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NEW CONCEPT ON GRAIN BALANCES

Summary: The grain problem remains the "key problem" in the agriculture of Eastern Europe. As a measure of a country's capabilities to meet needs, grain balances are used as models. A new concept -- one ton of grain per capita -- as a goal for fully meeting national demand has been persuasively argued. By that yardstick the three southern countries -- Rumania, Bulgaria and Hungary -- could reach this optimal goal within a decade; but for the northern industrial, populated countries it is clearly beyond reach. In the Soviet Union, 1985 might bring equilibrium if the high tide of capital flow is continued into agriculture.

There have been no recent major changes in the balance of world grain production. From 1950-60 production of grain and pulses per capita increased from 276 to 330 kilograms; during 1960-69 the relative level was practically stabilized, and in 1965 even declined to 315 kilograms. In the Comecon countries, however, significant increases of 10 to 20 per cent occurred during the first half of the 1960s, but output in the last few years, except for the USSR, has been levelling off. During this period Soviet grain output grew from 586 to nearly 700 kilograms per capita.

With the rise in consumer incomes, the progress of science and technology, fundamental qualitative changes, including structural ones, are taking hold in the production and consumption of food products. The direction is toward quality foods: livestock products, fruits, vegetables. However, grain remains the product of prime importance and, in international relations, an important strategic commodity as well. To the Soviet Union, the second leading grain producer in the world, solving the grain problem has been the great economic issue since the October Revolution. During the 24th Party Congress last month the grain problem was described by Chairman of the USSR Council of Ministers Kosygin thus: "the key problem that remains is the increased output of grain." (2) In fact, an upsurge in grain output could be termed the key agrarian issue in all Comecon countries.

Although the progress achieved in developing this main branch of agriculture has been substantial, grain resources still fall short of the domestic needs for each of the Comecon nations. The chronic shortages of meat products are directly attributable to inadequate feed grain supplies in Eastern Europe; indeed, they were partially responsible for the consumer riots over food prices in Poland last year.

The use of grain balances has been a normal approach to determining a country's needs for grain. This procedure is rather complex and planners in the respective countries do not often agree on the methodology used. However, it is useful in that it takes into consideration the cultural consumption patterns. For inter-country comparisons, moreover, they are not generally applicable. Now, however, a Soviet Gosplan economist has come up with a simple yardstick of measurement of a country's grain needs.

G. Vorobyev, writing in Voprosy ekonomiki and citing an extensive study he carried out, suggests that one ton of grain per capita must be produced annually in order to meet the needs of the country. (3) In this amount are included a share for exports and reserves. If one applies this formula to an efficiently functioning agro-industrial economy -- the USA -- there is striking unanimity. In 1969 over 202 metric tons of grain were produced for a population of 204 million. While about ten per cent of this volume is exported, the utilization of the feed grains (two-thirds of the total) is of a very high order in that they are fed to livestock in a properly balanced ration of carbonaceous grain, protein oil seeds, and legume roughages, all at a level not equalled in Eastern Europe.

Using the Vorobyev model -- one ton grain per capita as the ideal standard -- the ranking of the Comecon countries shapes up accordingly:

	<u>Population (million)</u>	<u>Grain Output Annually (million tons)</u>
USSR	242.8	167.0
Czechoslovakia	14.4	7.9
Hungary	10.3	9.1
Poland	32.3	18.7
Rumania	19.7	13.0
Bulgaria	8.4	6.0
GDR	16.0	6.7

Source: FAO Yearbook, based on 1968-69 data, (1969), pp. 15, 88.

It is apparent that there is a wide gap between recent output and the ideal amount of grain required under the Vorobyev model for each country. Among all countries Hungary has the highest performance record -- it could well close the gap in the next decade. However, a five year average indicates a 72 per cent achievement instead of the record harvest of 1969 when a 89 percent performance was reached. The southern countries have the best chances of meeting the goals -- Rumania, at present with 66 percent; and Bulgaria, with 71 per cent attainment, although in recent years annual growth has been marginal. But the possibilities of the lower Danube basin granaries meeting the targets are realistic over a period of time. On the one side, they are the least populated among the Comecon contingent.

The populated northern countries -- Poland, Czechoslovakia, GDR -- represent the reverse. There is no probability that the present performance of 58 per cent, 56 per cent, and 42 per cent, respectively, for the countries indicated can be unduly improved. Grain progress is on a slow beat. An equalizing feature, however, is that these countries are the leading potato producers, so a substantial share of livestock feedstuffs are provided by tubers. The use of potatoes for pig feed is well established in the private herds in Poland, but less well adapted in the socialized farms in Czechoslovakia

and the GDR. Even with the use of non-grain feeds the three countries import 5 to 6 million tons of grain yearly, mostly from the Soviet Union. This is a minimum amount; and for a desirable expansion of the livestock output, at least a 50 per cent increase in grain imports is indicated.

For the Soviet Union to reach the necessary target, and Vorobyev was primarily using Soviet data in his projections, it may well take 15 years considering the past growth rate. By 1975 average annual grain output is pegged at 205-210 million tons a year. By 1985, with perhaps 290 million people, the Soviet Union grain output -- if a continuous high rate of capital flow into agriculture is maintained -- could be on a comparable level if the old accounting procedure is still in force. If the field-run, or bunker weight, system of determining yields is still being used, adding 15 to 20 per cent ballast to the official total, then the 1985 projection is utopian.

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- (1) Derived from data in FAO Yearbook 1969, pp. 15, 88.
- (2) Pravda, 7 April 1971.
- (3) Voprosy ekonomiki, No. 10 (1970), p. 40.