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SOVIET WHEAT DYNAMICS

In the Soviet Union's negotiations with free world countries to purchase an indicated 12 million tons of grain, the news accounts to date have listed wheat as the primary grain under consideration. As the Soviet Union is the world's largest wheat producer, (the U.S.A. and China surpass it in total grain production) large wheat imports would indicate that a relatively heavier loss was incurred in the wheat fields than among the feed grains in this year's harvest failure. With the emphasis on wheat, a look at the dynamics of that primary Soviet commodity is in order.

USSR WHEAT: PRODUCTION AND STATE PURCHASES

	<u>1940</u>	<u>1953</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
	(million tons)						
Output	31.7	41.3	76.6	69.1	64.3	66.5	70.6
State Purchases	15.6	19.2	41.9	34.2	30.9	33.3	-

Narodnoye Khozyaistvo SSSR v
1961 godu, pp. 300-1, 305.

From 1953 to 1962, a 70 percent increase in the aggregate output of wheat was registered. During the same period, however, the area seeded to wheat was expanded by 80 percent, from 48.4 million hectares to 67.8 million in 1962.¹ Thus, the increase in output was the result of a proportionately larger spatial expansion of land. The decline in the yields per hectare was due to the sharp shift into the spring wheat areas of the virgin lands. Spring wheat normally yields about half that of winter wheat. The more productive winter wheat area remained almost constant, while the spring wheat hectareage grew by fully 50 percent.²

¹Pravda, 21 July 1962.

²Narodnoye Khozyaistvo SSSR v 1961 godu, p. 326, 327. In 1961, 71 percent of the total wheat area was spring wheat, or 45.7 million hectares. Of this area, 88 percent was located in the marginal "virgin lands", from the Volga to Siberia.

This shift of the wheat crop to the more hazardous growing conditions of the virgin lands makes planning vulnerable, and wholly academic when compounded by unfavorable weather, mismanagement in farm operations and an irrational farm policy. In years when a major winter wheat region, such as the Ukraine this season, simultaneously has a short crop, the aggregate effect on the national harvest is critical, as the unprecedented imports now demonstrate.

The table shows that it is the policy of the Soviets to purchase at fixed prices approximately one-half the wheat crop from the farms. In record harvests, however, as 1958, this share of forced deliveries reached 55 percent. Procurements of wheat are used to feed the urban population, provide for exports, and replenish the reserves. These state purchases are transacted in terms of actual kernel grain, rarely in grain equivalents, and usually consist of the quality grains.³ Procurements have first priority in the distribution of the crop. The state collects its share immediately upon harvesting. The remaining half share is retained by the state and collective farms and is used for seed, livestock feed, and as payment in kind for work performed by the farm workers. The quality of the wheat remaining in the farms is generally of a lower grade than the state purchases.

USSR STATE PURCHASES: TOTAL GRAIN AND WHEAT

	<u>1940</u>	<u>1953</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>
	(million tons)					
Total Grain	36.4	31.1	56.6	46.6	46.7	52.1
of which/Wheat	15.6	19.2	41.9	34.2	30.7	33.3

op. cit., p. 305.

The approximate share of wheat procurements is on the order of two-thirds of the total grain deliveries, with some rise noted in bumper harvest years. In percentage terms, a series of five year averages shows the increment in state wheat purchases.

³There is a wide variation in delivery ratios between areas. In the thinly populated Virgin Lands territory; the plan called for 71 percent of the crop to be delivered, while in the over-populated, livestock-rich Ukraine only 15 percent of the harvest was envisaged to be purchased by the state.

WHEAT AS SHARE OF ALL PROCUREMENTS

Av. 1958-62	-	69 percent
Av. 1954-58	-	66 "
Av. 1949-53	-	50 "
Av. 1940	-	43 "

op. cit., p. 366-7.

As wheat output has expanded, so also have state purchases. About three-fourths of the feed grains remain on the farms as livestock feed. Changes in the post-war dietary pattern have also contributed to the dominant role of wheat -- per capita consumption of rye has declined significantly. In fact, Soviet health authorities claim that 90 percent of the bread now consumed contains wheat flour.

The rising demand for wheat both domestically and in the bloc countries and the shift of the newly planted areas into the marginal eastern lands and away from the more stable producing winter wheat areas in European Russia contributed to the current supply crisis. The forced expansion of other competing crops in winter wheat areas -- corn especially and sugar beets as well, designed to provide the feed base for an expanding livestock industry -- accelerated the risk by concentrating the wheat crop in the marginal new lands. It is significant that in Khrushchev's speeches during September in the potentially irrigable regions of the lower Volga, the Kuban and the Dnepr delta, he stressed rice and maize as the chief grain crops for the irrigation projects that are to provide an additional grain reserve of 18 to 25 million tons yearly. Wheat and the other small grains, are not readily adaptable to large scale irrigation operations as are corn and rice. This technological limitation places the burden of increasing wheat yields almost wholly on greater use of chemical fertilizers. To date, however, almost all the output of chemical fertilizers has been used on cotton, sugar beets, potatoes, and corn. In the short run the outlook for raising wheat production is distinctly negative, short of very substantial increased plantings in the winter wheat regions. Soviet leadership must face this decision immediately in their perennial quest to solve the chronic grain problem.

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