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## IX. SOVIET RUSSIA: SEVERE SHORTAGE

Statistical information on the production of individual grains in the USSR has been lacking since 1938, and the scanty information available usually relates to all grains taken together. Hence, it is not possible to present the situation regarding food grains as distinct from that for other grains. It is appropriate, however, to discuss here the general grain situation in the USSR, since food grains normally comprise by far the greater portion of the total grain production in the Soviet Union. During 1934–38 the two bread grains—wheat and rye—occupied about three-fifths of the total grain acreage (59.6 per cent),<sup>1</sup> and composed about the same portion of the total grain production (60.6 per cent). Moreover, the production of all food grains represented a substantially larger portion of the total grain production,<sup>2</sup> since millet and buckwheat are mainly food grains in Russia.

All food grains taken together occupied 70 per cent of the total grain acreage of the USSR during 1934–38, and this percentage has probably increased during wartime because of the expansion of food grains at the expense of feed grains. Furthermore, it is probable that under war conditions considerable portions of such feed grains as barley and corn have been diverted to human consumption. Consequently, it appears reasonable to assume that about three-quarters of the total net production of grains in the USSR has been used for food purposes during the war.

This proportion appears very high when compared with the situation in North America or, under normal conditions, with that in western Europe; but it is not much higher than the prewar level for the USSR. Since food grains normally represented nearly 70 per cent of the total grain production in the USSR, the possibilities for emergency stretching of grain for human consumption were much more limited than in many countries of western Europe, where the prewar feed use of grain was relatively more important. Nor could the proportion of grain available for human use in the USSR be raised much by increasing the rate of flour extraction, since this rate was high even before the war. The prewar rate for the two bread grains taken together was

<sup>1</sup> In the eastern portion of the USSR, not invaded by the Germans at the time of their deepest penetration, the proportion of bread-grain acreage to the total grain acreage was even slightly higher.

<sup>2</sup> Soviet statistics include in the reported total grain production millet, buck-wheat, pulses, and a small quantity of rice.

probably not much below 90 per cent.<sup>3</sup> Consequently, in wartime, the extraction rate for bread grain could not be raised more than 7–8 per cent above the prewar level, and the proportion of the total grain supply utilized for human consumption (including admixtures of feed grains in bread flour) could not be raised more than 15 per cent.

The grain situation in the Soviet Union during the 1943–44 crop year was very strained in spite of the fact that the North Caucasus and the Don River (normally highly important grain-surplus areas), had been liberated during the preceding winter and spring. Their liberation came too late to permit sowing of a sufficiently large area to grains for the 1943 harvest, while it increased the number of people to be fed, perhaps by more than 10 million.

From indirect information revealed by Benediktov, Deputy People's Commissar of Agriculture, it may be estimated that the total grain acreage harvested in 1943 in the territory under Soviet control was about 170 million acres.<sup>4</sup> This figure is, however, some 15 million acres or 8 per cent smaller than the grain acreage harvested on the same territory in 1938, the last year for which detailed official statistics of crop areas were published.

The 1943 grain acreage in the liberated area was probably reduced by more than 15 million acres, since the grain acreage in the eastern, Asiatic portion of the USSR was then substantially larger than in 1938. Even before the German invasion of the USSR in 1941, the grain acreage in western Siberia and northern Kazakhstan had probably been increased by some 3–4 million acres over that of 1938. Furthermore, it was reported that the area sown to all crops in the free part of the USSR in 1942 was 5 million acres larger than for the comparable territory in 1941.<sup>5</sup> This also indicates that the 1942 grain acreage

<sup>3</sup> On the basis of Soviet milling statistics, it may be estimated that the average rate of flour extraction for wheat and rye together was about 92 per cent in 1934. In 1936–37 it was lowered to slightly below 90 per cent. It is probable, however, that during the years immediately preceding the German invasion of Soviet Russia (1939–41) the rates were raised again.

<sup>4</sup> In an article, "Goals for Agriculture in 1944," in *Bolshevik* (March 1944, No. 5, pp. 32–39), Benediktov said that the grain acreage harvested in 1943 was 10 per cent larger than that harvested on a comparable territory in 1913 and 16 per cent larger than that harvested in 1916. Using this information as a basis, and assuming that Benediktov used in his comparison the entirely uninvaded provinces plus the invaded ones that had been fully liberated before April 1, 1943, we made the above approximation. Of course, this approximation is very rough, since the frontiers of the crop-reporting regions were changed markedly from 1913–16 to 1938, and only rough adjustment for changed frontiers could be made.

<sup>5</sup> See articles by S. Demidov, Vice-President of the State Planning Commission of the USSR, "Socialist Agriculture in 1941," *Sotsialisticheskoe Sel'skoe Khoziaistvo* [Socialist Agricultural Economy] (USSR, People's Commissariat of Agriculture), February 1941, p. 22, and "Socialist Agricultural Economy in 1943," *ibid.*, March–April 1943, p. 3.



was probably some 4 million acres higher than in 1941. Finally, the acreage sown to winter crops (almost entirely grains) for the 1943 harvest exceeded the previous year's acreage by 6.7 million acres.<sup>6</sup> If the spring sowing of 1943 on the same territory was at least maintained at the level of the previous year, the 1943 grain acreage in the uninvaded area would thus have exceeded the 1938 acreage by 13–14 million acres. This indicates that the grain area harvested in the southeastern liberated areas in 1943 must have been very small as compared with that harvested in 1938—probably only about one-fourth to one-third as large.

There are several reasons why agriculture was not better restored in the important agricultural areas of the Don and the North Caucasus. The region was liberated late; the Germans thoroughly destroyed or evacuated tractors, machinery, equipment, and draft animals; and weather developments during the 1942–43 growing season were unfavorable. Since the Germans still occupied the North Caucasus and the Don River region in the autumn of 1942, winter sowings there were small, and a considerable portion of the grain sown probably perished. Spring sowings after the liberation of the area could not have compensated for this, since the time was too short to organize an effective spring-sowing campaign. In the autumn and early spring a prolonged and severe drought affected grain crops unfavorably not only in the southeastern liberated areas but also in the regions of the middle and lower Volga, particularly in the latter. In some parts of this area the autumn-sown crops did not germinate at all, and some that had germinated perished later from lack of moisture.<sup>7</sup>

In other agricultural regions of the USSR weather conditions during the 1942–43 growing period were more favorable for crops. Yet the 1943 yield per acre of grain in the USSR could not have been better than average and was probably somewhat below. To this not only the unfavorable weather developments contributed, but also unsatisfactory work in the fields resulting from shortages of equipment, draft power, and experienced labor. According to the Deputy People's Commissar of Agriculture of the USSR, unsatisfactory preparation for the 1943 crops resulted in lower yields in the wide grain-surplus areas of the Volga region, the southern Urals, western Siberia, and northern Kazakstan.<sup>8</sup> Because of its source, this statement should not be questioned.

The Soviet grain crop of 1943, which resulted from yields that were

<sup>6</sup> See an article by Benediktov in *Bolshevik*, March 1943, No. 5, pp. 5–15.

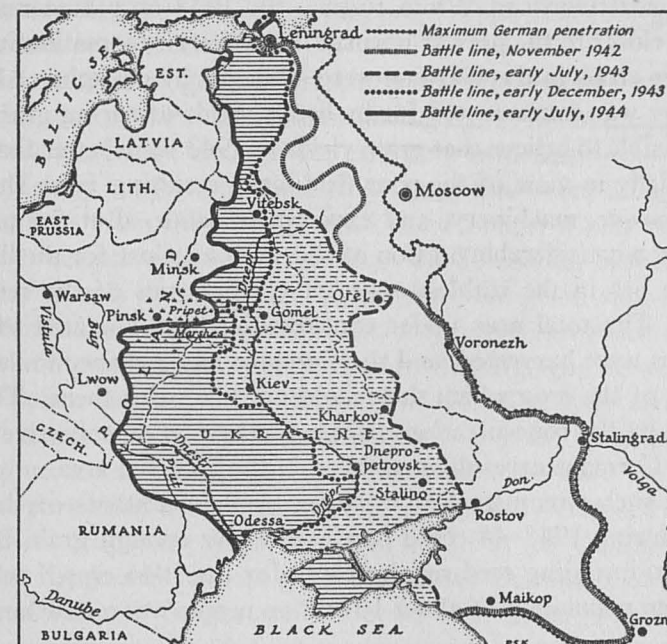
<sup>7</sup> *Sotsialisticheskoe Sel'skoe Khoziaistvo*, January–February 1943, p. 45.

<sup>8</sup> Benediktov, in *Bolshevik*, March 1943, No. 5, pp. 5–15.

not above average and which was harvested on an acreage 30 per cent below the normal prewar grain acreage of the USSR, had to provide for the grain requirements of a much larger number of people than did the 1942 crop. It may be roughly estimated that in the uninvaded and liberated parts of the USSR there were about 140 million people to be fed in July 1943. This figure, which includes the army and civilians evacuated from the invaded area, comprises about 80 per cent of the total prewar population of the USSR, while the grain crop at its disposal was less than 70 per cent of the prewar average. Thus, on a per capita basis, the grain supplies from the current crop were only about 85 per cent of the prewar normal.

During the 1943–44 crop year, however, many more people were liberated by the Soviet army, and a substantial portion of them had to be supplied with grain from the crop harvested in the uninvaded area. Early in December, the Soviet army was on the line of the Dnieper and even beyond it in some localities (see Chart 23). Before the onset of

CHART 23.—THE SOVIET-AXIS FRONT AT VARIOUS DATES, 1942–44\*



\* Based on news sources.

winter, therefore, the population under Soviet control increased by 10–15 million people, of whom about 5 million were urban inhabitants. And since most of the area west of the Dnieper was liberated early in

the spring (before May), the Soviet government had to take care of an additional 15–20 million people (about 5 million of whom were urban inhabitants) during the last quarter of the crop year. By the end of July 1944 practically the whole territory of the USSR was liberated, and the Soviet army gained a substantial portion of eastern Poland and the northern portion of Bessarabia and Bucovina. With these areas, the number of people under Soviet control at the end of the crop year certainly exceeded 170 million.

Although some additional supplies of 1943 grain came with the reconquered areas, these probably were not sufficient to cover the essential requirements of the additional population even at a low level of consumption. It is true that the area sown to grain in the German-occupied territory of the USSR was somewhat larger in 1943 than in the preceding year. Information from the press indicates that the area sown to crops for the 1943 harvest in Ukraine under German and Rumanian control was 85–90 per cent of normal, against the German claim of 70–75 per cent for the 1942 crop.<sup>9</sup> In the occupied area north of the Ukraine, particularly in White Russia, the 1943 crop area may have been even closer to the prewar normal. However, information indicates that winter crops in the Ukraine were damaged by drought. Although the damage was compensated for by better yields of spring grains, it is hardly possible to believe that grain yields in 1943 were better than average, especially in view of the poor field work resulting from shortages of draft power, machinery, and experienced labor. But the principal reason that a considerable portion of this crop was lost for the liberated population lies in the ruthless scorched-earth tactics of the retreating Germans. The total area under consideration was liberated after the grain crops were harvested, and the Germans had a chance to destroy a great deal of the crop which they could not take with them. This was facilitated by the concentration of harvested crops on collective farms, which the Germans carefully preserved in the occupied area.

Under such circumstances, even the rural inhabitants of the areas liberated during 1943–44 could hardly preserve enough grain to cover their needs, including seed requirements for the 1944 crop,<sup>10</sup> while the entire urban population of about 10 million people was a new burden on

<sup>9</sup> *Pester Lloyd* (Budapest), July 7, 1943; *Neue Zürcher Zeitung*, Sept. 2, 1943; *Frankfurter Zeitung*, July 8, 1943.

<sup>10</sup> Judging from the plan for the 1944 crop area in the territory of the USSR east of the Dnieper, we believe that seed requirements in the newly liberated area were substantially below normal. Plans for the expansion of the 1944 grain area indicate that only about two-thirds of the prewar normal area was sown to crops in the newly liberated area east of the Dnieper (see p. 231).

the grain supplies of the uninvaded area of the USSR. Consequently, on a per capita basis in relation to the population that had to be supplied, grain supplies from the crop harvested in the uninvaded USSR in 1943 were not larger than 80 per cent of the prewar normal.

Such a large deficit from the current grain crops could not be completely covered by diverting grain from feed use to human consumption and by increasing the rate of flour extraction. A great reduction in livestock numbers undoubtedly took place in the liberated areas, but our estimate of feed use in 1943–44 takes no account of livestock in areas liberated after the beginning of the crop year. Furthermore, the grain requirement for feeding horses, which represents the greater portion of the total grain requirement for livestock in the USSR, could hardly have been reduced from prewar years. The increased work-load on horses in wartime and the increase in the proportion of army horses must have resulted in a heavier feed requirement per horse; this might well have compensated for the reduction in the number of horses. Finally, a considerable portion of the horses from the invaded area had been evacuated to the east, where they were supplied needed grain from local production or stocks.

Soviet receipts of grain from Allied countries under lend-lease and other intergovernmental agreements during the 1943–44 crop year were smaller than expected earlier. No complete information has been revealed officially concerning these shipments; but, from an analysis of wheat exports from Canada and the United States, it may be inferred that these receipts were not larger than 25–30 million bushels.<sup>11</sup> This was equal to only 1–2 per cent of the domestic grain supplies of the USSR from the 1943 crop. Consequently, overseas wheat could not have covered more than a small portion of the large gap between Soviet grain supplies and requirements in 1943–44. The only source from which this gap could have been filled was the grain reserves that the Soviet government probably accumulated before the war.

Some portion of these reserves was undoubtedly disposed of during the 1942–43 crop year, when the grain deficit in the USSR was large because of the greatly reduced grain area under the control of the Soviet government. But if Soviet grain reserves were as large as may be inferred from an analysis of the disposition of Soviet grain crops during

<sup>11</sup> This estimate is not inconsistent with a report of the War Food Administration (*Northwestern Miller*, Dec. 6, 1944, p. 80) that lend-lease shipments of grain from the United States to the Soviet Union totaled 1,058,405 million tons through Oct. 1, 1944. A considerable portion of these were exported before July 1, 1943, and some quantity also during July–September 1944.



the decade before the German invasion, the government could have held at the end of 1942–43 a quantity of grain sufficient to cover the deficit during the 1943–44 crop year.<sup>12</sup>

If the Soviet government actually possessed large grain reserves at the beginning of the war, it could not have risked depleting them to a very low level before the principal grain-surplus areas were fully liberated. Consequently, the authorities found it necessary to impose further restrictions on grain consumption by reducing the bread ration.

The following tabulation shows the per capita weekly rations of bread and cereals for various categories of consumers in the USSR (in ounces):<sup>13</sup>

Category of consumer	Bread	Cereals
Manual workers .....	160–185	16
Employees .....	111–136	12
Adult dependents .....	74	8
Children .....	74	10

These rations, revealed in the press in February 1944, characterized the food situation in Russia at a time when the results of the 1943 crop were already well known and the requirements of the newly liberated areas could be reasonably approximated. Consequently, it may be inferred that the rations were fixed at levels that could be maintained until the next harvest—an inference supported by the fact that we have seen no report of a later reduction in 1943–44. The bread rations in force in the late winter and early spring of 1943–44 were substantially lower than those effective during the previous crop year, particularly for the lower categories of consumers. Comparison shows that the bread ration for adult dependents and children was 25 per cent lower than it had been in the spring of 1943.<sup>14</sup> For manual workers the percentage reduction was apparently smaller.

Even the lowered Soviet bread rations of 1944, however, compared favorably with the rations in many countries of Continental Europe. If we assume that the ration of a “normal consumer” in Germany may be compared with the average rations for an “adult de-

<sup>12</sup> From such an analysis, as well as from a study of official regulations concerning government grain collections during recent prewar years, the writer came to the conclusion that the Soviet government could have accumulated, by the beginning of the war in June 1941, grain stocks equivalent to about half of the average net prewar crop, excluding seed use and losses. Stocks of such a magnitude would have been sufficient to carry Soviet Russia through the two deficit years of 1942–44 and still leave a comfortable carryover at the end of the 1943–44 crop year. However, inevitably heavy losses from these stocks during the German invasion are too conjectural to be estimated even approximately.

<sup>13</sup> This information is from *Neue Zürcher Zeitung*, Feb. 22, 1944, p. 2. Its London correspondent explains that it was revealed by the Moscow correspondent of the *Observer*.

<sup>14</sup> See *New York Times*, Mar. 1, 1943, p. 4.

pendent” and for an “employee” in Soviet Russia, the Russian bread ration was on a higher level than the German (see table, p. 94). The same appears from a comparison of the bread ration for manual workers in the USSR with those for heavy and very heavy workers in Germany. However, the Russian allowance for an adult dependent was lower than the ration such a consumer would receive as a member of the normal-consumer group in Germany. The food rations for this category of consumers in Russia were the most inadequate.

All Soviet bread rations, however, appear inadequate when we remember that even in prewar times cereals supplied about three-fourths of the total amount of calories in the normal Russian diet.<sup>15</sup> Moreover, during the war supplies of animal food have been reduced by a greater proportion than those of plant origin. Evidences of this are found in the very low allowance of meat and fats in the food rations of the urban population of the USSR, and in the information that even these low rations frequently are not fulfilled. Among plant foods, sugar has been in the shortest supply and rationed most sparingly. In 1943–44 rations of meat, fats, and sugar were much lower in Russia than in Germany, and even lower than in Belgium and other western occupied countries. This was true in spite of the fact that large quantities of these foods, particularly of fats, were shipped to the USSR under lend-lease.<sup>16</sup> These shipments, except perhaps fats, were destined only for the Soviet army and for a few privileged groups of consumers.

Only one factor compensated for the substantial reduction of the bread rations allowed large groups of the population in 1943–44: the supply of potatoes and vegetables in the free part of the USSR was larger than usual.<sup>17</sup> The consumption of potatoes during 1943–44 could have been at the prewar level or even above it, and the situation with respect to vegetables was similar. According to a specialist on food problems who visited Russia during the autumn of 1944, the population exists today on a diet of black bread, boiled potatoes, and cabbage.<sup>18</sup>

<sup>15</sup> See M. K. Bennett, “Wheat in National Diets,” *Wheat Studies*, October 1941, XVIII, particularly Appendix Table I, p. 73.

<sup>16</sup> According to information revealed by L. T. Crowley, head of the Foreign Economic Administration, 640,000 tons of lard, pork fat, and oleomargarine and 51,000 tons of butter had been shipped to the USSR by March 1944. The larger portion of this was apparently shipped after Aug. 1, 1943 (*New York Times*, Apr. 3, 1944, p. 3).

<sup>17</sup> On the basis of information similar to that on the food-grain area (Benediktov, “Goals for Agriculture in 1944,” in *Bolshevik*, March 1944, No. 5, pp. 32–39), it may be estimated that the 1943 potato acreage under the control of the Soviet government was nearly 30 per cent larger than the 1938 acreage in a comparable area, and that the area under vegetables was more than 80 per cent larger. Yields of these crops in 1943 were also satisfactory.

<sup>18</sup> See statement by Lt. Col. R. W. Olmstead, deputy War Food Administrator, in the *New York Times*, Nov. 5, 1944, p. 33.