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# USSR: 1982 Grain Crop in Trouble



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An Intelligence Memorandum

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GI 82-10133  
June 1982

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## USSR: 1982 Grain Crop in Trouble

### An Intelligence Memorandum

*Information available as of 28 June 1982  
has been used in the preparation of this report.*

This memorandum was prepared by the Agricultural Assessment Branch and the Agricultural Trade Branch of the Resources Division, Office of Global Issues, with a contribution from the Office of Soviet Analysis. Comments and queries are welcome and may be addressed to the Chief, Agricultural Assessment Branch, OGI, [redacted]


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GI 82-10133  
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USSR: 1982 Grain  
Crop in Trouble 

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Summary

Poor weather during the past few weeks has greatly reduced potential Soviet grain production this year. We now believe that the best grain crop Moscow can harvest is about 185 million tons, 53 million tons short of this year's target. The outcome could be much worse. Hot, dry winds—known as a *sukhovey*—currently threaten crops in the main spring grain belt from the Volga valley eastward. If the *sukhovey* persists or is followed by drought, total Soviet grain output will be markedly lower, perhaps even as low as last year's disastrous harvest of 158 million tons. Maximum potential yields will be determined largely by weather conditions during the next several weeks, and by mid-July we will be able to make a more precise estimate of this year's crop.

The current crop is suffering from more than just bad weather. In addition to normal managerial problems, the Soviets are experiencing shortages of high-quality seed and chemical fertilizer. Furthermore, a poor crop this year could have negative carryover effects next year. Specifically, a continued shortage of high-quality seed would limit next year's yields.

Regardless of what happens later this summer, the USSR will need to import as much grain as possible. Port capacity now approaches 50 million tons per year. Moscow imported a record 45 million tons of grain during marketing year (MY) 1982 (1 July 1981 through 30 June 1982) and may already have lined up more than 17 million tons of grain from non-US suppliers for delivery in MY 1983. Non-US sources could provide another 15 million tons, more if the Soviets are willing to pay a premium or substitute wheat for feedgrains. For purchases much above 32 million tons in the mix of feedgrains most suitable for its needs, Moscow would probably buy US grain.



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### Major Grain Growing Regions



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[REDACTED]

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USSR: 1982 Grain  
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An abrupt shift in the weather has all but eliminated any chances the Soviets might have had for a good grain crop this year. In early June, an extensive low pressure system dominated most of the European USSR. The high winds, rain, and occasional snow that resulted severely hampered the sowing of spring grains. Official Soviet data indicate that the total area sown to grain this year will fall several million hectares short of target. Moreover, in much of the northern European USSR, cooler-than-normal temperatures retarded the development of both winter and spring grains. In some parts of the grain region these conditions were replaced in mid-June by hot, dry winds, referred to by the Soviets as a *sukhovey*. Before the weather system responsible for the *sukhovey* broke on 21 June, winter grain yields were reduced markedly. Development of a similar weather system east of the Urals now threatens the spring grains as well. [REDACTED]

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#### The 1982 Crop Season Thus Far

Following three consecutive poor grain harvests, the 1982 crop season opened on an optimistic note. Indeed, the outlook for fall-sown winter grains appeared good last fall just prior to dormancy:

- Total planted area was up slightly from the previous year.
- Above-average precipitation brought relief to much of the European USSR which had been suffering from drought.
- Soil moisture was adequate for germination.

Conditions were also favorable during the winter, and we judge that winterkill was somewhat less than the normal 15 to 20 percent. Nevertheless, soil moisture levels remained about 25 percent below normal in several key winter grain areas, particularly in parts of the eastern Ukraine and northern Caucasus. [REDACTED]

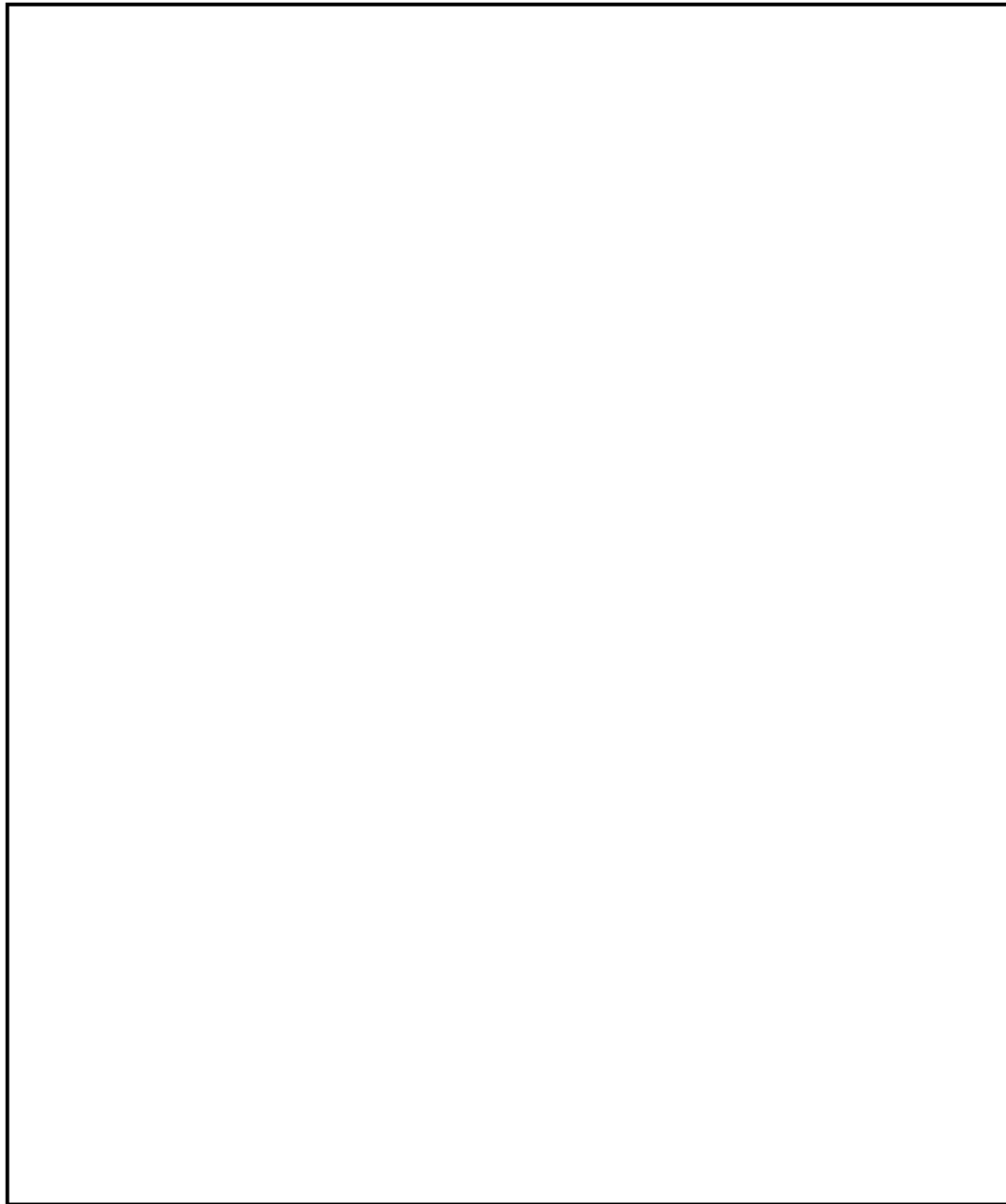
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In late spring the production outlook turned sharply downward. Cooler and wetter-than-normal weather in April and May eliminated any lingering effects of last year's drought, but the continuation of these conditions into June created serious new problems. The wet weather sharply curtailed sowing operations in the central and northern regions of the Russian Republic. In addition, cool temperatures retarded crop development, probably lowering the yields of both winter and spring grains in those areas. In a normal or good year, these central and northern areas might be expected to produce about 25 million tons of grain. By our estimate, the most these areas will produce this year is about 15 million tons. [REDACTED]

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Recent precipitation has improved soil moisture in parts of the eastern Ukraine and northern Caucasus, but [redacted] some winter crops have been severely damaged, causing us to lower our production estimates in these areas as well. The sparse and uneven stands of these crops may result from shortages of high-quality seed that prevented extensive reseeding operations earlier this spring. Local agricultural officials have referred to such shortages in the Soviet press. Moreover, in some

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Table 1

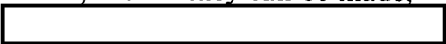
Million Hectares

## USSR: Sown and Harvested Grain Area


	1976-78 Average	1979	1980	1981	1982 <sup>a</sup>
Preliminary seeded	131.4	130.2	130.0	126.4	123/124
Final harvested	128.9	126.4	126.6	124.6	121/122

<sup>a</sup> Estimated.

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other parts of this area, winter grains did not receive normal topdressing or adequate applications of mineral fertilizer. One official in the USSR Ministry of Agriculture admitted that the chemical industry had fallen considerably behind in its deliveries of nitrogen fertilizer. By the beginning of April, the shortfall was reportedly equal to the amount needed to fertilize about 2 million hectares, some 7 percent of the current winter grain area. Subsequent deliveries of fertilizer, even if they can be made, will arrive too late for this year's crop. 


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In the large spring grain area east of the Volga valley, weather conditions have been mostly hot and dry this spring. Soil moisture reserves were down to about one-fifth of normal during the main planting period from mid-to-late May. In early June, widespread rainshowers probably provided at least adequate moisture for germination, but most of the region—particularly northern Kazakhstan—needs considerably more rain for yields to be average or better. From 13-21 June, a *sukhovoy* centered in the Volga and Urals regions resulted in temperatures as high as 34°C (94°F) in some areas, relative humidity less than 20 percent, and high winds. These conditions severely reduced the potential for winter grain yields. A similar system now threatens spring grains in northern Kazakhstan and western Siberia. 

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### Outlook for the 1982 Grain Crop

With normal weather for the rest of the year, we believe the best grain crop Moscow can harvest is about 185 million tons—well short of its needs for food, seed, livestock feed, and industrial use:

- As a result of the poor weather in recent weeks, we now expect the winter grain harvest to be no greater than 55 million tons, much below our May estimate of 60 to 70 million tons.
- We expect spring grain output will be no more than 130 million tons, the result of a sharp reduction in the area sown and a soil moisture deficiency in many parts of the spring grain growing region. 

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Table 2


Million Metric Tons

## USSR: Recent Grain Production


	1976-78 Average	1979	1980	1981	1982
Winter grains	70.1	49.6	63.1	53 <sup>a</sup>	55 <sup>b</sup>
Spring grains	148.9	129.6	126.0	105 <sup>a</sup>	130 <sup>b</sup>
Total	219.0	179.2	189.1	158 <sup>a</sup>	185 <sup>b</sup>
Target	214.0	227.0	235.0	236	238

<sup>a</sup> Estimate.<sup>b</sup> Upward limit.


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The outcome could be much worse. If the *sukhovey* that now threatens much of the spring grain growing area persists or is followed by drought, yields will be lower than those currently forecast. Indeed, we can not now rule out the possibility of a repeat of last year's crop failure—158 million tons.<sup>1</sup> For this to occur, however, damage from the *sukhovey* would have to be severe, and weather through the remainder of the growing season and harvest period would have to be abnormal. We will be better able to estimate the likely size of this year's harvest by mid-July, when the spring grains reach the critical flowering stage. Drought conditions during this stage of plant growth could sharply reduce maximum potential yields of spring grains as they did last year. Similarly, extremely wet conditions during the fall harvest period or an early onset of winter would force grain fields to be cut prematurely or to be abandoned entirely. 

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A poor grain harvest will also affect prospects for the 1983 crop. The lack of reseeded operations this spring and remarks in the Soviet press suggest that the Soviets ran short of high-quality seed this year. With their seed stocks already depleted, Soviet farmers may be faced with a serious shortage again next year, thus limiting potential yields at the onset of the crop season. 

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<sup>1</sup> Moscow has made no official release of 1981 Soviet grain production. Soviet economic lecturers who have announced production results in the past have indicated that the harvest was about 158 million tons. 

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**Soviet Grain Imports**

With another poor harvest likely, the USSR will import as much grain as possible in the marketing year (MY) that ends June 1983 (MY 1983)—limited by the amount its ports and rail system can handle, currently estimated at about 50 million tons. Moscow's purchase of 45 million tons of grain during MY 1982 now stands as a record. Long-term agreements and new purchases may already assure delivery of more than 17 million tons in MY 1983:

[REDACTED]

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Depending on the size of this year's crops, non-US grain exporters could provide an additional 15 million tons of grain to the USSR. For purchases much above 32 million tons in the mix of feedgrains most suitable for its domestic requirements, Moscow would probably buy US grain. To import as much as port capacity will allow, purchases of US grain in MY 1983 could well exceed the 16-million-ton level expected to be sold in the current marketing year. [REDACTED]

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Under extreme conditions, say if US grain were unavailable, Moscow could meet much of its import requirements from non-US sources. To do so, the Soviets would have to aggressively tap small suppliers, be willing to pay some premium to divert grain from traditional customers, and substitute wheat for feedgrains. [REDACTED]

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Paying for such purchases will be a problem. Although grain prices have fallen somewhat recently, Moscow will need at least some \$6 billion to \$6.5 billion to import all the grain it needs. Prices for oil and gold—two major hard currency earners—will probably remain weak throughout 1982. Consequently, Moscow probably will continue to rely on short-term credits to finance a substantial portion of its grain purchases, rather than curb imports to any great extent. [REDACTED]

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[REDACTED]

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In addition, Moscow will probably again feel the need to reduce imports of nonagricultural commodities, which fell last year by about 10 percent. [REDACTED]

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