. Spring grains east of the Volga are grown primarily in low moisture areas and moisture deficiency is the major factor limiting yields.

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