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USSR: Early April Crop Conditions

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The Environment Analysis Staff (EAS) of the Office of Geographic and Cartographic Research is responsible for forecasting Soviet grain production. The EAS staff will publish regular crop assessments and estimates. All estimates are derived in accordance with agronomic principles emphasizing convergence of evidence.

The methodology employed uses crop modeling as the basic framework and includes data from imagery, collateral, and weather analysis. A forthcoming report will give a more complete and detailed description of the methods employed in producing this series of Briefs.

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Environment Analysis Brief

USSR: Early April Crop Conditions

Summary

Crop conditions in the USSR's winter grain area have been generally favorable during the past six weeks. Problems at planting last fall and winterkill during a cold snap in mid-February have probably destroyed more than the normal 15 to 20 percent of the winter crop. It is still too early, however, to determine the full extent of this year's winterkill.

Despite below-normal precipitation during March in much of the spring grain area, moisture reserves have improved markedly since last fall and are sufficient for spring planting.

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 9 April 1976.

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Winter Grains

Conditions in the winter grain area during March generally returned to normal after a cold, dry February. Belorussia and the western Ukraine received about 2½ times the normal amount of precipitation in the first part of March. A high pressure system which dominated the weather during much of the month weakened by the end of March and allowed the precipitation pattern to shift eastward into the central Ukraine and southern Volga valley.

Despite the improved weather during March, the area of winter grain lost to winterkill will probably amount to more than one-fifth of the 37½ million hectares sown last fall.* Although a Soviet official informally commented in late March that from two to six million hectares of winter grains, possibly more, might require replanting, his estimate appears conservative. Press reports from Kherson oblast in the southern Ukraine indicated that the spring acreage there would be trebled, the result of “. . . resowing of winter crops.”

Conditions in some areas have delayed field operations by one to two weeks. Necessary resowing and supplementary seeding of winter grain areas to spring grains should be carried out as early as possible to allow the plants to develop under optimum conditions. A lack of color reflectance in mid-March LANDSAT imagery indicates the low vegetative vigor of winter grain in the southern Ukraine compared to the same area in 1975 (images 1 and 2). This lack of vigor for the most part reflects the lag in crop development compared to the unusually early spring last year.

*For a more complete discussion of the effect of last fall's dryness and the cold temperatures in mid-February on winter grains, see GC AB 76-001, *Prospects for Soviet Winter Grain*, 3 March 1976.

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Spring Grains

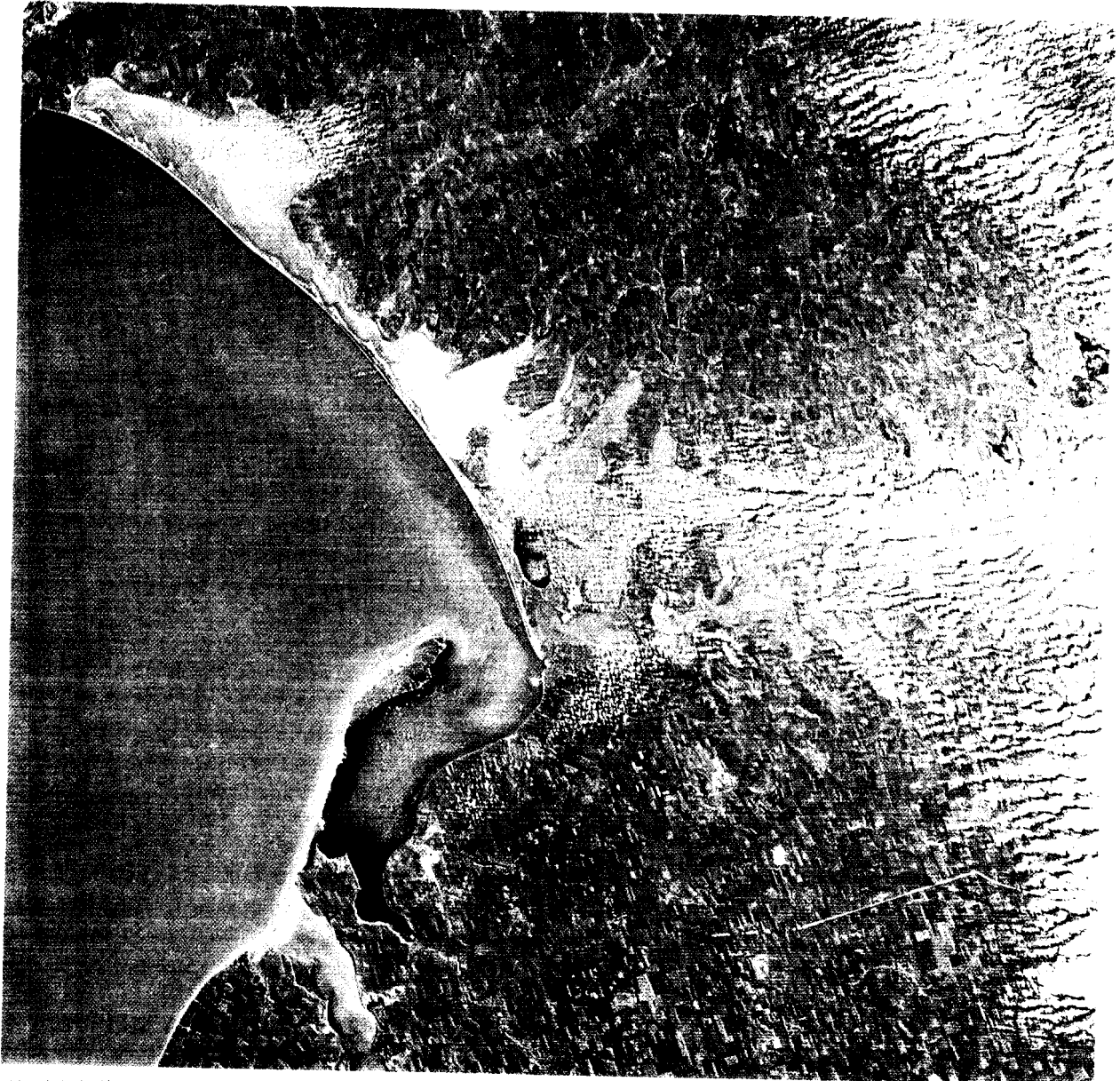
Conditions in most of the spring grain area* have improved markedly since last fall. The high pressure system that dominated most of March kept precipitation and temperatures in most of this area below average. Moisture reserves remain below normal in the Volga valley and Urals region, areas hard hit by last year's drought. As of 1 April, however, soil moisture conditions are sufficient for the sowing and germination of spring grains (see map).

*Most of the spring and summer grains are grown east of the Volga valley and well south of 60° latitude. They account for approximately three-fourths of the sown grain area and about two-thirds of total grain production. Barley, wheat, and oats are the major spring grains. In 1975, barley accounted for 36 percent of spring grain production, wheat 32 percent, and oats 15 percent. Summer grains, including corn, accounted for another 15 percent of spring grain output, the pulses were 6 percent.

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Landsat Image I Mid-March 1975 Kherson-Crimea



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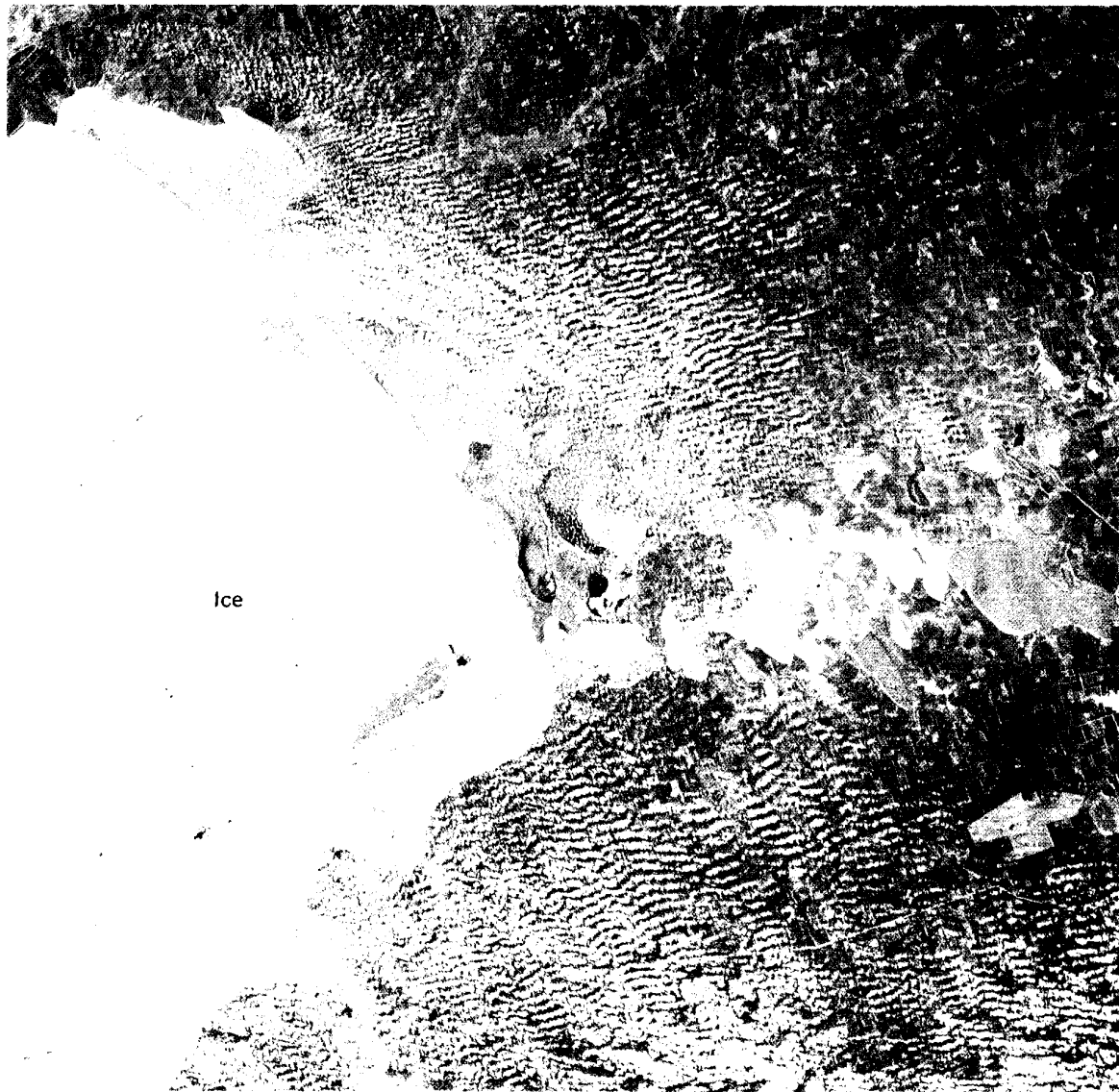
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Landsat Image II Mid-March 1976 Kherson-Crimea



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USSR: Soil Moisture as of 1 April 1976



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