

From Food Shocks to Famine: The Impact Of Biofoolery and ‘Global Sourcing’

by Marcia Merry Baker and Christine Craig

Soaring prices for food are hitting everyone, everywhere. For example, internationally, dairy product prices have spiked 50% over six months; grain products are heading the same way. In Mexico, corn tortilla prices are 60% more than last Summer. An immediate cause is the mass displacement of food crops, by fuel crops for ethanol and biodiesel; but the larger cause—inclusive of such biofoolery—is that the globalized agriculture system itself is breaking down. The food price shock comes in the context of the crack-up of the world monetary system, and generalized fuel and commodity hyperinflation. It calls the question of what kind of agricultural capacity must be re-built to restore food security for all.

Over the last four decades, a select few commodity cartels have imposed a policy of “global sourcing”—the euphemism used by the World Trade Organization—for food supplies and farm inputs. Agricultural production has been more and more concentrated at below-cost-of-production locations, connected by long-distance free-trade routes. This has increased vulnerability to crop and livestock diseases, amplified damage from bad weather, added a huge burden of long-haul shipments, and made food increasingly unsafe, and in short supply. The absolute tonnage of world staple grain stocks, is falling back to levels of decades ago.

Adding to this food crisis is the impact of today’s wild speculation in agricultural commodities. Every day, millions of trades in “paper bushels,” backed up by nothing, take place. The futures price of a bushel of (December delivery) wheat jumped up 3.6% on Aug. 30 at the Chicago Board of Trade (CBOT); and up 5.4% the same day on the London markets. London-based wheat futures rose 35% in August alone. For the Chicago Board of Trade, 2006 was its fifth consecutive record year for volume of transactions, with 806 million contracts of all kinds, inclusive of agriculture trades. As of Spring 2007, the trading pace was up 17% over its average daily trading volume in 2006. “We see growth in commodity products worldwide,” was the understated description by CBOT Chairman Charlie Carey, to the Illinois Farm Bureau’s *Farm Week*, in May.

Ethanol futures are a new speculative opportunity. The CBOT introduced ethanol contracts in March 2005, and a surge of trading ensued. The CBOT subsequently offered trading in an electronic form during daytime hours, to extend opportunities for speculation.

Today’s food-price shocks are just the beginning of the

crisis. Unless this insanity is stopped, hyperinflation today means famine tomorrow.

National governments have the responsibility, and the precedents, to act. The following review is provided to aid the thinking required to force the urgent interventions called for. It is necessary as an antidote to the prevailing propaganda lines falsifying the cause of the hyperinflation. One is that the too-numerous Chinese and Indians are eating up all the food, and even adding dairy to their diet. Such an obvious blame game needs no refutation.

The second propaganda line is that your high food prices are caused by “agflation,” as Wall Street and London call it. In their linear pin-ball machine explanations: corn ethanol usage causes corn price hikes; high corn prices cause other food price hikes; consumers suffer, but farmers gain.

A special take on this was released in August by the Worldwatch Institute, in a 450-page book titled, *Biofuels for Transport: Global Potential and Implications for Energy and Agriculture* (Washington, D.C.: Earthscan, 2007), asserting that farm commodity price hikes will mean an economic boom for the rural poor. Worldwatch President Christopher Flavin writes, “Decades of declining agricultural prices have been reversed thanks to the growing use of biofuels. Farmers in some of the poorest nations have been decimated by U.S. and European subsidies of crops such as corn, cotton, and sugar. Today’s higher prices may allow them to sell their crops at a decent price....”

This is all bunk. For sure, use of biofuels is blameworthy. But no one decent, certainly not farmers, is gaining by seeing hunger, disease, and hyperinflation worsen, and famine up ahead. Meanwhile, the indecent agro-cartels and global food retailers—Cargill, ADM, Monsanto, Bunge, Swift, Wal-Mart, et al.—are profiteering off the scarcity and chaos.

Food Prices Soaring

Figure 1 shows the dramatic rise in dairy product prices internationally. The same pattern obtains for other key food items, even if at a lesser rate of increase.

The average U.S. retail price of a gallon of milk has increased more than 15% in just six months (from \$3.29 in January to \$3.80 a gallon in July), and some dairy products by 50%. A color photo of a gallon of milk made front-page news in Harrisburg, Pennsylvania, historically a leading dairy state, because it cost over \$4.00. (*The Patriot News*, Aug. 20, 2007)

In France, milk prices are rising by 5-10%. Germany, the European Union's biggest milk producer, saw the price for 250 grams of butter (just over half a pound) rise in early August from 0.79 euros to 1.19 euros, while fresh white cheese prices rose 40%! The retail price of fluid milk is expected to rise by 50% in September.

The milk hyperinflation is indicative of the food market-basket at large, from grain products, to meats, to sweets. In Italy, the public is nearly up in arms over price increases for pasta. In Naples, a one kilo loaf of bread has jumped from 1.50 euros to 2 in recent weeks. The price of bread in Germany will increase an additional 5% above its already inflated price.

The official rate of food inflation in the United States for the first half of 2007, exceeds all of 2006. A rise of 8% in U.S. consumer food costs this year, is projected by the Bureau of Labor Statistics, which notoriously undercounts. The Commerce Department reported the following "official" price increases, from June 2006 to June 2007:

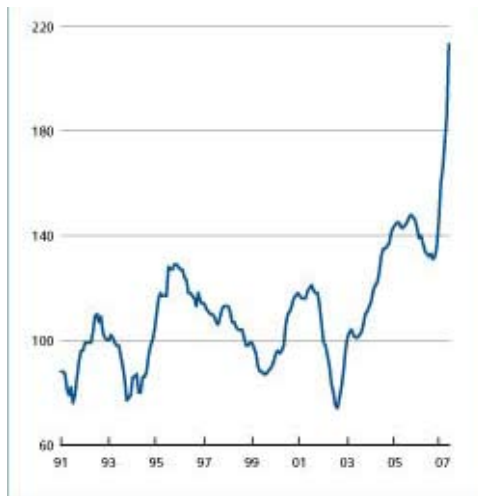
- Oranges and eggs—up 20%
- Frozen juices—up 18%
- Fresh whole milk—up 13%
- Dried beans, peas, and lentils—up 12%
- Apples—up 12%
- Fresh chicken, uncooked beef roast—up 10%
- Fresh seafood, fish—up 8%
- Pasta, rice, cornmeal—up 7%

The pattern prevails the world over. In Argentina, a bread-basket nation, the price of the monthly food market-basket increased by 3.1% in August alone, with the biggest increases showing up for vegetables at 49%. Flour increased by 10%. In Mexico, the Calderón government has vastly increased food imports—corn, rice, sorghum, and powered milk—in an attempt to damp down domestic price increases. Corn purchases abroad increased by 119%.

In Russia, bread prices have risen 7% in seven months, and a "basket" of basic food costs 17% more nationwide this year. Food prices have risen higher in Moscow, and are especially high in the Far East. There is additional pressure on living standards, due to rising utilities costs, which are up 13% this year. "No pay or pension rises can make Russians feel better if essential goods such as bread, flour, milk and vegetables will keep moving up," stressed Russian Federation Council Speaker Sergey Mironov in a speech Aug. 8, calling for government regulation of prices of staples.

Food price inflation is also a big concern in China. On

FIGURE 1
Index of International Prices of Selected Dairy Products, 1991-2007
(1998=100)



Source: UN Food and Agriculture Organization.

Aug. 4, Prime Minister Wen Jiabao visited food markets in Beijing to demonstrate to the public that the government is taking the problem very seriously. On Aug. 8, the People's Bank of China warned about inflation in its second-quarter report. The PBOC called the risk of continuing inflation "worthy of attention" for the nation, and said that the greatest concern is that food price inflation—up over 11% in June—could spread to other consumer goods.

Low World Grain Stocks

Apart from the inflationary effects of speculation, the biofuels binge, and garden-variety price gouging, the stage has been set for food hyperinflation because of falling supplies relative to need. **Figures 2-4** make the point, showing the falling trend of grain carryover (year-end re-

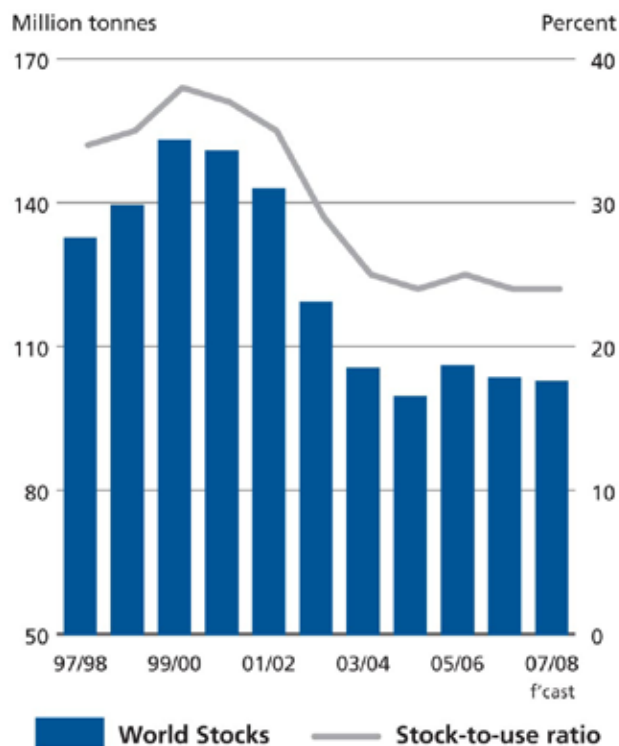
serve) stocks. In recent years—even before the biofuels mania—*output of staple grains has been falling below levels needed for minimal food consumption*. Per-capita output of food in Africa, for example, has fallen in absolute tonnage. Though root crops—manioc and cassava—also are dietary staples for millions in Africa and South Asia, this does not gainsay the point that falling world grain output ratios are a marker for the decline of the world agriculture system.

World production of grains this year (wheat, rice, and corn, and other coarse grains) may reach 2,091 million metric tons, up from a previous high of 2,019 in 2005, but relative to need, the total is hundreds of millions of tons short. For both direct consumption, and indirect consumption for livestock feed, plus for food security reserves, 3 billion metric tons yearly production is required. World capacity is nowhere near that, though it could be.

• **Rice.** Figure 2 shows the extreme case of rice, the staple diet for over 3 billion people. Over the past seven years, the absolute level of rice closing stocks (carryover from one crop year to the next), has fallen from 152 million metric tons, to below 90 million tons. The latest estimate for the 2007-08 rice crop year, from the U.S. Department of Agriculture (*World Agricultural Supply and Demand Estimates*, Aug. 10), is 74 million tons, far below the estimate shown in Figure 2, which was done earlier this year by the UN Food and Agriculture Organization. Accordingly, the graphic also shows that stocks taken as a percent of annual consumption, are also falling. This year, they will drop lower than the 17% level shown, which is below what the UN considers the "danger" point.

International Rice Research Institute (IRRI) Director

FIGURE 2
Global Rice Ending Stocks and Stocks-to-Use Ratio, 1997-2007



Source: UN Food and Agriculture Organization.

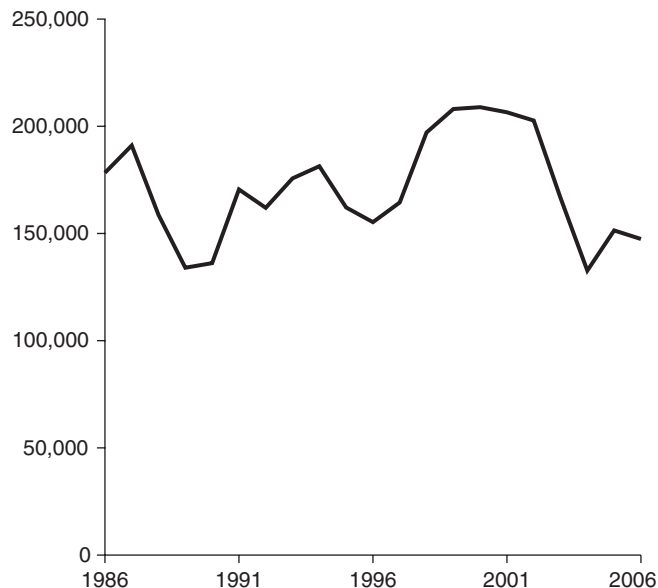
Rober Ziegler, speaking at the international rural poverty conference in Manila on Aug. 9, warned the world of an impending rice shortage. He said that rice and fertilizer stocks are at their lowest levels in 30 years.

In recent years, rice production worldwide has stagnated due to lack of adequate financing of research, and rice productivity is consistently falling behind the growing population's consumption rate, threatening a massive and long-term shortfall in the needed rice availability. This could threaten food security for such rice-consuming nations as China, India, Japan, and the Koreans within a few years.

Ziegler, who, for years had been in the forefront pointing out the danger the rice shortage would cause to the developing world in particular, said: "There are a number of worrisome signs suggesting that new challenges lie ahead. There has been a slowdown in growth in rice production as the yield gains from the adoption of the modern varieties in the irrigated areas have become almost fully exploited and the rice area is declining."

Ziegler added that the rising demand for biofuels, and the pressures that developers-led urbanization and industrialization place on land and water resources, require new crop genetic breakthroughs that can be rapidly disseminated to

FIGURE 3
World's Ending Stocks of Wheat, 1986-2006
(Millions of Metric Tons)



Source: UN Food and Agriculture Organization.

boost output, keep prices low and stable, and boost the production. But instead, funds are being drastically cut for plant research and development.

• **Wheat.** Figure 3 shows how world ending stocks of wheat have stayed in the same range for 20 years—between the 140 and 200 million-metric-ton range, and over the past seven years, are trending downward. The latest estimate from the U.S. Department of Agriculture (USDA) is for world wheat stocks to drop to 114.8 million tons for the 2007-08 crop year. This reflects lower production this year in parts of the world wheat belts, including Canada, the United States, Brazil, Turkey, and the European Union. Speculation in wheat futures is wild, hitting \$7.50 a bushel in August, up from \$4.50 in January.

• **Corn.** Figure 4 shows that the range of ending stocks for corn (and other coarse grains) have, like wheat, stayed for two decades in the range of 145 to 200 million tons, and are now falling significantly. The August USDA estimate is for ending stocks to plunge to 131 million tons.

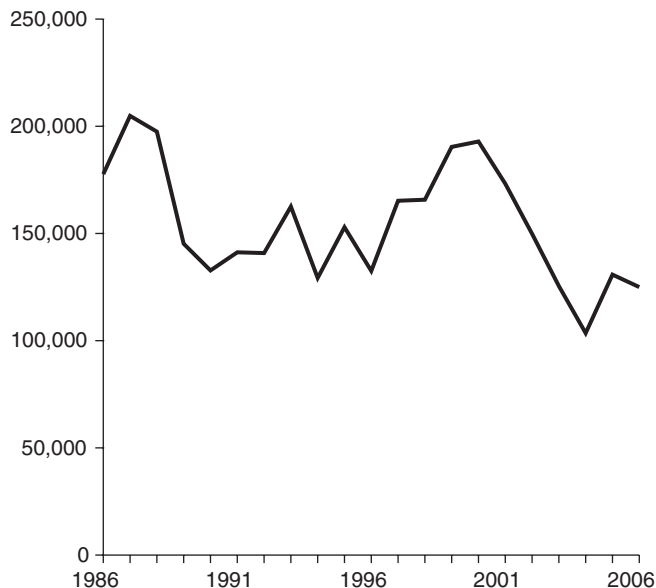
The reserve levels for other basic commodities are in the same short supply, as that of staple grains.

Biofuels Displacing Food Acreage

The United States accounts for about 19.8% of total world grain output, and is converting more and more to corn for fuel. Of total world corn and coarse grain output this year, the

FIGURE 4
World's Ending Stocks of Corn, 1986-2006

(Millions of Metric Tons)



Source: UN Food and Agriculture Organization

U.S.A. is expected to account for 33%, or 350 million metric tons. Fully 20% of the U.S. corn harvest—a record volume—is going into ethanol (**Figure 5**). Given the worldwide grain stock crisis, this is insane. Yet, the biofools rush is on.

U.S. corn acreage is up 19% over 2006, and now at an estimated 92.9 million acres. This is the biggest area since 1944, when yields were lower, and a push was on to supply wartime military, domestic, and Allied needs.

The increased corn acreage comes in part from areas that would otherwise be planted to wheat or soy. U.S. soybean acreage is down 15% from 2006, to 64.1 million acres, the lowest since 1994. Corn has displaced millions of soy acres.

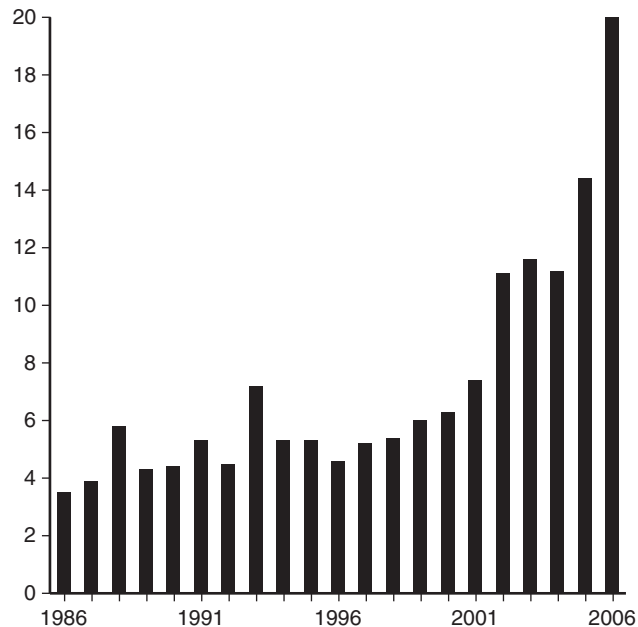
This Spring in Kansas—one of the world's leading wheat producers—there was such a switch to corn planting, that seed-corn supplies ran out, and nitrogen fertilizer prices skyrocketed.

In South America, where a vast area of soy monoculture has been imposed in recent years, centered in Brazil, Paraguay, Uruguay, northern Argentina, and eastern Bolivia, now there is still more pressure for biodiesel and gasohol. Soy and cane account for 21% of the total land cultivated in Brazil; soy accounts for 29% of the agricultural land in Paraguay. Deforestation in the Amazon, and cropping in the Cerrado are expanding; depletion of nutrients in the soil, and erosion are widespread. Yet Brazilian ethanol exports to the United States are considered the wave of the future.

In Southeast Asia, the biodiesel craze is diverting agricul-

FIGURE 5
Share of U.S. Corn Harvest Used for Ethanol Is Soaring, 1986-2006; Now Over 20%

(Percent)



Source: U.S. Department of Agriculture.

tural effort into palm oil, involving deforestation and other sweeping disruptions of regional food production.

Farm Input Hyperflation: Fertilizer

Hyperinflation has hit all the farm input links in the food chain, from fertilizer, to chemicals, fuel, seeds, machinery, labor, transportation, and water itself. So the idea that farmers are benefitting from the “agflation” behind high food costs is simple-minded.

The U.S. Department of Agriculture in August released figures on the yearly increase in average U.S. farm expenditures, showing that from 2005 to 2006 they grew 5.4%, and the year before, by 5.2%; with the likelihood that this year over last will be in the 10-20% range. In the Western farm states (12 states), expenditures rose 26.5% from 2004 to 2006. For example, costs of diesel fuel for farm use rose 20%.

Historically, the farm “parity pricing” policy, enacted under the Franklin Delano Roosevelt Administration, implemented measures to be sure that the prices received by the farmer covered the prices paid by him for inputs, plus a reasonable profit. This was done in order to preserve the family farm system as the safeguard of the national food supply. This principle was abandoned within 20 years after Roosevelt's death, as globalization was pushed under slogans, that the “world market” would provide for your needs. Domestic farming was said to be “unnecessary” for food security.

TABLE 1

Prices U.S. Farmers Receive for Output Are Below Costs of Production

Farm Commodity	Price to Farmer, January 2007	
	Futures Price, Chicago Board of Trade	Parity Price USDA ¹
Wheat, per bushel (all types)	\$4.50	\$10.50
Corn, per bushel	3.23	7.76
Soybeans, per bushel	6.43	17.20
Beef cattle, 100 pounds	85.00	205.00
Hogs, 100 pounds	42.00	118.00
Milk, 100 pounds ²	14.40	38.80

1. Calculation by the U.S. Department of Agriculture, based on 1910-14 base period.

2. Before deductions for hauling.

Source: USDA.

Table 1 shows how the current “agflation” market prices received by the farmer, while they may be called “high,” are in fact way below what would be a parity price, for six common farm commodities. The USDA calculates the parity price by taking all the kinds of inputs the farmer must have, and checking on the going price for that. For example, to produce a bushel of wheat, the cost, including a decent rate of return,

would have been \$10.50. The chart shows prices from January this year. Since then, farm commodity prices have gone even higher—but so has the parity price, because farms are hit by hyperinflation in fuel, and every other input cost.

The case of fertilizer makes the point, especially for corn, which is one of the “greediest” of all row crops for water, and for nitrogen, phosphorous, and potassium. In recent years, almost 18% of corn production costs have been attributable to nitrogen requirements. Wheat is even more striking, with 29% of costs attributable to nitrogen. Soybeans—in the legume family, which fixes nitrogen from the soil—require only 7% of total costs for nitrogen.

The price paid by farmers rose 130% for nitrogen fertilizer (ammonia) over just the six-year period 2000-06. The price per ton was \$227 in 2000, and hit \$521 in 2006. This relates directly to the soaring costs of natural gas, which is the principal feedstock for making synthesized ammonia (NH_3), accounting for 70-90% of its cost of production. Natural gas—methane (CH_4)—is the feedstock for producing ammonia from nitrogen gas (N_2), the major component of our atmosphere. As well, natural gas commonly provides the process heat for the high-temperature, high-pressure process needed for the chemical reaction.

According to the Fertilizer Institute, average ammonia production costs have risen 172% since 1999, due mainly to increasing prices of natural gas.

Before the advent of modern ammonia production techniques via the Haber-Bosch process, developed in the early decades of the 20th Century, the world was dependent upon a laborious process of *mining* nitrogenous fertilizers from animal dung, guano (bird feces) deposits, and “fossil” deposits of salt-peter (originally generated by long-gone nitrogen-fixing microorganisms). The development of the Haber-Bosch process was a necessary component of the Green Revolution, allowing man to increase crop yields by *synthesizing* massive quantities of nitrogen-based fertilizers for crop application. Now it’s the financial system and hyperinflation that threaten crops, not the lack of technology.

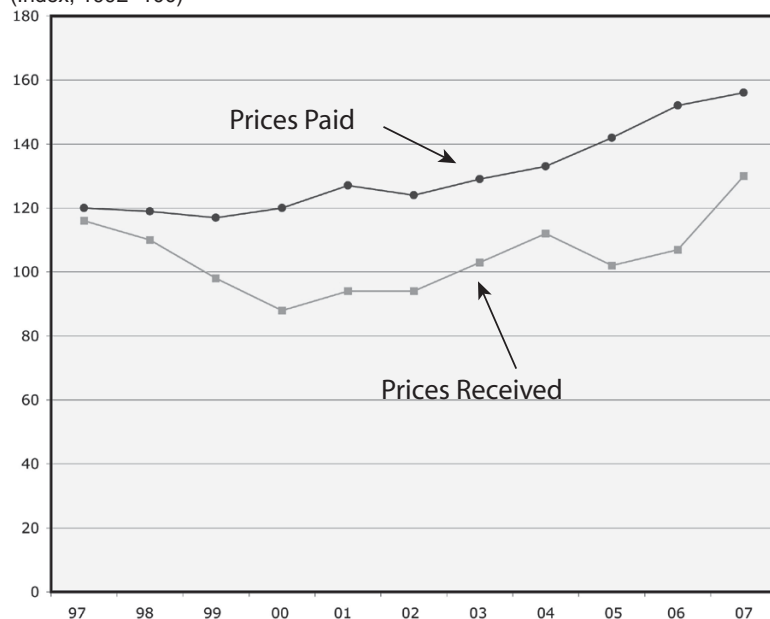
In recent decades, natural gas has become a major fuel source for industrial processes all over the world, including recently constructed ethanol plants. It is now used to produce electricity in many areas of the world. This has led, in the radically deregulated market of the 21st Century, to financial speculation, leading to sharply increasing prices. Fertilizer producers now find themselves competing with the energy sector for supplies.

In the United States, nitrogen fertilizer production capacity has fallen by 35% over 1999-2006. Manufacturers have simply shut their doors, or merged with other companies. Production has fallen 44% over the same time period. Some com-

FIGURE 6

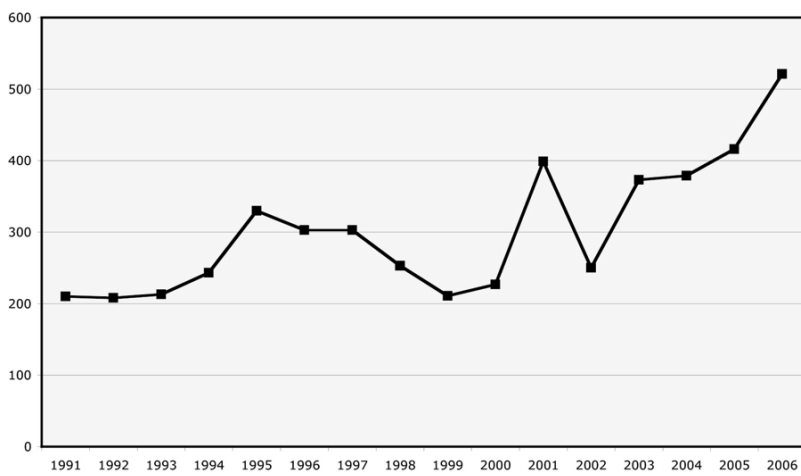
U.S. Crop Farm Index: Prices Received and Prices Paid, All Items

(Index, 1992=100)



Source: USDA.

FIGURE 7

Average U.S. Farm Price per Ton for Ammonia, 1991-2006

Source: USDA.

panies that advance-contracted for natural gas, just turned around and sold it at a profit higher than they would have made from producing fertilizer. A description of this process, and a map of the dwindling number of U.S. ammonia facilities, is included in a USDA report, “Impact of Rising Natural Gas Prices on U.S. Ammonia Supply” (August 2007, WRS-0702).

U.S. farmers are ever more dependent on imports, even as their corn acreage demands are rising. As of 2007, the United States imports 42% of its ammonia requirements, with Trinidad and Tobago providing 57% of the imports, and Canada, Russia, and Ukraine rounding out the bill.

One farmer cooperative in the Dakotas, which ran out of ammonia supplies this Spring, bitterly told the press, “What do we do? Call up Kiev, and say we need to be re-stocked next week?”

FDR ‘Parity Principle’ Emergency Measures

In the course of the worsening conditions for farming over the recent decades of deregulation and globalized food trade, thousands of family farmers quit. In the United States, hundreds of formerly farm counties have lost population on a massive scale. Those family farms still in operation are run by aging people. One-half of U.S. farmers are over the age of 55; only 6% are under 35.

In Europe, the milk quota system is driving out many farmers. Under this plan, the European Commission sets a ceiling on how much milk a farmer’s herd can produce; go over that, and the farmer is fined. In France, which still has 3.8 million dairy cattle, managed by 100,000 farmers, about 5,000 dairymen a year are quitting farming to seek an easier, hard, better-paid livelihood. Instead, near-slave-labor factory milk farms have been set up in select zones around the world—in Chile, in the state of Idaho, and elsewhere, for

“global sourcing” of food.

In Mexico, thousands of farmers were driven out by the corn-import dependence forced on the nation under the 1992 North American Free Trade Agreement (NAFTA).

This means that the food supply chain is more and more precarious, at the same time as food import dependence is growing. There are many markers of how far gone the free-trade system is. For example, over half the U.S. consumption of mushrooms is imported, mostly from China. Only five stateside companies still produce mushrooms, despite the fact that there are no strict requirements of soils and climate for this commodity. The criterion for production is ultra-cheap human labor. This undercuts China’s food supply at the same time.

It’s no good waiting for the day that famine will be officially “announced.” Emergency measures are in order now. In January 2007,

at the time the new Congress convened in Washington, D.C., Lyndon LaRouche issued a document, “The Dance of the Bio-Fools,” to ridicule and warn lawmakers against going along with the biofoolery. *EIR* provided documentation of how “Bio-Foolery Is Causing ‘Food Shocks’” (*EIR*, Jan. 26, 2007). But as the months passed, Congress fell into line with the bio-fuels mania. Now, as the Northern Hemisphere wheat harvest is completed, and world grain shortages are clear; as the ethanol binge sucks in record amounts of corn, no matter how big this Fall’s U.S. crop will be, worldwide “food shocks” are undeniable. It’s time for emergency measures.

There are precedents for the kind of national-interest interventions required of governments. The principles involved were observed in, for example, the food output mobilization by the United States during World War II. Another example is India’s success at becoming food self-sufficient through the 1970s Green Revolution (now all in danger).

Even in the U.S. Congress, apart from the insane biofoolery aspects of the new farm bill, there are a few rearguard proposals that could be expanded upon, to re-establish national production potential. On March 12, Sen. Patrick Leahy (D-Vt.) held hearings to promote a safety net for U.S. dairymen, noting that dairy farms will not be able to survive unless they can receive a fair price for the milk they produce. He referred to ever-increasing fuel costs and high feed costs, driving farmers out of business. Call it a “safety-net,” call it an FDR “parity” program, call it “floor prices,” but Federal intervention to support family-scale farming, and end the food “global sourcing,” is a must.

Such national economic upgrading is in order on all continents. Restoring food security requires restoring functioning national economies, with regional stability in farming, and expanding agriculture output potential.