

The cultural inferiority behind Russia's food crisis

by William Engdahl

The most important new element in this year's Soviet demand for Western grains is the astonishing increase in purchase of Western soybeans and high-protein feed grains for animals.

The "secret" of modern Western agriculture productivity in animal production is scientific mixing of feed with varying amounts of high-protein soymeal, fishmeal, skim milk powder, and such grain substitutes, to optimize the conversion of plant energy into animal product—dairy or meat. Of all such "grain substitutes," soybeans are far the most effective and efficient. At least an important element of the current Soviet leadership has grasped this fact.

Gorbachov's reported fascination with American grain cartel chief Dwayne Andreas is linked to repeated discussions some years ago when Gorbachov was responsible for Russian agriculture policy. Andreas, head of Archer-Daniels-Midland-Toeffer, convinced the Russian official of the value of high-protein animal feed to improve efficiency of Russian livestock production, hence meat supply to the Russian population. ADM-Toeffer is one of the most important exporters of soybeans.

The Russian meat production crisis

In recent published speeches, Gorbachov has reaffirmed that the priority for Russian agriculture program goals is to "improve meat supplies at any cost." This policy is reflected in recent reports of Western grain purchases. According to the agriculture weekly *Oilworld* of Hamburg, Moscow is currently buying soybeans and processed soymeal from the West at an alarming rate 50% higher than the rate last year.

Total import of soybeans is estimated by *Oilworld* to be 3.45 million tons for the season ending September 1988, but informed soybean trade insiders in Vienna say this will more likely exceed 4 million tons. By contrast, two years ago the soybean import was between 1 to 1.5 million tons a year. And the actual amount could likely go far higher, as there are

no official disclosure rules in South America, and U.S. grain companies circumvent U.S. disclosure law by exporting to "destination unknown." The USDA allows companies to list "destination unknown" as a way to hide large Russian deals, but traders in the business know quite well such large volumes can only be to Russia. For example, traders report that in only two days in November, Nov. 1 and Nov. 4, Moscow bought 1.57 million tons of soybeans and processed soymeal, but only 1.2 million tons was officially admitted to be for Russia.

According to Western agronomists who have had direct on-site experience inside the U.S.S.R. in the recent period, as well as economists in Scandinavia, West Germany, the U.K., and Austria familiar with the nature of the problem in Russian food production, the following stark picture can be outlined.

Why there is no meat in Moscow shops

Russian meat production efficiency is in an abysmally low state and getting dramatically worse. Some examples suffice to indicate the problem. First, the quality of animal feed input is extremely low, resulting in severe "waste" of caloric input in comparison with Western standards. According to 1988 research conducted by Prof. Philipp Kellner of the Justus v. Liebig University in West Germany, the inefficiency of animal production is "*the* chronic and most serious problem" in Russian agriculture. While the animal sector (cattle, pigs, sheep, poultry) produces an official 55% of gross product of the agriculture sector, it employs 88% of all arable land and over 70% of labor input of agriculture in the U.S.S.R. The central problem is the horrible inefficiency of Russian animal feeding practices.

Russian farmers "over-feed" their animals an average of 39% in order to produce a kilo of meat or dairy product. This is dramatic when compared with scientific feeding practices

in the Western European farming, where, for example, in West Germany, 0.9% waste of feed is average. The problem is, above all, a "protein gap," as Kellner and others describe it. As American and European agronomists discovered decades ago, changing the protein content of animal feed is the "secret" to obtaining more meat from less feed.

Cultural inferiority

What does the Russian "protein gap" involve and why can it not be solved by simply importing a few million more tons of Western soybean protein concentrate?

Despite considerable efforts in recent years to breed better quality herds through selective breeding and import of better breeds of cattle, the productivity of Russian cattle-breeding remains abysmally low. According to a recent study by the Vienna Institute for International Bankruptcy Proceedings, it requires at least double the amount of feed input in Russia to yield a kilogram of beef compared to Western Europe. Thus, it requires between 10-12 kg "grain units" per kilogram of beef compared with some 5 kg in the Federal Republic of Germany or Denmark to yield a kilogram of "meat." And the quality of that meat by Western European or U.S. standards is abominable.

The reasons for this low conversion efficiency are the very poor general quality of Russian grain varieties, the very low extent of scientific feed concentrate programs (even though in relative terms such feed concentrate use has increased in recent years, it is still at the levels of, say, Portugal or Greece). According to Professor Kellner's study, Russian share of feed concentrate to animals is very low. Only 33% of total animal stock today receives such scientific feed concentrate.

Not only is the amount of feed needed to fatten cattle and pigs approximately double that of the West for the cited reasons, but the animal which comes to slaughter is vastly inferior. According to information from the American Soybean Association, the actual meat content of Russian cattle at slaughter is a staggering 40-50% fat content, compared with 20-30% for Western Europe and U.S. cattle. In addition, because the huge collective farms must raise the cattle and bring them to large central slaughter facilities built according to the Stalin-era 1930s model of collectivization, farmers must in many cases transport animals 2,000 kilometers to slaughter.

In terms of comparisons for the dairy sector, a vital part of the national Soviet Food Program, results here are also abysmally low. For the same reasons as poor meat efficiency, the dairy herds give extremely low milk yields. According to Kellner's study, in 1986 the national average milk yield per cow per year was 2,480 kilograms of milk. By comparison, in Denmark, the average yield is 5,000 kg per cow per year. Russia has half the levels of good Western dairy output.

The quality of Russian meat supply is abominable, even when it is available. According to a Vienna-based authority

on soybean utilization in Russian agriculture, the result of decades of producing protein-deficient livestock is cattle with enormous fat per weight and sparse meat, on average 60% higher fat to meat per carcass weight compared with Western standards. Official statistics on per capita meat consumption in Russia, this expert stresses, are wildly misleading as well. "Figures of 60 kilograms per capita meat consumption are for the most low quality meat cuts, including intestines, and are often packed with lard, which is a staple of the Russian diet." He adds, "Not only do they not produce enough; they can't process enough meat. They lack the necessary infrastructure—storage, refrigeration, transport." In many cases, it simply rots en route to the large urban centers.

This expert calculates a present Russian protein deficit of at least 17 million tons per year soybean meal-equivalent just to bring present livestock herds to Western protein efficiency levels. To expand herds, levels of 25-30 million tons per year soybean meal-equivalent, fully half U.S. total average production, is required. For climate and precipitation reasons, Russia must import virtually all soybeans.

But this protein deficiency cannot be solved by the simple import of U.S. and South American soybeans, since much of this under present conditions would simply never be applied properly by the brutalized and backward Russian peasantry, according to Western agronomists familiar with the problems.

Peasant cultism and the cultural problem

In the 1920s and 1930s, during Stalin's forced collectivization of the farms, a raging debate took place inside Bolshevik Russia. The losing camp was the "pro-Justus von Liebig" advocates of Western scientific application of fertilizer and soil nutrients to agriculture to improve harvest yields. The victorious opposing camp was led by the Russian geneticist I. Michurin and a man described by Danish agronomist Flemming Juncker as "an eastern Rudolf Steiner," one V.R. Williams.

Their argument was that "natural plant genetics" and "organic farming" alone were sufficient to maximize plant growth, and solve the Russian food crisis. The Michurin camp argued that inputs such as artificial fertilizers, nitrogen, or chemicals to alter soil Ph, were irrelevant. This view was embraced in the 1930s by T.D. Lysenko and became the "orthodox" Russian school of agronomy. It had the attractive benefit for Stalin that he could divert all available nitrogen production away from agriculture into explosives for the war buildup.

This Russian "anthroposophic soil cultism" prevails to this day, according to first-hand reports. The official agriculture textbooks which are published today in Moscow for farming techniques are all from the 1930s. The Russian equivalent of Western "green" nature-food cultists has dictated food policy for the past half century. The results have been predictably catastrophic. But until very recently, Mos-

cow could simply ignore the growing crisis as military and energy priorities took full attention.

The superstition and lack of understanding of scientific farming by the Russian rural peasantry in the context of this history of pushing "green" or Steinerian techniques, is the largest single obstacle to real improvement in food supply. Look only at official Russian figures for total livestock:

Development of Russian animal stock

Years	Head of cattle	of which cows
1971-75	104 million	41 million
1976-80	113 million	42 million
1981	115 million	43 million
1983	117 million	44 million
1985	121 million	44 million
1986	121 million	43 million
1987	122 million	42 million

Source: *Narodnoe khozjajstvo SSSR, 1981-1987, Moscow.*

As this clearly confirms (and we can expect official Russian statistics to be understating the case), there has been a virtual stagnation in increase of beef herds in Russia since 1983, and an absolute stagnation since about 1984-85. This, despite important efforts in the past several years to improve meat supply through increased use of soybean meal feed and scientific breeding.

Basic problems

According to Dr. Andrew Jones, agronomist with the Agriculture Chemicals Center of ICI, who just completed a three year demonstration grain-growing project in the U.S.S.R., there are two basic problems in Russian agriculture: The farms are too big—10,000 hectares versus, typically, 200 hectares in the U.K. There is no control over what should be done on these huge units. These unwieldy units mean that "input of such essential things as fertilizer is often made on the part of the farm closest to the railroad and simply ignored on remote parts" of the huge collective farms. Spraying for pests, fungi, and such is very poor or nonexistent. The overall availability of fertilizers and pesticides is also absmally low, averaging, Jones estimates, something less than 50% the intensity of Western Europe, e.g. 80-90 kg nitrogen per hectare versus some 175-225 kg per hectare in the United Kingdom.

One of the major reasons for the poor application of even this fertilizer, Jones stressed, is the "very low education level on the farms. The agronomists from Moscow have a relatively good education, but they stay in Moscow. The situation in the regions is very low. The peasants operating the State farms are extremely hostile to change. I worked on a demonstration project to show what could be done with proper fertilizer and pesticide care to improve grain yields. It was a three year project. But it was only at the end of the three years that anyone took interest, and these were only the trained

officials from Moscow who saw the productivity results. The local peasants could care less."

But there are more fundamental cultural problems, Jones stressed. "Moscow still believes nitrogen is fundamentally wrong. Their textbooks are all from the 1930s. And there is absolutely no understanding, even in Moscow, of how changes in acidity of the soil affects yields. The further problem is that Russia has absolutely no educational infrastructure to spread new ideas," such as the U.S. Agricultural Extension Service, at least until recently.

The results in terms of grain harvest productivity are clear. Jones compared Western Europe and U.S.S.R. grain yields. Compared with typical grain productivity for winter wheat of 7 tons per hectare in West Germany or Austria, the yields for Russian winter wheat run from 1 to 4 tons. The best yields are from the Ukraine, with still only 3-4 tons per hectare. Further, over years of development, Soviet varieties of wheat are selectively bred solely to last through extreme cold winters, not to maximize quality or high yield. The results are fed to animals with predictable inefficiency. "Privatization of farming and other reforms will take years to yield results," stressed this first-hand observer.

Reviving the '1982 food program'

Knowledgeable analysts of the current attempts to improve Russian agriculture stress that what Gorbachov has pushed this year is but the implementation, with only slight changes, of the already-promulgated 1982 Food Program of Brezhnev. A study published by the NATO Economics Directorate in Brussels outlines the essentials of the 1982 Food Program. Designed initially to run seven years until 1990, its central aim is to improve the Soviet diet by shifting the composition away from starches and carbohydrates to a diet of more meat, vegetables, and fruit. The aim of that program was to increase output of meat, grains, and basic foods and at the same time to reduce losses along the entire food chain.

Loss estimates in Russian agriculture are very difficult to calculate. But by all accounts, they are staggering. Some informed estimates have been made. The heart of the 1982 reform was to make the Agroindustrial Complex "an independent unit of planning and management. This will make it possible to combine more efficiently territorial, branch, and target-oriented planning" (*Izvestia*, May 28, 1982). The goals of these Agroindustrial Complexes are to act through local "agroindustrial associations" in order to practice "zonal systems of agriculture"; intensify production; construct food processing plants at the site of production; increase financial autonomy for farms.

What Gorbachov has attempted in the past 18 months is little more than implementing what has been stalled or sabotaged by the bureaucracy for six years during the Brezhnev-Andropov-Chernenko-Gorbachov succession battles and the delays in domestic programs. He was a co-author of the 1982 plan.

A 77 billion ruble carrot?

The original Brezhnev Food Program of 1982 carried the price tag of a "seven-year effort to reduce food wastage and upgrade food processing and storage by a 77 billion ruble investment program." This number, and especially its inflated Western ruble-dollar equivalent of \$127 billion (official Russian exchange rate is R = \$1.65), is currently being dangled in front of Western European and U.S. agro-industry export firms as an imminent possible market for their exports.

"The Soviets are re-circulating this figure in order to encourage generous credit terms from the West," one Austrian expert stresses. The 77 billion ruble figure was developed during the early 1980s, when oil and gas export prices to the West were at extremely high levels.

"You must look at when the food plan was produced," one West European expert on Soviet agriculture problems stressed in recent discussion. "Now, today, because of falling oil revenues, the Soviets must correct these plans. It is not possible to invest as much as thought in the past. Hence, what I call their 'privatization' is the result of their lacking money," he stressed.

"If you lease soil to the farmer for up to 50 years, it costs

you, the state, no money, so the new farm policy is designed simply to increase output without increase of investment. The problem is that the local barriers to this change are terrible. Local authorities are sabotaging the implementation. And the state is having severe problems finding farmers willing to sign such a lease."

In addition, he reports that harvesting machinery is in generally poor condition, with spare parts lacking. If you put together peasant indifference, rotting of grain in storage for lack of inside storage or covering, and lack of efficient transport infrastructure from field to processing center to city, best estimates are that Russian grain loss between field and consumption is between 25-33%. The comparable figure for Western Europe is 5-8%. This then means that the net effect of a 200 million ton harvest is between 135-150 million tons of usable grain.

The dimensions of the Soviet food problem are staggering. But every Western agronomist intimate with the actual situation inside Russia today stresses the enormous potential to revolutionize the situation and make Russia into a great grain producing country. The principal obstacle, they stress, is not climate or soil, but culture.

Top military brass runs Russian food economy

One of the most striking Soviet developments in 1988 was the militarization of the food economy. The task of upgrading the food sector on a crash basis and meeting the priority assignment of assuring adequate food stocks has been entrusted to a select group of people.

Who is running Moscow's crash program? The same leaders of the Soviet military-industrial complex who directed the Ogarkov War Plan military buildup. Moscow's highly publicized investment shift, where certain defense industry machine tool and other plants have been converted to food industry-earmarked production, is not, as some fools in the West believe, a "shift" from defense to the "civilian" sector. It is the vast augmentation of the military sector to include the entirety of Soviet agriculture and food industry under its jurisdiction.

The food supply has been accorded *military-security* priority number one, a decision institutionalized at the February 1988 CC Plenum with the following key personnel changes:

1) Yuri Maslyukov, previously in charge of the military industry component of the State Planning Agency,

Gosplan, was made the boss for Gosplan itself, i.e., put in charge of *all* state economic planning.

2) That Plenum appointed one Oleg Baklanov to Central Committee Secretary. Baklanov had been the boss for all Soviet missile and space-based military equipment production, in short, the person most entrusted by Ogarkov to successfully implement the Soviet offensive missile and "SDI" style pre-war buildup programs. In the view of this writer, this was the most stunning illustration of Moscow's wartime priority assigned to food. Baklanov is now in charge of expanding and modernizing Soviet food storage, transport, and processing, and is in charge of the strategic stockpiling program.

Moscow is already preparing military conquest options to secure food supplies. The first case has already occurred, with the de facto partition of Afghanistan. Moscow is keeping northern Afghanistan under permanent occupation, for geopolitical reasons, but also because the north is Afghanistan's breadbasket. Besides feeding the northern population, the north's annual surplus of wheat feeds the rest of Afghanistan—another 10 million people.

In the partitioning of Afghanistan, that wheat surplus will go to feed Soviet Central Asia, freeing the European U.S.S.R. from this burden. Afghanistan's north also produces a cotton surplus, which now is part of the Soviet cotton crop, thus giving Moscow the ability to transfer some of the cotton lands in Central Asia to wheat crops.

—Konstantin George