

## Shock therapy ravages Russia's food production

by Robert Baker

March is the month for preparations for spring planting in the vast Eurasian farm region of the republics of the former Soviet Union. This year, the question of sowing grain constitutes a strategic issue of first importance.

During the mid-1980s, the Union of Soviet Socialist Republics accounted for about 11% of the world's total grain output, and about 6% of the world's population. Then, after the breakup of the Soviet bloc, under just three years of "shock therapy" overseen by the International Monetary Fund (IMF), agriculture output declined—along with the rest of the physical economy—by at least 30% overall.

Almost overnight, output in the extensive grain belt of the former Soviet Union dropped to at most 8% of the world harvest, itself declining relative to need. After some initial relief stocks from western Europe, no food imports have been organized to make up the gap. The consequences of this situation have been portrayed only piecemeal in the western media: empty food shelves, long bread lines, malnutrition, lost crops for want of equipment and lack of fuel. But the total picture has not at all been presented. You might even think there has been "one bad season," or just an "adjustment" period for private farming to "take hold." Nothing could be further from the truth.

Not only is the food supply shrinking in volume, but the physical means and the social organization to produce food are in the process of disintegration as well. This is the background from which to judge the criminality of the latest decision of the Group of Seven nations (United States, Germany, France, Italy, United Kingdom, Canada, Japan) which met on Feb. 26 in Germany and declared that IMF conditionalities must continue in eastern Europe and the former Soviet Union. Continue these, and the conditions for famine and war are guaranteed.

Russian Security Council member Mikhail Maley said in an interview to the Paris daily *Le Figaro* on Feb. 18: "Agriculture has no more fertilizer, no more coal. If we don't take exceptional measures, the sowing will not be able to be done on time."

FIGURE 1

The countries of the former Soviet Union



In order to evaluate the crisis state of agriculture, and the need for the appropriate emergency policy changes and economic measures, *EIR* has assembled up-to-date data from the U.S. Department of Agriculture (USDA), the U.N. Food and Agriculture Organization (FAO), Europe-based farm trade journals, and press accounts from the former Soviet Union. (We are employing the term FSU in this report solely to reflect the organization of the statistical base.)

What follows is a series of graphs and tables summarizing the plunge in output of basic foodstuffs since the late 1980s, the decline in inputs used—land area, fertilizer, equipment—the fall in food imports, and the decline in per capita consumption. Most of the data and discussion refer to the overall situation in the former Soviet Union (Figure 1). In addition, selected data are given for certain features of agriculture in the Russian Federation, Ukraine, and Kazakhstan, because these three countries account for over 70% of the production of many staple food products in the FSU. Figure 2 shows the percentage of population in these respective locations, and their relative shares of output of major food and farm commodities.

**Malnutrition growing**

The dire picture is summarized by a recent account in the Moscow weekly *Argumenty i Fakty*, which reported on widespread malnutrition. Bread and potatoes are the almost exclusive diet of many families. According to the Moscow journal, over 1989-93, meat consumption in Moscow fell from 75 to 58 kilograms (kg) per capita per annum, milk and dairy products fell from 397 to 298 kg, vegetables fell from 91 to 77 kg, and fruit fell from 41 to 37 kg per capita.

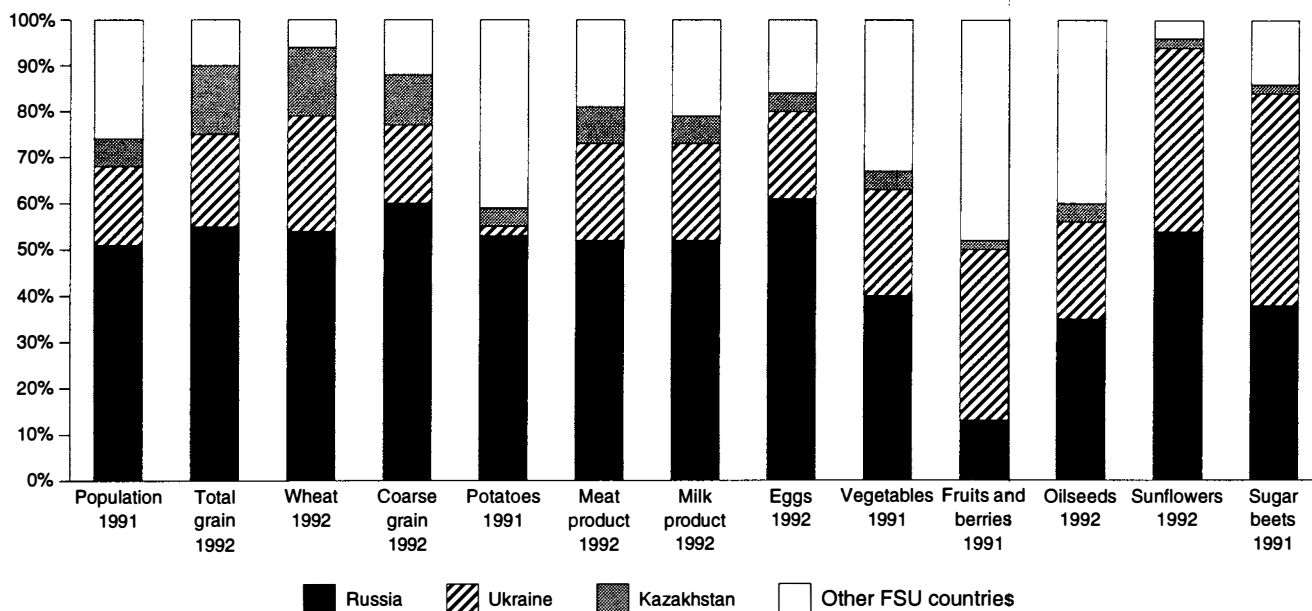
Not only did the amount of food consumed decline, but the quality of food is also much worse. Pig fat and bones, for example, are now counted as “meat.” A recent survey among Moscow students ages 10-15 showed that 50% do not consume any milk or dairy products. Long lines form before dawn outside slaughterhouses, just for the bones.

The situation with vegetable and fruit consumption is no better. Roughly 50% of young men drafted into the army are disqualified even by the most cursory medical examination.

Recent studies in Bryansk and Kaluzhskaya *oblasts* showed that, respectively, 96 and 90% of the population suffer from vitamin deficiency. In the Kaluzhskaya region,

FIGURE 2

**Relative shares of population and food production in the countries of the former Soviet Union**  
(percent of total in entire FSU)



Source: Compiled from various U.S. Department of Agriculture publications.

68% of the inhabitants suffer severe vitamin deficiency, which may lead to an outbreak of scurvy. Many people report that even in prisoner-of-war camps, food consumption was higher.

Indicative of the government's concern about the food crisis, Aleksandr Zaveruykha, Russian deputy minister for the food industry, promised last month at a meeting in Smolensk that the government in Moscow "wants to do anything possible to prevent the population from becoming completely impoverished."

**Fall in per capita food intake**

Figure 3 gives per capita weights of declining consumption of various food items in the Russian Federation, which has approximately 51% of the population of the FSU, for the period 1980 through the "shock therapy" period to 1993. You can see that potato consumption has increased by 26% since 1988, going from 104 kg per capita in 1989 to 131 kg per capita in 1993, as higher-protein foods such as meat become less affordable and scarcer. People are scrambling to grow potatoes on private plots, where most of the national crop is produced (see box).

During approximately the same period of time, *EIR* estimates that average kilogram consumption per capita of protein-rich meat, eggs, dairy products, and fish has fallen drastically. Total meat consumption fell 29%, from 75 kg per capita in

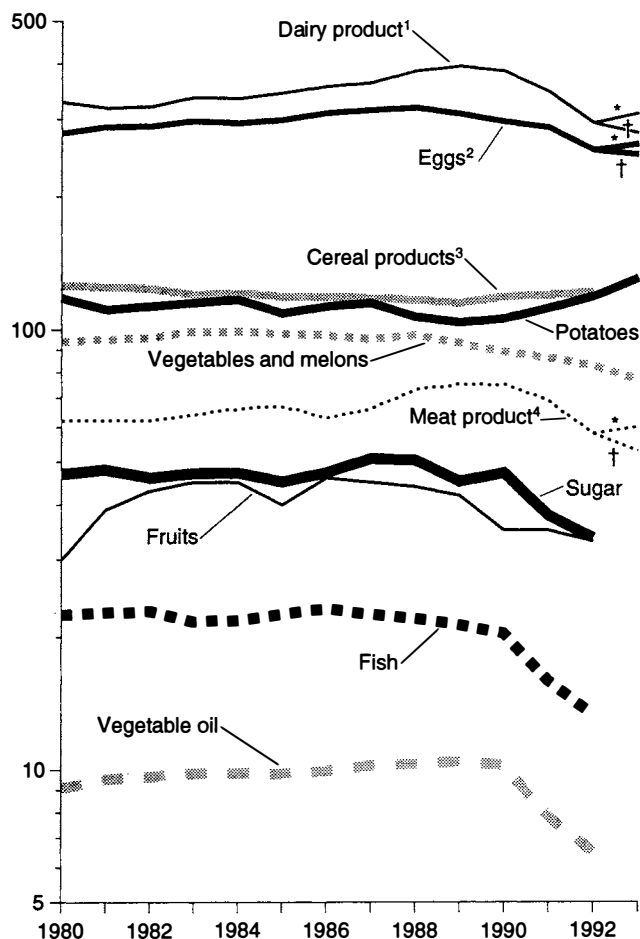
1989 to 53 kg in 1993. Egg consumption fell 21%, from 319 eggs per capita in 1988 to 250 in 1993. Dairy products consumed fell 29%, from 386 kg per capita in 1988 to 280 kg in 1993. And fish intake fell 43%, going from 23.2 kg per capita in 1986, to a projected 13.2 kg in 1993. (Remember, pig fat and bones are considered as meat.)

Contrast the above to 1988, when a deputy chairman of the U.S.S.R. State Planning Committee (Gosplan) indicated that a significant step in eliminating unmet demand for meat would be by increasing meat production by 30-35% and milk production by 20-25%. This means that in 1988, actual annual demand for meat was over 80 kg per capita.

Between 1988 and 1992, per capita vegetable and melon consumption dropped 21%, per capita consumption of sugar, vegetable oil, and fruit declined 34%, 38%, and 25% respectively. This pattern of declining diet holds true throughout the FSU. In many of the smaller republics, it is much worse, as more reports for 1993 come in.

In the Russian Federation, state output of flour and bread in 1993 fell 15% and 11% respectively, as the result of the elimination of state subsidies. The withdrawal of these subsidies resulted in large hikes in retail bread prices last year, with bread prices in Moscow rising from 263 rubles in early October to 477 rubles by mid-December. These declines were not made up by food imports, as will be documented below.

**FIGURE 3**  
**Annual consumption of selected food products in the Russian Federation, 1980-93**  
(kilograms per capita)



1. Milk equivalent.  
2. Number of eggs.  
3. Flour, groats, and pulses; bread and pasta in flour equivalent.  
4. Meat equivalent, including fat and offal.  
\* USDA estimate.  
† EIR estimate.

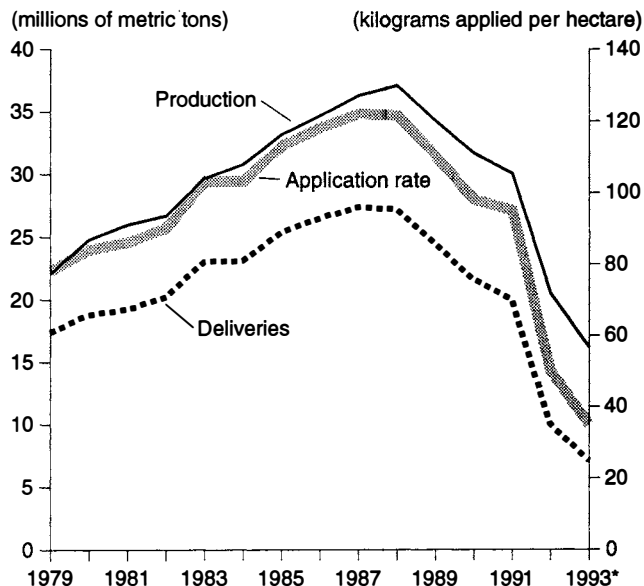
### Fall in farm inputs

The decline in food output is far from a matter of a few "bad seasons." Rather, it reflects how basic productivity relationships in the crop and livestock chain are being destroyed. Look, for example, in **Figure 4**, at how the sheer volume and rate of application of fertilizers have dropped in the FSU.

Besides the lack of needed minerals, the absence of plant protection chemicals and machinery is even worse.

Begin with cultivated land area itself.

**FIGURE 4**  
**Production and deliveries of fertilizer in the former Soviet Union**



\* EIR projection.

Source: U.S. Department of Agriculture, "Former U.S.S.R., Situation and Outlook Series," May 1993.

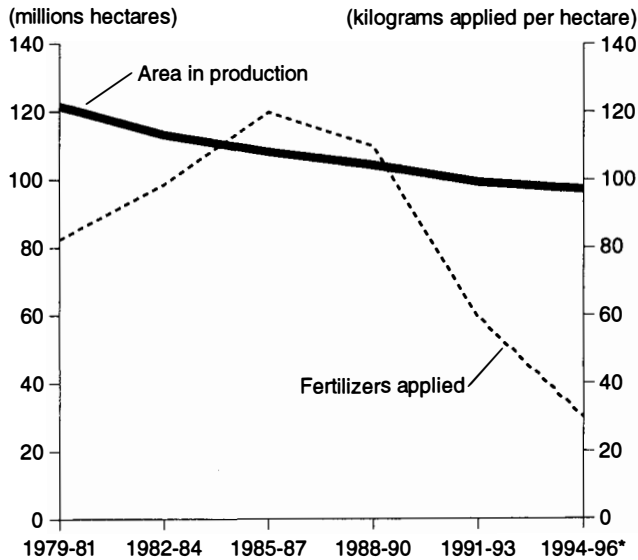
**Land area.** The number of hectares of land (see **Figure 5**) in the FSU, cultivated for grain production (wheat, coarse grains, and rice) fell 18% (22.2 million hectares) from a three-year average of 121.5 million hectares per year during the 1979-81 period, down to an average of 99.3 million hectares per year during 1991-93. Moreover, the quality of the land in use is declining, in terms of factors of productivity.

**Fertilizer.** Mineral fertilizer output in the FSU is the largest in the world, having surpassed U.S. production in 1972, and is primarily concentrated in Russia, accounting for 50% by weight. Next is Belarus with 20%, and Ukraine with 15%. In 1988, U.S.S.R. production peaked, exceeding the total combined production of the United States, France, West Germany, and Great Britain, accounting for approximately one-third of world ammonium (nitrogenous fertilizer) trade. But since 1987, fertilizer exports increased from these FSU production regions, while domestic use collapsed—a point causing great anger among FSU farmers.

From the late 1960s to the late 1980s, fertilizer use in the FSU increased about four-fold. Between 1991 and 1993, as shock therapy free market reforms scrapped price regulations for farm inputs, fertilizer prices climbed two to three times as fast as the prices of farm output. As a result, the Russian

FIGURE 5

**Area in grains production in former Soviet Union shrinks since 1979**



\* EIR projection.

Source: U.S. Department of Agriculture, "Former U.S.S.R., Situation and Outlook Series," May 1993.

Ministry of Agriculture estimated that less than one-fourth of all crops were fertilized in 1993.

According to the USDA and other expert sources, per hectare application rates of fertilizer in the FSU dropped 71% between 1988 and 1993, going from 113 kg per hectare to an estimated 35 kg in 1993 (see Figure 4). Total tons delivered to the farm regions is projected to have dropped 74% from 121.5 million tons in 1988 to 7.1 in 1993. And fertilizer production is down 16.2 million tons in 1993, which is a drop of 56% from the 1988 high of 37.1 million tons. The inflated prices are now over 100,000 rubles per ton.

In 1992, FSU fertilizer exports had a considerable depressing effect on world market prices—for example, in potash. An undervalued ruble made fertilizer exports highly profitable in the early 1990s. In order to ensure adequate domestic supplies in 1992, the Russian government attempted to halt fertilizer exports by imposing quotas. In 1993, attempts to restrict fertilizer exports were pursued by giving sole right of export to the Russian agrochemical company Rosagrokhim, and all fertilizer shipments through the port of Odessa were ordered stopped and an investigation was begun of enterprises engaged in the unlawful export of agricultural chemicals. As a result of depressed prices, several western nations imposed protectionist measures on certain fertilizer products.

The factor most limiting mineral fertilizer's effectiveness has been the relative lack of complementary chemical pesticides. Without the latter, heavy fertilizer doses often merely feed weeds; plus, increased grain production is lost to insects.

Russian Deputy Prime Minister Aleksandr Zaveryukha, who has responsibility for the agricultural sector, told *Rossiyskaya Gazeta* in December 1993 that "large areas have not received mineral fertilizers, organic fertilizers are practically not being transported out into the fields, and there are no pesticides and herbicides, so there is massive infestation of fields" with weeds and insects.

Dr. Yablokov, a respected Russian academician, notes that the 1987 pesticide use in the former U.S.S.R., at 0.4 kg per hectare, was only a fraction of the levels used in many developed countries—1.8 kg in the United States, 18.5 kg in the Netherlands, 17.6 kg in Japan, 13.3 kg in Italy, and 4.5 kg in the Federal Republic of Germany. The FSU produced only two-thirds of the pesticides needed by its agriculture in the late 1980s. Today, in the Russian Federation, for all practical purposes the farm chemical industry—the main producer and exporter of plant protectants in the FSU—has collapsed.

In the mid-1980s, the Soviets halted the production of a number of their top chemicals and became dependent on imported pesticides. However, hard currency shortages, exacerbated by the new need to pay hard currency for imports from the former Comecon countries, contributed to a drop in 1991 imports to an estimated 20,000 tons from 154,000 in 1985. In 1992, Russian farmers used only 16% of the insecticides and fungicides used in 1988; 43% of the seeds were treated, and 29% of the past rate of herbicides was used.

The production of plant protection agents (herbicides, insecticides, and fungicides) in the FSU during the first half of 1993 was only 27,000 tons, down 87% from the same period in 1985. This was compounded by a 35% decrease in imports. USDA sources say that currently the FSU is completely dependent on imports, since domestic production for 1994 is shut down completely.

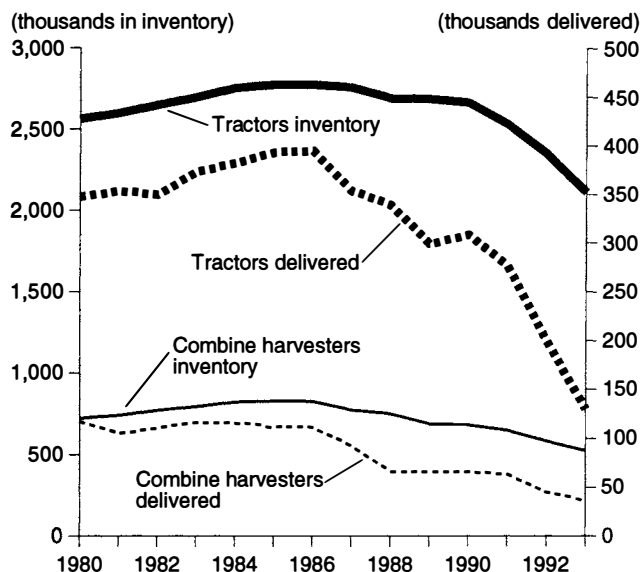
**Fuel.** Disruptions in harvesting operations caused by interruptions in the supply of fuel adversely affect crop output. Deliveries of diesel fuel (13.4 million tons) to Russian Federation farms in 1993 were down 18% from a year earlier (compared to a 16% drop in 1992), and deliveries of gasoline were down 30% (compared to a 13% fall in 1992).

**Machinery.** Billions of rubles worth of farm machinery have accumulated in FSU government warehouses. Farms could not pay to buy the equipment when machinery prices climbed 19 to 35 times, along with fuels and lubricants, while procurement prices for farm-produced agricultural commodities increased only ten-fold.

Sources at the USDA and official FSU statistics indicate that farm equipment production in the FSU fell about 60% in 1993 compared to 1992. Dereregulated tractor prices have

FIGURE 6

### Inventories and deliveries of tractors and harvesters in the former Soviet Union



Source: U.S. Department of Agriculture "Agriculture Statistics of the Former U.S.S.R. Republics and the Baltic States," No. 863, September 1993.

jumped from 12,000 rubles in 1988 to as high as 13,000,000 rubles in 1993—over a thousand-fold. **Figure 6** shows how tractor deliveries to FSU farms dropped 67% below the high in 1986, going from 395,000 per year to 130,000 per year in 1993.

Russia, Ukraine, and Kazakhstan produce respectively 60%, 26%, and 6% of the agricultural machinery in the FSU. Production of tractors in Russia fell 54% in 1993 (89,000) compared to 1991 (193,000).

Low availability of specialized application equipment is the major factor limiting the effectiveness of mineral fertilizer, insecticide, and herbicide usage. Therefore, an estimated 14 million tons of nitrogen, phosphate, and potash nutrients are washed out of sloping lands each year—three to four times desired norms.

In 1984, some 116,000 new combines (Figure 6) were delivered to FSU farms. The chief of the Russian Ministry of Agriculture's main Administration for Crop Production, Ivan Gridasov, told the Moscow newspaper *Rossiyskiye Vesti* on Aug. 28, 1993, "Twenty thousand fewer combine harvesters have taken to the fields because of a shortage of spare parts and fuel. By the end of 1993, combine deliveries have fallen 69% to a projected 36,000." Combine inventories are projected to fall in 1993 to 525,000, which is 37% below the 828,000 in inventory in 1985.

While 18% of grain combines were inoperable because of

mechanical problems in mid-1990, the number of inoperable combines rose to 26% in 1992, and to 32% in mid-1993. Thus, over the course of eight years, the farmers of the FSU have lost almost 50% of the useable mechanical grain harvesters.

The production of grain combines in Russia declined 40% in 1993 (33,760 units) compared to 1991 (55,400).

Terrible difficulties are being faced in planting fall and spring crops in the FSU. Primarily as a result of a late start caused by the delayed harvest, poor weather conditions, decisions by farms to sow less due to the high cost of inputs, and the lack of cash on hand, the area seeded to winter grains (not including private farms) in the FSU last year for harvest in 1994 fell markedly for the second consecutive year. Area seeded to winter grains for harvest in spring of 1994 was reported at 14.3 million hectares, down 30% from 1991.

In preparing for 1994 spring seeding operations, Russian farms plowed only 41.9 million hectares during the fall of 1993, down 31% from 60.9 million hectares in 1990. The cumulative effect is that less and less land is getting planted and farmers cannot overcome the increasing workload being placed on their shrinking machinery inventory.

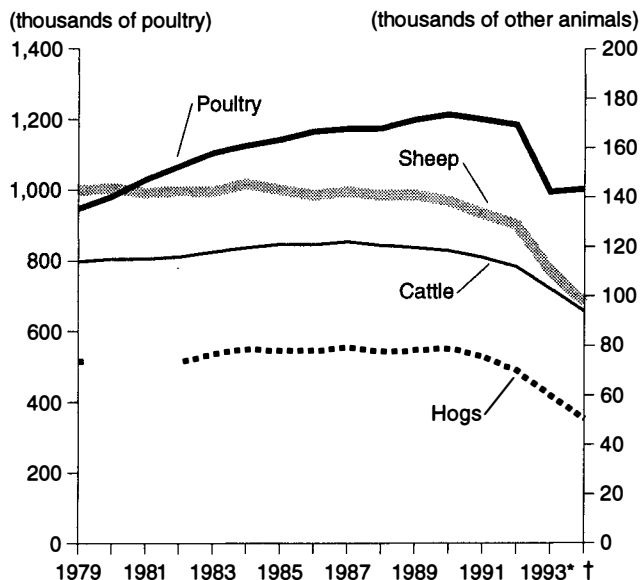
### Destroying productivity—land and livestock

While land area use for grain production is shrinking, improvements in land have come to a complete halt. Budgeted investment for land improvement has decreased significantly in the FSU and is expected to fall further in 1994. In Russia itself, approximately 66% of the 213 million hectares of agricultural land suffers from insufficient and unpredictable rainfall. More than one-half of Russian agriculture lands are swampy, highly acidic, or salinated. Since 1985, commissioned projects for new land irrigation, or improved drainage, declined 85%. About 127 million hectares in Russia suffer from severe soil erosion, an area which grows by 400,000 to 500,000 hectares annually and needs terracing badly. Only 5% of Russian land is drained properly. According to estimates, 79% of cultivated land, 66% of natural hay meadows, and 90% of pastures need improvement. Over 20% of farm land is susceptible to wind and water erosion and needs conservation terraces.

After years of massive state subsidies to the state-controlled livestock sector, the initiation of the January 1992 price "reform" began a process whereby state subsidies to both livestock producers and meat consumers were slashed, and western cartel intervention, black marketeering, chaos, and all manner of destruction took place. (See **Figure 7**).

FSU cattle inventories fell 16% to 103 million head in 1993, down from 122.1 million head in 1987. Poultry numbers dropped 18% to 995 million head in 1993 from a high of 1,214 million head in 1990. Hog numbers fell 24% in 1993 to 60.2 million head, down from 79.5 million head in 1987. Sheep numbers were down 24%, in 1993, to 110.7

**FIGURE 7**  
**Decline in livestock inventories in the former Soviet Union**



\* Estimated.  
 † Projected 1994.

Sources: U.S. Department of Agriculture, "Agricultural Statistics of the Former U.S.S.R. Republics and the Baltic States," No. 863, September 1993; subsequent USDA data.

million head, compared to 145.3 million head in 1983. *EIR* forecasts another 9-16% drop in livestock numbers in 1994, unless emergency measures are implemented immediately.

More incidence of disease among herds due to poorer feed rations and reduced availability of veterinary medicines also reduced inventories. **Figure 8** shows the decline in livestock inventories in Russia, 1987-94. Compared to 1992, birth rates per 100 head of breeding stock in 1993 fell 3.3% for cows, and 7.8% for hogs. Death rates per hundred head of breeding stock in 1993 increased 10% for calves, and 13.8% for hogs.

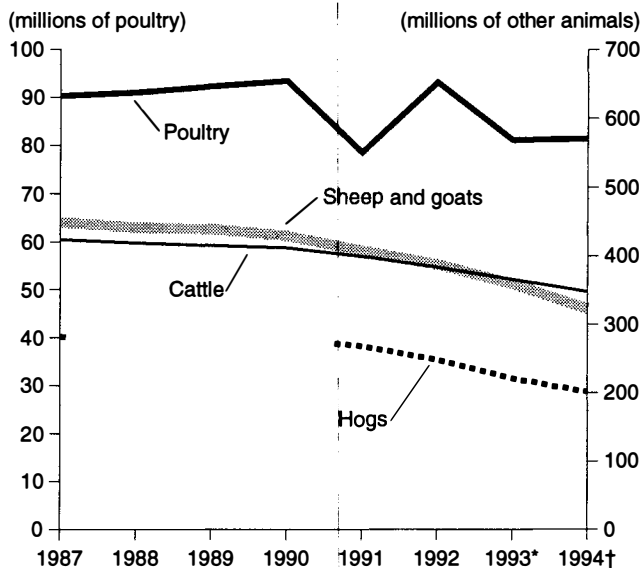
Average daily weight gain in hogs and cattle has fallen respectively 20% to 288 grams per day, and 26% to 370 grams per day, compared to 1989.

### Fall in food output and imports

**Figure 9** shows the overall pattern of decline in production of key grain commodities by averaging the yearly production of three consecutive years, starting in 1979.

The graphs indicate that, when comparing the three-year average production output in the 1988-90 period when compared to the 1991-93 period (the shock therapy years), average production fell significantly for every crop grown in

**FIGURE 8**  
**Decline in livestock inventories in the Russian Federation**



\* *EIR* estimate.  
 † *EIR* projection.

Source: U.S. Department of Agriculture, "Agricultural Statistics of the Former U.S.S.R. Republics and the Baltic States," No. 863, September 1993.

the FSU—except for potatoes, which had a slight increase. Almost 90% of all potatoes are grown in private allotments as survival rations.

In 1988, the U.S.S.R. Agricultural Ministry had set a goal of producing 250 million metric tons (mmt) of all grains by 1990 and 280 mmt by 1995. Overall, combined average yearly wheat and coarse grain production for the 1991-93 period is projected to decline to 171 mmt, about 100 mmt short of previous practical objectives. Yearly average coarse grain and wheat production in the FSU is down respectively 11% (89.3 mmt to 81.3 mmt) and 9% (96.7 mmt to 89.3 mmt).

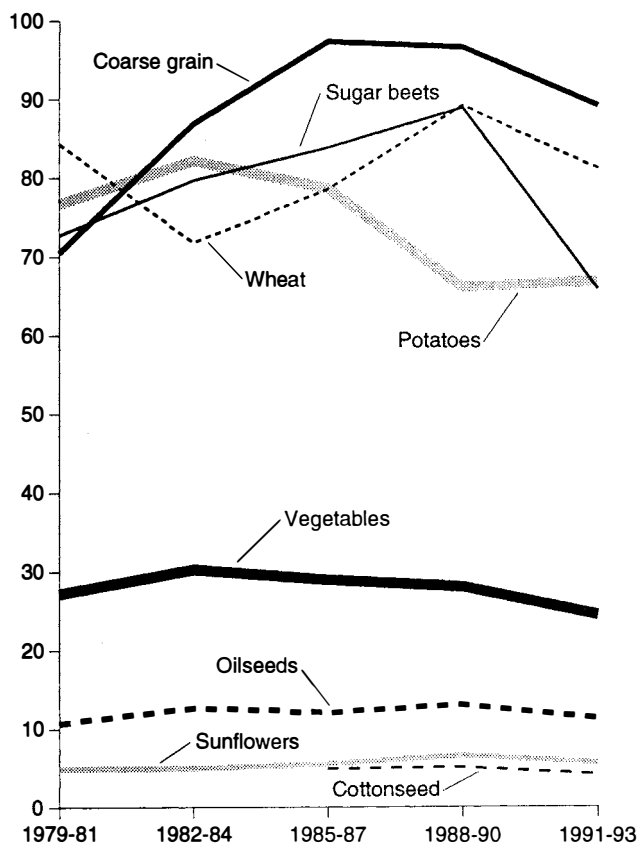
Vegetable and sugar beet volumes are down respectively 20% (28.1 mmt to 24.5 mmt) and 26% (89 mmt to 66 mmt). Oilseeds (12.95 mmt to 11.2 mmt) and sunflowers (6.6 mmt to 5.66 mmt) are both down 16% from the previous three-year period.

Now examine the drop in livestock products. As price "liberalization reform" in 1992 and food subsidies were lifted, food prices increased dramatically in the FSU. With less purchasing power, the public forsook livestock products for cereals-based food; livestock producers found fewer willing purchasers, and found high grain prices for their required livestock feed. These combined factors caused producers to

FIGURE 9

## Decline in output of major food crops in the former Soviet Union

(millions of metric tons)



Source: U.S. Department of Agriculture, "Agriculture Statistics of the Former U.S.S.R. Republics and the Baltic States," No. 863, September 1993.

cut back production of livestock products, as shown in **Figure 10**, both for the FSU and for the Russian Federation.

The FSU's production of milk products dropped to a projected 86.5 mmt by 1993, down 18% from a high point in 1989. Total meat production, including beef, pork, mutton/lamb, and poultry, dropped to a projected 14,800 mmt by 1993, down 27% from its peak in 1989. Egg production dropped to 65.5 million eggs in 1993, an 18% fall since 1988.

As food output fell, food imports also dropped drastically over the past 36 months. **Figure 11** shows the decline in the FSU of imports of wheat and coarse grains, from 1987-93. Total wheat and coarse grain imports for all 15 republics of the FSU declined 56%, going from 41.5 million tons in 1988 to 18 million tons in 1993.

The financial situation of the FSU, under the International Monetary Fund's conditionalities and shock therapy, dictated lower grain imports. Hard currency constraints compli-

cated Russia's ability to service its debt. At first, the European Community donated significant quantities of food outright. However, as the Thatcher-Bush shock therapy policy was enforced, such donations ceased. From then on, almost all of FSU grain imported since 1991 has been with the use of export credit guarantees—advanced from the government of the home office of the exporting companies, which themselves are a non-governmental cartel. Since 1991, almost all U.S. grain exports to the FSU—to Russia in particular—were financed using the federal mechanism called GSM-102 export credit guarantees. But as of 1992, Russia was suspended from the GSM-102 program for defaulting on its repayments, and as of May 1993 was in arrears by \$850 million. As a result, food aid and concessional loans will be the major route for financing U.S. grain exports to the FSU in 1993-94, and U.S. foodstuffs exports to the FSU in fiscal 1993 are down over 40% from fiscal 1992. This is shown in **Figure 12**.

In 1993, food imports by the Russian Federation dropped significantly from 1992. Meat and poultry imports dropped respectively 74% (146,000 tons to 36,000 tons) and 87% (30,700 tons to 4,000 tons). Imports of grain dropped 60% (28.9 mmt to 11 mmt). And wheat flour and soy oil imports dropped respectively 93% (700,000 tons to 49,000 tons) and 81% (58,000 to 11,000 tons).

### Restore productivity

**Soil fertility.** The year 1993 was the sixth consecutive year in which deliveries of fertilizers to FSU farms fell (with the bulk of the decline beginning in 1992); and yet crop yields have not fallen as much as most observers would expect, because of fortuitous growing weather in 1993. While weather plays an important role in grain production patterns in the FSU, many Russians argue that while yields did not rise at the same rate as fertilizer input use, year-to-year yield fluctuations were curtailed, and could rise again.

Other analysts maintain that it takes 3-4 years before the full impact of fertilizer input declines will be felt, since only a portion of phosphate and potash applied is available the first year of application. The remainder is released during the second and third years, and thus yield reductions of a major magnitude could most likely occur in 1994.

This dynamic can be seen by analyzing fertilizer application on farms in the FSU. (See **Figure 13**.) While the average amount of fertilizer applied per hectare increased about 16% in each of the three-year periods between 1979-81, 1982-84, and 1985-87, the average yield increase per hectare did not show up significantly until the succeeding three-year period, by 10-13% per year.

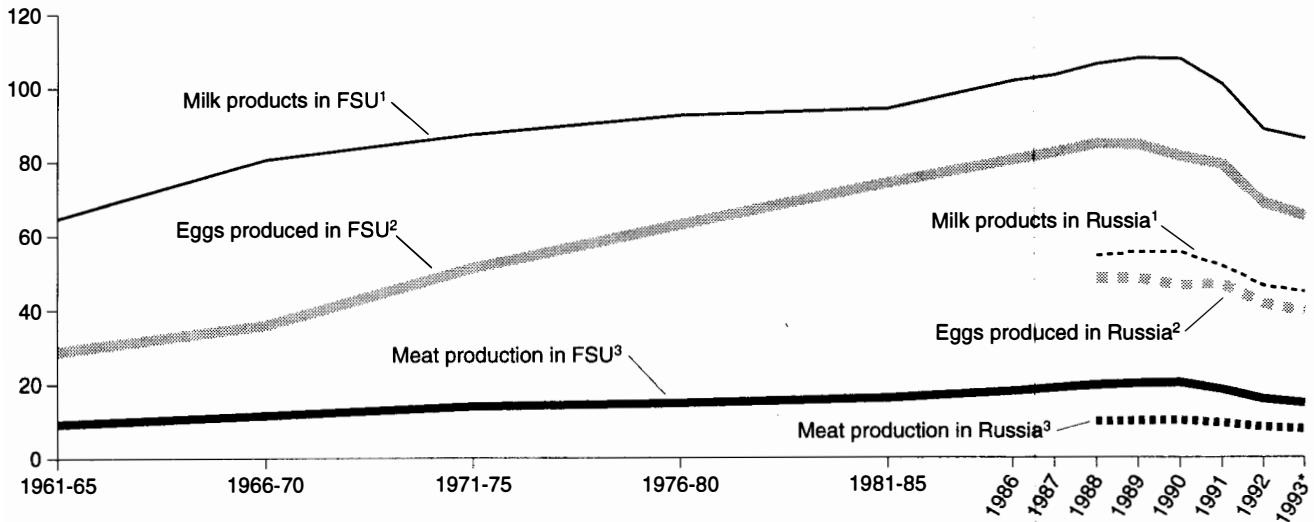
However, starting in 1988-90, the amount of fertilizer applied per hectare in the FSU declined 8% (119.8 kg to 109.8 kg per hectare), and this showed up in 1991-93 as an average 5% drop in yields per hectare (1.8 tons to 1.71 tons



FIGURE 10

**Milk, meat, and egg production in former Soviet Union is down to 1970s levels**

(millions of metric tons)



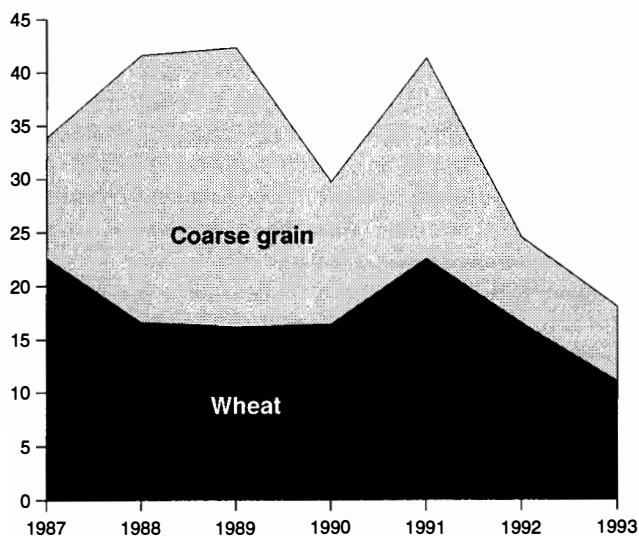
- 1. Milk equivalent.
- 2. Millions of eggs.
- 3. Includes fat and offal.
- \* EIR projection.

Source: U.S. Department of Agriculture, "Agriculture Statistics of the Former U.S.S.R. Republics and the Baltic States," No. 863, September 1993.

FIGURE 11

**Imports of wheat and coarse grain into the former Soviet Union**

(millions of metric tons)



Source: U.S. Department of Agriculture, "Former U.S.S.R., Situation and Outlook Series," May 1993.

per hectare).

With very little fertilizer, next to no herbicides for weed control, and unprecedentedly low inventories of machinery and fuel supplies for mechanical cultivation, most farmers would agree that the land could turn into a choking weed patch. Since the average yearly fertilizer rates for the 1991-93 period are down 45% from the previous three-year period, in the 1994-96 period grain production in the FSU could drop another 20-25% or more.

**Grain.** With the benefits of modern grain harvesting equipment, the FSU could save millions of tons of grain. In May 1988, according to *Pravda Ukrainy*, Soviet economist Nikolai Shmelev stated that "every year we [the U.S.S.R.] lose as much as 25% of our grain" to poor harvesting practices and bad processing, storage, and transport.

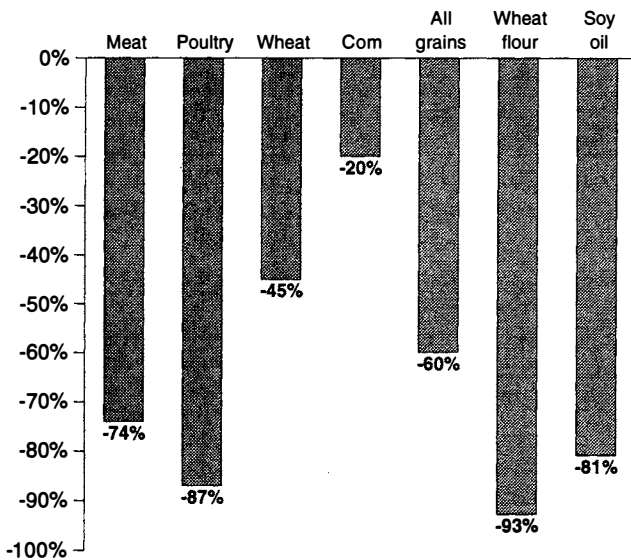
In March 1989, Soviet General Secretary Mikhail Gorbachov told Moscow domestic television, "Our losses in grain harvesting and pre-storage treatment amount to 15-20 million tons per year. About as much is lost in storage and processing. In all . . . the losses equal our purchases abroad."

One authority states that each year, 60-80 million hectares of grain are not harvested quickly enough, resulting in losses of 17-20 million tons. Russian farmers failed to collect 30% of the entire harvest grown in 1993, because of poor quality harvesting equipment and no spare parts, according to Moscow Interfax in December 1993.

FIGURE 12

### Sharp drop in food imports into the Russian Federation

(percent drop from 1992 to 1993)



Source: U.S. Department of Agriculture, "Former U.S.S.R., Situation and Outlook Series," May 1993.

Another source notes that if the time for harvesting could be cut by 7-10 days, yields could be increased by 0.3-0.4 tons per hectare. If applied to all grain areas, the faster harvest could produce an additional 30-40 million tons annually.

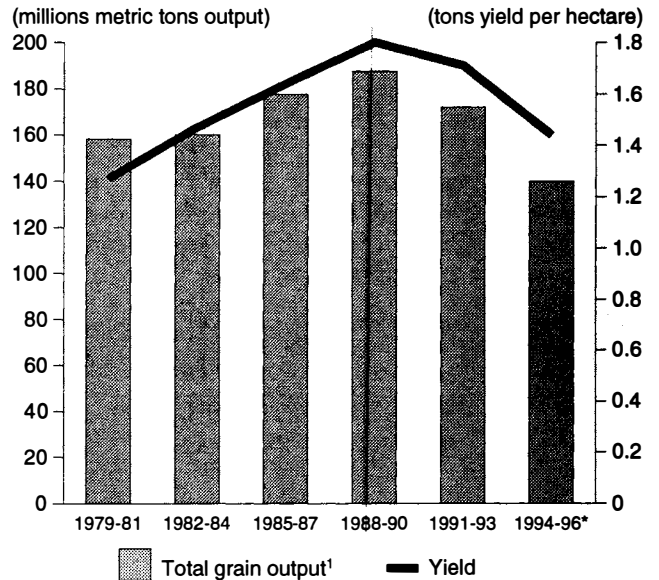
**Livestock.** Increased output of livestock products and livestock productivity could be obtained by improving FSU feed rations rather than inventories. Because of a shortage of high-quality livestock protein feed, one-third of FSU poultry feed, one-third of hog feed, and one-half of cattle feed output is reportedly deficient in protein. In 1988, corn made up 68.4% of feed rations, compared to 45% in the United States and Europe, and high-protein oil meal comprised only 9% of the Soviet Union's mixed feeds, compared to 25% for the United States and Europe. The daily rate of gain for Soviet cattle and hogs was only about 50-60% of the U.S. level; milk yields were less than 50% of the U.S. level.

Now, after "shock therapy," it is much worse. For example, in 1991 the U.S. hog industry produced 7 million tons of pork from 57 million swine. In the FSU, productivity is 30% below the United States, and only about 6 million tons of pork were produced from about 70 million swine.

FSU specialists estimate that if feeds were properly balanced with oilmeals and other additives, grain use could be reduced annually by 20-30 million tons, could reduce the amount of feed needed to produce a pound of meat by 10-

FIGURE 13

### Total grain output and per-hectare grain yield in the former Soviet Union



1. Wheat, coarse grain, and rice (clean weight).

\* EIR projection.

Source: U.S. Department of Agriculture, "Former U.S.S.R., Situation and Outlook Series," May 1993.

15%, and could increase meat output by 2 million tons annually from the same size livestock herd.

### Officials sound the alarm

The context of vast food underproduction, documented in the graphs, makes clear the meaning of the emergency declarations that have been issued beginning in mid-1993, in Russia and other locations:

- On Sept. 17, 1993, the Supreme Soviet of Russia adopted an emergency declaration designating agriculture to be an "emergency situation." Referring not merely to the current crop year, one of the main aims of the document was stated to be "the preservation of the agro-industrial complex as a basic component part of the Russian Federation economy."

- On Nov. 30, 1993, Russian Federation Prime Minister Viktor Chernomyrdin signed a decree, "On Measures to Give State Support to the Agro-Industrial Complex in 1993-94." To all appearances, this document was dictated not only by the economic situation, but by the Dec. 12 election as well, as it prioritized state payment to be made before Dec. 21 of money owed by the state for farm products supplied by farmers. However, as of early 1994, very little payment had been made. Moreover, the Nov. 30 decree, while it also extended to December 1994 the deadline for farm borrowers



*Russian shoppers outside a milk store. Per capita consumption of dairy products in Moscow has dropped from 397 kilograms in 1989 to 298 kg in 1993, and only 50% of Moscow students ages 10-15 consume any dairy products whatsoever.*

to repay loans, nevertheless, this loan extension is not at the “preferential” rate of 40%, but at the prevailing rate of about 210%.

- On Jan. 28, 1994, Deputy Prime Minister Aleksandr Zaveryukha, in charge of agribusiness in the Russian government, declared at a news conference in Moscow that Russia’s agriculture “failed to overcome the extremely complex financial and economic situation in 1993.” He gave statistics on the billions of rubles of agriculture-related debt, and announced emergency finance measures.

- In February 1994, the Moscow Department of Agriculture issued a report on the crisis in Russian agriculture, stating that more disasters are looming, because this coming year’s collapse in food production is projected to be much worse than that of the last two years.

- On Feb. 18, 1994, Mikhail Maley, Russian Security Council member and official in charge of reconversion of the defense industry (cited above), said in his interview with *Le Figaro* that if the Russian economic crisis—especially in agriculture—continues another three to five months, the current leadership will lose political control, and the only organized force remaining to produce what is required is the military-industrial complex.

In general, in the two-year period, between January 1992 and January 1994, Russian consumer prices increased by 3,560%, and the exchange rate of the ruble went from 225 to 1,750 rubles per U.S. dollar. The Russian State Committee

for Statistics (Goskomstat) has announced that the population’s real monetary income is at most 57% of the 1991 level.

### Huge potential

The potential productivity of the countries of the FSU is enormous. Western European wheat yields are currently 276% higher than in the FSU (5.14 tons per hectare, compared to 1.86 tons per hectare). Coarse grain yields in western Europe are likewise 276% higher than the FSU (4.92 tons per hectare compared to 1.78). There is no reason why, with proper investment and training in modern input technology, grain yields of the FSU could not equal the higher yields of western Europe.

In 1993, the FSU planted 31% fewer hectares of wheat and coarse grains (97.1 million hectares compared to 119.4 million hectares) than in 1980, a difference of 22.3 million hectares. If the total 1980 wheat and coarse grain area, 119.4 million hectares, could be brought back into production levels with yields equal to western Europe, then another 383.7 million tons (201.7 million tons of wheat and 182.0 million tons of coarse grains) could be produced in the FSU, as compared to 1993 levels. *This alone would increase world wheat production by 36%, and world coarse grain production 23% above 1993 levels.* If this improvement were to take place over a 10-year period of investment, this would accumulate into a 38 million ton average increase every year.