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National Foreign Assessment Center

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USSR: Late Spring Outlook for Grain Production and Trade

An Intelligence Assessment

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**USSR:
Late Spring Outlook for
Grain Production and Trade**

Key Judgments

Heavy rains last fall and cold, wet weather this spring have already put the goal of a 236-million-ton grain crop this year all but beyond reach. The central and northern regions of the European USSR were hardest hit by the bad weather, which has forced record delays in spring sowing. Conditions are generally good, however, in the "new lands" east of the Urals, the main spring grain region.

Although estimates made this early in the crop season are necessarily tentative, with normal weather from now on, a total harvest slightly above the 205-million-ton average of recent years seems likely. With excellent weather, a crop of 225 million tons is possible.

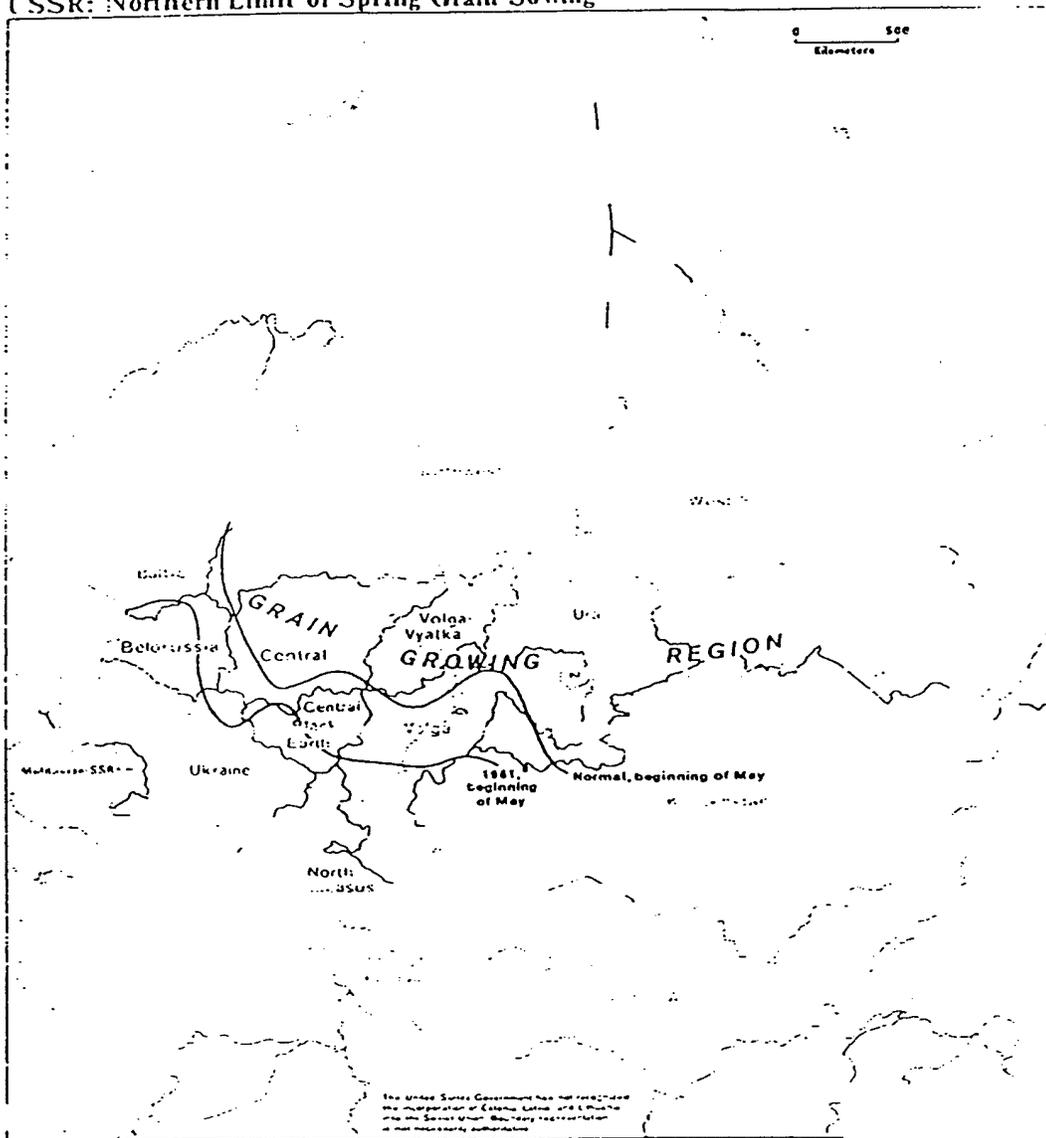
Despite the grain embargo, Soviet imports will reach record levels this year. By 30 September Moscow will probably have purchased about 35.4 million tons of grain, as well as some 3 million tons of soybean products and manioc and 2.5 million tons of wheat flour.

Even with good crops in 1981 and succeeding years, Moscow will need to import 20 to 30 million tons of grain annually. The Soviets have already lined up contracts guaranteeing them access to at least 15 million tons of non-US grain next year and 10 to 14 million tons annually in later years.

This demonstration of its ability to obtain large amounts of grain when shut out of the US marketplace will permit Moscow to take a tough stance in the grain talks with the United States scheduled to begin next week in London. The Brezhnev regime would nevertheless feel more comfortable with a new long-term grain agreement with the United States. If its other suppliers had bad crop years, Moscow would want an assured supply of grain from the United States to fall back on.

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USSR: Northern Limit of Spring Grain Sowing



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USSR:
Late Spring Outlook for
Grain Production and Trade (U)

The 1981 crop season in the USSR is off to a slow start. Fall-sown crops are barely out of dormancy in several key regions; spring planting in much of the European USSR was delayed by cold, wet weather; and planting has only recently begun in the eastern grainlands—the main spring wheat area. Although it is too early in the season to estimate the likely size of the 1981 grain harvest, the target of 236 million tons already appears out of reach.

Weather Problems

In the European USSR spring arrived on time in early April, but—except in the south, where warmer than average conditions have prevailed—the weather then deteriorated. In the northern and central regions, frost and freezing rain occurred almost daily in mid- and late April. Although such weather is somewhat unusual, the USSR experienced similar conditions in the springs of both 1978 and 1980. In those years as well, the spring warming trend was interrupted by cold, wet weather; precipitation was 20 to 25 percent above normal, and average temperatures were 3 to 4 degrees Celsius below normal. The consequences differed markedly, however:

- In 1978, the upper air regime was transitory and produced a series of swiftly moving storm systems. Frequent and heavy rains were followed by rapid clearing and ample sunshine; soil moisture was near optimal. A record grain crop of 237.4 million tons resulted.
- In 1980, most of the season was dominated by a deep low-pressure system located between the Ukraine and the Urals. Skies were consistently overcast and rainfall was persistently heavy. The soils became and remained waterlogged, and extensive areas were covered by standing water. These conditions held the total grain output to 189 million tons, some 48 million tons less than in 1978.

Thus far in 1981, the weather in the south has resembled that of 1978, while the weather in the northern and central regions has resembled that of 1980. Although it remains to be seen what the weather will be during the rest of the crop year, a total harvest somewhere between the results of 1978 and 1980 seems indicated.

Winter Grains

Problems with the 1981 winter grain crop began last October, when prolonged heavy rains seriously impeded seeding operations and eventually brought them to a premature close. In the country as a whole, only 35 million hectares of winter grains were sown, 3 million hectares less than the area planned and 2.4 million hectares less than the average of the previous five years. Although the weather was generally mild from December through March, in much of the northern winter grain area the plants that survived the winter were thin and underdeveloped, a consequence of the late sowing. This spring the heavy rains washed away top dressings and damaged many stands of grain, especially in parts of the northern Ukraine and Central Black Earth Region. In late April a blizzard in the Moscow area dumped several inches of snow on grainfields that had already emerged from dormancy. In these regions even average yields will be difficult to obtain.

Despite the problems in the north, however, the prospects for the winter grain crop as a whole are still better than average. Growing conditions have been very good in the south, where the most productive winter grain regions are concentrated.

Not only that the total area sown to winter grains was larger than usual, but that more of the crops survived the winter than usual, owing to the mild weather. Moreover, the bulk of the winter grain planted in the south was wheat, the highest yielding of the winter grain.

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Table 1

USSR: Winter Grains *

	Area Sown	Area Harvested	Winterkill ^b (Percent)	Production (Million Tons)	Yield (Tons Per Hectare)
	<i>(Million Hectares)</i>				
1971-75	34.4	28.4	17	55.6	1.96
1976	37.5	27.5	27	61.0	2.22
1977	38.5	28.9	25	63.5	2.20
1978	38.5	32.3	16	85.9	2.66
1979	34.5	26.5	23	49.3	1.86
1980	38.0	32.7	14	(62.0)	(1.90)
1976-80	37.4	29.6	21	(64.3)	(2.17)
1981	(35)	(30.5)	(13)	(65-70)	(2.24)

* Winter wheat, winter rye, and winter barley.

^b Including areas green-chopped for forage.

Partheses indicate estimates.

Throughout the winter grain regions the winterkill was low. Thus, even though the original sown area was smaller than average, the total harvested winter grain area is likely to be 30 to 31 million hectares, as much as 1.5 million hectares larger than average. Furthermore, because the mix of winter grains is somewhat richer in wheat than usual, the average yield should be somewhat better than usual.

Spring Grains

Normally, the spring sowing campaign begins in early April in the southern European USSR and then progresses northward and finally eastward into the grainlands beyond the Urals. The 1981 sowing campaign started on time, but the mid-April bout of cold, wet weather brought planting to a standstill throughout the central European USSR. During the first month, although seeding continued in Belorussia, in parts of the upper Volga Valley, and in many southern areas, in the country as a whole the average daily seeding rate was roughly 60 percent below the historical average. By the first week in May the pace of spring fieldwork had actually fallen behind that of 1980 when the crops got off to the worst start on record until now. Furthermore, where the rains were excessive, vital nitrogen was leached from the soil, retarding early plant development and limiting ultimate yields.

In the Central Black Earth Region and to a lesser degree in parts of the Central and Volga Vyatka Regions, the seeding was also delayed by problems resulting from the premature halt in cropping operations last fall. Before spring seeding could proceed, in some areas fields of standing grain needed to be cleared away; in other areas wind-damaged grain and stubble had to be plowed under.

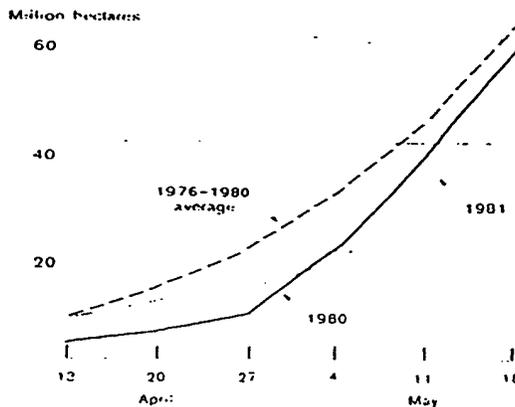
If good weather returns, most of the damage caused by excessive moisture can be overcome by applying more fertilizer (if enough fertilizer is available). The 10- to 14-day planting delays, however, have jeopardized the spring grain crops in the central and northern European USSR. Grain sown too late will flower in the summer, when high temperatures can lead to plant sterility, reducing yields. In some areas late planting may leave an immature crop vulnerable to an early frost next fall. The spring barley crop is especially at risk. Because the poor harvests in 1979 and 1980 left some areas unusually low on seed stocks, a significant portion of the spring barley area has probably been sown with nonregionalized southern seed varieties. Since these varieties were developed for warmer, drier climates with longer growing seasons, even a moderate deterioration in conditions would cut barley yields.

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USSR: Pace of Spring Grain Sowing



In contrast to the European USSR, in the "new lands" region east of the Urals, no unusual difficulties have surfaced yet this year. The soil moisture levels there are good, and the spring sowing has proceeded pretty much according to the normal rigorous planting calendar that extends from mid-to-late May. (It is desirable for the crop to be in the ground by the end of May so that it can benefit from the usual early summer rainfall.)

A Preliminary Outlook

The 1981 target of a 236-million-ton grain harvest is close to the record output achieved in 1978—a year in which just about everything went right for Soviet farmers. That year nearly 86 million tons of winter grain were harvested—35 percent more than any year before or since. Because of the bad weather both last fall and this spring, a winter grain harvest even approaching that record will be impossible to achieve in 1981.

Earlier this spring, we estimated Soviet winter grain output this year at around 64 million tons. As a result of the recent evidence of unusually heavy plantings of wheat in the southern grain belt, however, we now project total winter grain output at 65 to 70 million tons. Although well short of the 1978 record, a crop of that size would be the second-largest Soviet winter grain harvest ever.

It will be several weeks before a sound estimate of 1981 spring grain production is practicable. Planting has barely begun in some areas. It is already clear, however, that if the Soviets are to achieve their overall production target this year, spring grain output would have to exceed the previous record (163 million tons in 1976) by several million tons to make up for the shortfall in winter grain output. Given the extremely late start and slow development of many of the spring grain crops, a record performance is very improbable—even with favorable weather. At this early stage, a good harvest with production in the range of 140-155 million tons seems more likely, although bad weather in the coming months could reduce output well below this range.

In summary, the current conditions augur average or somewhat above-average yields but not record yields this year. Soil moisture, one of the principal limiting factors, is generally good throughout the grain region. As usual, the weather during June and July will largely determine the size of the crop:

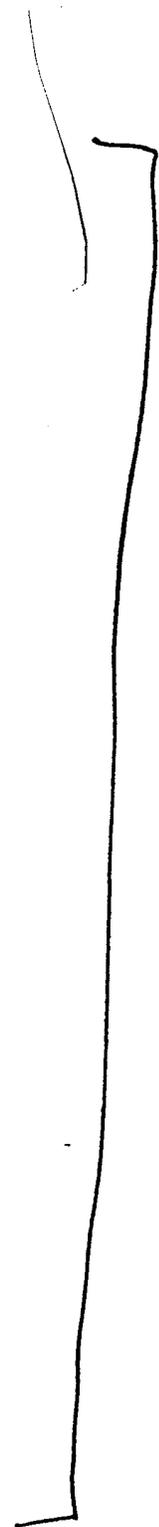
- With normal weather the rest of the year, a total grain harvest slightly above the 205-million-ton average of the past five years is likely.
- With excellent weather from now until harvest, a crop of perhaps 225 million tons is possible.
- Should conditions turn markedly worse, especially in the spring grain regions, a third consecutive poor crop would result.

Record Imports This Year

Because of the poor 1979 and 1980 harvests, even if the 1981 harvest is better than average, Moscow must rely on large amounts of foreign grain if it is to follow through with its plans to improve domestic food supplies. Despite the only recently lifted U.S. grain embargo, we expect the USSR to import about 35.4

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million tons of grain—a record amount—during the marketing year that ends 30 September 1981, the date on which the current five-year US-USSR Long-Term Grain Agreement (LTA) expires. So far, Moscow is known to have contracted for 32.5 million tons of grain to be delivered by 30 September, including the 8 million tons from the United States guaranteed it under the LTA.

Moscow has also bought for delivery before 30 September some 2 million tons of soy products, mainly from Argentina and Brazil, and 500,000 tons of manioc from Thailand. Expected additional purchases are likely to bring the total of such nongrain imports up to some 3 million tons. Furthermore, the Soviets have purchased about 2.5 million tons of wheat flour, probably to help overcome the serious shortage of potatoes that resulted from last year's disastrous crop. And on top of all that, the Soviets are expected to import record amounts of meat, vegetable oil, and sugar this year.

Despite the high priority given it by the Soviet leadership, this year's grainlift has been hampered by the usual transportation bottlenecks. During the first half of the LTA year Soviet grain ports processed less than 3 million tons per month; the need to average well more than 3 million tons per month the rest of the year will severely test the system. To help ease the congestion, however, at the major grain ports Moscow has installed new grain-handling equipment (acquired from Western Europe) that will significantly expand port capacity.

Post-Embargo Trade Outlook

Even with a good crop in 1981 and average or above-average harvests during the next few years, Moscow will need continuing supplies of foreign grain—probably 20 to 30 million tons annually. Before the US embargo ended, the Soviets had lined up contracts with major exporters that guarantee them access (contingent on availability) to 15 million tons of non-US grain next year and 10 to 14 million tons annually in later years.

With the lifting of the embargo, more grain became available as major exporters acted to protect their commercial interests.]

Table 2

USSR: Total Grain

	Harvested Area (Million Hectares)	Production (Million Tons)	Yield (Tons Per Hectare)
1971-75	124.0	181.6	1.47
1976	127.8	223.8	1.75
1977	130.4	195.7	1.50
1978	128.5	237.4	1.85
1979	126.4	179.2	1.42
1980	126.6	189.2	1.50
1976-80	127.9	205.1	1.60
1981 (plant)	127-128	236	(1.85)

] The EC is expected to resume sales to the USSR in early June.]

On 28 May US Secretary of Agriculture John R. Block announced that talks between the United States and the USSR would be held in London on 8 and 9 June to discuss possible additional sales of US grain to the Soviet Union before the current LTA expires. Any significant purchase would probably be for delivery after 30 September, since Soviet ports probably cannot handle any more grain than Moscow has already bought for delivery this LTA year.

The US negotiators will also be prepared to discuss arranging a new US-USSR long-term grain agreement. Although Moscow has not yet publicly indicated any interest in a new LTA, the Soviets would probably prefer to have one to fall back on in the event they or their other foreign suppliers have bad crop years. As matters now stand, the Soviets believe that after the current agreement expires they will be able to buy legally all the US grain they want—without the prior approval of the US Government. The Brezhnev regime would probably feel more comfortable, however, with a new LTA in which the United States was committed to make available some minimum amount of grain annually, regardless of the state of bilateral relations.

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