

Bio-Foolery Is Causing 'Food Shocks'

by Marcia Merry Baker and Christine Craig

It shouldn't take a specialist to realize that the current fad of "biofuels" is a scientific fraud, roughly equivalent to Jonathan Swift's depiction of scientists trying to produce light from excrement. Sure, it's a scientific challenge—but it's absolutely insane. The reality is that humanity's demand for clean and plentiful energy can only be met by an advance into the nuclear realm of fission and fusion power. As we reveal below, the "biofuel" alternative is not only a rip-off, but also it will never solve the energy crisis, and will starve people in the meantime.

The impact of biofuels mania on the food chain, is now hitting as *food shocks* at points all along world supply lines. This results from interaction with pre-existing crises of low grain stocks, marginalized agriculture, monoculture cropping, speculation, and the many other features of globalization.

The most dramatic effects so far relate to corn (maize), the grain for which the United States has typically accounted for over 40% of the world's annual production, and 70% of annual exports. But in 2006, fully 20% of the entire U.S. corn harvest went into ethanol distilleries, creating an automatic squeeze on exports, current and near future, and domestic uses as well (**Figure 1**).

Mexico, forced by the North American Free Trade Agreement (NAFTA) to be a corn-importer, is in a corn-for-tortillas crisis. U.S. livestock producers are being hit by sky-high corn-for-feed prices, and family-scale operations are threatened with shutdown. Unless stopped, this food-for-fuels dynamic—based on a *scientific fraud* of net energy gains from bio-mass—will guarantee outright famine.

Who will starve? "In the long run, it means that we are fueling our cars with food that people might have eaten. There are important trade-offs," was the warning from the Director of Public Resources, Lisa Kuennen-Asfaw, for the Catholic Relief Services, who put out an alarm in mid-January, that the agency is being forced to drastically cut its international food aid for the coming year. One SUV's 25-gallon tank of ethanol consumes enough grain to feed one person for a year, is the calculation of the trade-off, by Lester Brown of the Earth Policy Institute. (See box, p.9.)



California Gov. Arnold Schwarzenegger, major booster for biofuels, talks with General Motors VP for Environment and Energy, Beth Lowery, about the Chevrolet Tahoe, which can use 85% ethanol (known as E85-capable). November 26, 2006.

General Motors/Steve Fecht

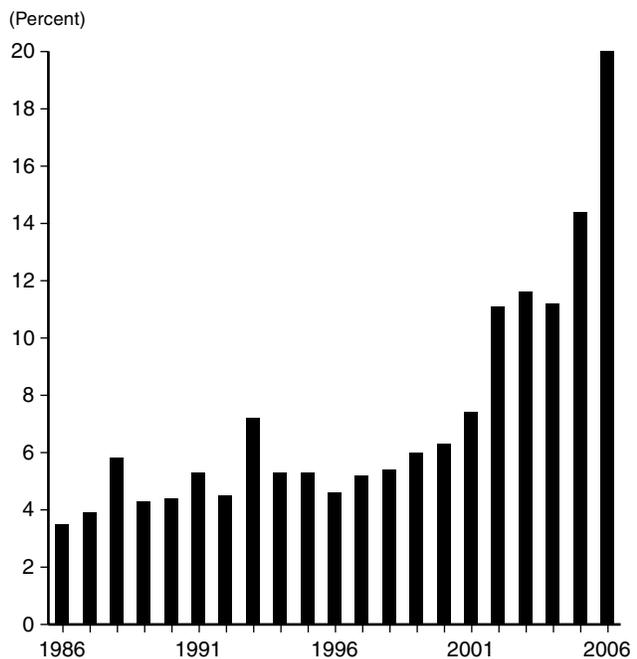
This crisis is not the result of a natural disaster or mistake. A deliberate, top-down drive has been conducted by select financial circles—under both “right and left” guises—to push so-called renewable, alternative fuels, with intent to benefit from the financial bubble, to undermine national food security, and take advantage of the chaos. “Energy security” is the slogan, and the figurehead is R. James Woolsey, former CIA director. The networks include Chevron, British Petroleum, Archer Daniels Midland, Cargill, Morgan Stanley, and a host of other major transnationals. Among the leading figures are George Shultz and Arnold Schwarzenegger, as well as Al Gore.

“Food shock”—*as a policy*—cannot be separated from the panicked manipulations of the Anglo-Dutch financial groupings that are steering a course for global banking and food control, through extreme deregulation and intervention.

Fools Rush In

The worst danger of all is the mad rush by leading government and institutional bodies, to get in on the action. “Biofuels will be the engine of the next farm bill,” was the statement Jan. 10 by Sen. Tom Harkin (D-Iowa), chairman of the Senate Agriculture, Forestry and Nutrition Committee, in concluding his marathon hearing on “Rural America’s Role in Enhancing National Energy Security.” Food shortage dangers from fuels.-food trade-offs barely received a mention during four hours of “expert” testimony. Instead, the glories of cellulosic ethanol were extolled—switchgrass, fescue, pine trees—as the great Green Hope of the future, to supersede using corn.

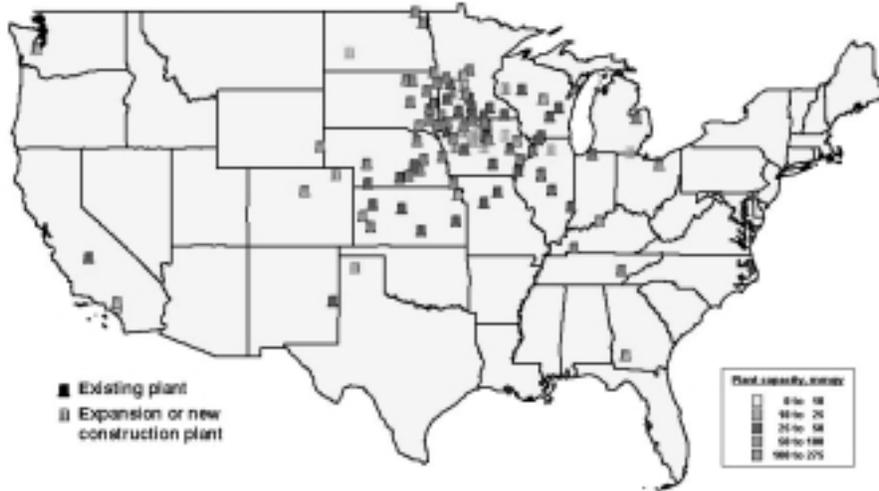
FIGURE 1
Share of U.S. Corn Harvest Used for Ethanol Is Soaring, 1986-2006; Now Over 20%



Source: U.S. Department of Agriculture.

FIGURE 2

U.S. Ethanol Biorefinery Locations

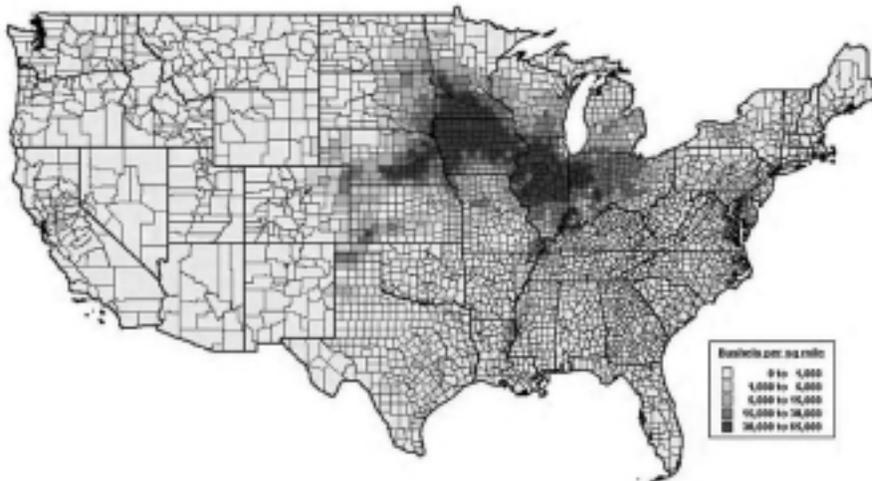


Source: Renewable Fuels Association, June 2006.

FIGURE 3

Geographic Distribution of Annual U.S. Corn Production

(10.6 Billion Bushels; Average Over 2000-04, in Bushels per Square Mile, by County)



Sources: USDA National Agriculture Statistics Service; Kansas State University.

In reality, the next five-year farm bill, due for passage this year, should be crafted as part of the solution, not as more of the problem. But Harkin's home state, the world's leading corn producer, has become the world's epicenter for ethanol and switchgrass madness.

On Feb. 1, the Senate Energy and Natural Resources Committee will join in the frenzy, with a "Biofuels Transportation

Conference," sponsored by the two Committee leaders from New Mexico, Jeff Bingaman (D), chairman, and Pete Domenici (R), ranking minority member.

In 2000, about 6% of U.S. corn production went into ethanol. In 2005, about 14% of the corn crop was so used. This past year, 20% was converted into motor ethanol; and next year it could be 30%. In volume terms in 2006, the amount of corn going into ethanol was the same as the United States typically exports annually. Now, either that corn export flow is eliminated, or use of corn for domestic livestock feed is shorted, or some other trade-off occurs, if corn-for-ethanol becomes king. Something has to give. Corn is milled and processed into a wide range of foods, from table sugar, to beverage sweeteners, oils, vitamin C, and many other by-products, besides animal feeds.

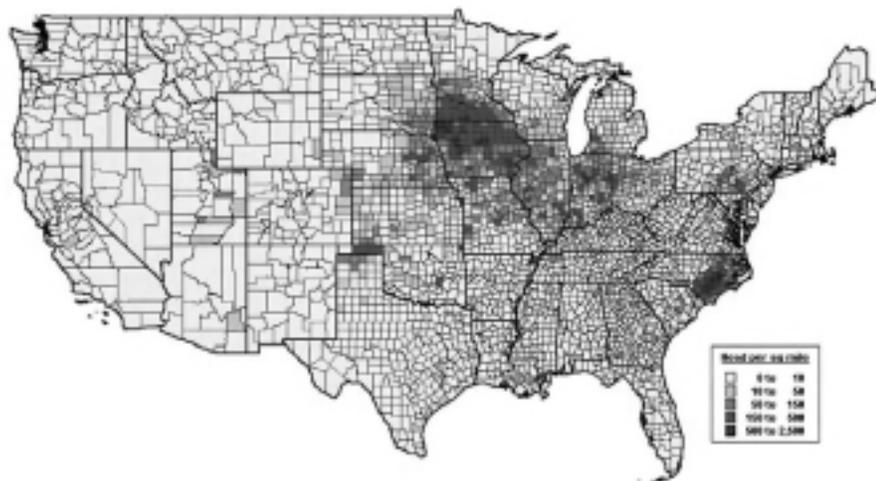
In 2006, U.S. corn went as feedstock into some 110 operating ethanol distilleries, in 20 states; an additional 73 facilities are now being planned, or under construction (see **Figure 2**). Iowa and neighboring Minnesota, Nebraska, and Illinois are home to the leading corn counties of the nation, indicated in terms of density of bushels of corn produced per square mile (see **Figure 3**). But new projects are talked about for many of the outlying states. Five are actively proposed right now for Pennsylvania. At the present rate of ethanol expansion, half the entire U.S. corn crop could be siphoned off into ethanol during 2008!

Iowa State University economist Robert Wisner calculates that if all the present and planned bio-refineries in his state come on line, 2.7 billion bushels of corn will be needed for ethanol in-state, when Iowa harvests "only" 2.2 billion bushels in a good year—the lead corn state in the nation. Then what? Will hog feed be imported into Iowa, or the animals eliminated? **Figure 4** shows the current concentration of hogs in the corn belt.

FIGURE 4

Geographic Distribution of U.S. Hog Inventory

(53.5 Million; Average over 2000-04, in Head per Square Mile, by County)



Sources: USDA National Agriculture Statistics Service; Kansas State University.

Bio-foolery is leading to extreme shifts in land use and agriculture practices, amounting to chaos. However, U.S. Department of Agriculture (USDA) Chief Economist Keith Collins has testified to Congress in “value free” terms about these implications. On Sept. 6, 2006, at a Senate Agriculture Committee hearing on the “Renewable Fuel Standards Program,” Collins said, “If exports and feed use are to be maintained, corn acreage would have to rise to about 90 million acres in 2010 . . . nearly 10 million more than the average planted during 2005 and 2006.” Collins’ estimate to the Senate on Jan. 10, was that U.S. corn acreage in 2007 is expected to be 82 million, up from 78.6 million in 2006.

Collins proposes that farmers could start corn-growing on land now in the Conservation Reserve Program, which originated in the 1970s, supposedly to protect the environment (by not growing row crops). A USDA study looks to 4.3 to 7.2 million acres available that way for corn or soybeans. The trend line is for almost one-third of the U.S. cropland base to go into corn, at the very least.

On Jan. 10, the Senate Agriculture Committee heard testimony on how corn can start displacing other crops, and gain new acreage, because new bio-tech corn seeds can be developed that are more drought- and cold-resistant. So corn planting can move northward and westward out of Iowa, displacing wheat. Farmers will cease rotating crops, and grow “corn-on-corn” every season. Already a “corn rush” is on. This past Fall, Cargill offered a special deal to corn growers: any farmer who would contract in advance to sell Cargill his corn crop, would receive a free grain storage bin, which the farmer could erect on his farm (at his own expense).

What’s the payback of all this frenzy in terms of “domestic” bio-fuel? The 5 billion gallons of ethanol produced in 2006 amount to 3% of U.S. gasoline consumption.

But a vastly bigger vision is seen by the Department of Energy. DOE Assistant Secretary Alexander Karsner, of the Office of Energy Efficiency and Renewable Energy, is plugging the “Billion-Ton Study,” done by the USDA and DOE in 2005, which, Karsner told the Senate on Sept. 6, 2006, “indicates that there are enough agricultural and forestland resources in the U.S. to sustainably produce up to 1.3 billion tons of biomass feedstocks by 2030. This would be enough feedstock to potentially produce at least 60 billion gallons of ethanol.” This would be roughly 30% of yearly motor gasoline used.

Hence, it’s called the “30 by 30” program.

Karsner gives a wild-eyed vision of the new American agricultural landscape, where formers and foresters everywhere are producing “dedicated energy crops. . . . Different regions could potentially support different feedstock crops—for example, switchgrass in the South Central region and willow in the Northeast.”

International Biofuel Bubble

On a lesser scale, the same bio-fool process is under way on other continents with ethanol and biodiesel, and even with “blends” of edible oils and fats of all kinds, going into petroleum products at existing oil refineries. DuPont and Chevron are now at work on bio-butanol. World food trade logistics—port storage, handling, and shipping—are now pressed into service to meet the sudden demands to transport agriculture commodities for new, non-food use.

Asia:

In China, PetroChina, a unit of China National Petroleum Corp., is currently producing ethanol from corn, and plans to produce 200,000 tons of biodiesel a year by 2010. However, in December, Beijing reportedly stopped approving new corn-based ethanol plants, while continuing to pursue plans for offshore deals. In mid-January, Chinese Prime Minister Wen Jiabao was expected to sign bilateral agreements to participate in ethanol plants in the Philippines. The Association of South East Asian Nations (ASEAN) has agreed to adopt common standards on biofuels, in the spirit of furthering alternatives to fossil fuel imports. China is also committed to non-food biofuels. On Jan. 11 PetroChina announced intentions to pro-



EIR/Andrew Spannaus

An ethanol plant under expansion in South Dakota in 2006, one of 14 in the state, despite scarce water supplies for crops and processing.

duce 2 million metric tons of ethanol a year from non-grains, by 2010. A deal was signed in January with the State Forestry Administration, to work on joint wood-energy projects in Yunnan and Sichuan.

In Malaysia, palm oil is being channelled into biodiesel, bound for European markets. For example, in 2006, a contract was announced in which Cargill Palm Products Sdn Bhd will supply crude palm oil, as the primary feedstock for a new biodiesel plant, designed for a 100,000-ton annual capacity. The facility is part of Mission Biofuels Ltd., listed on the Australian stock exchange. Austria-based commodity trader Godiver Handelsgesellschaft GmbH will market the product in Germany. This typifies the rush into bio-oils in Southeast Asia.

Europe:

In Spain, some 60 ethanol and biodiesel plants are either operating or planned, making this country a leading producer. Spanish production of biodiesel—the most common biofuel in Europe, was 125,000 metric tons in 2006, up from 73,000 in 2005, and the current projection is for 600,000 tons in 2008. The bio-feedstock is imported soy or palm oil; other countries are using rapeseed. Spanish ethanol is from wheat or barley.

In France, Cargill has strategically located biodiesel facilities next to its rapeseed crushing operations in Montoir, in western France, and elsewhere.

In Germany, Cargill has a new biodiesel plant in the Hoechst Industrial Park near Frankfurt, intended to process rapeseed oil and other vegetable oil feedstocks. A new trading venue for rapeseed oil options contracts is starting up Jan. 22 by Euronext, to serve all the activity in biofuels in Europe.

In Britain, Cargill has a 25% holding in Greenergy Biofuels, Ltd., otherwise owned by

Greenergy Fuels—the leading bio-energy group. Among the Cargill/Greenergy Biofuels projects, is a Liverpool biodiesel plant, next to Cargill's existing crushing mill on the Mersey River, using imported oilseeds. Cargill's February 2006 press release proclaimed its plans: "With biodiesel plants on the east coast Humber estuary and West Coast Mersey estuary, Greenergy will have a presence in two of the most important oil refining regions in the U.K. . . . [with] unmatched access not only to the raw materials for production but also to the fuel supply chain."

This sweeping trend of private, global biofuels control was furthered by a wave of national laws over the last two years, mandating timetables and standards for what percentage of vehicular fuel had to come from bio-sources by what date.

In the United States, the 2005 "EPAct"—the Energy Policy Act of 2005—decreed what are called the annual Renewable Fuel Standards (RFS), on the volume and make-up of biofuel that must be blended into gasoline. EPA Acting Assistant Administrator William Wehrum told the Senate in September 2006: "The renewable volume [to be blended into gasoline] begins at 4 billion gallons in 2006, and increases to 4.7 billion gallons in 2007, 5.4 billion gallons in 2008, and continues to scale up to 7.5 billion gallons in 2012. EPAct requires that EPA annually establish the percentage requirement, which will apply individually to refiners, blenders, and importers to ensure the total volume of renewable fuels specified for that year in EPAct is achieved." On Sept. 7, 2006,



Ford Motor Company

Rep. Jerry Moran (R-Kans.) in a Ford E85 pick-up truck, in support of bipartisan Federal legislation to further bio-fuels, May 17, 2006.

Warnings: Bio-Foolery Will Prompt Food, Farm Crises

Poverty: “Biofuels Boom Pinches the World’s Poorest; Ethanol Means Money for Farmers, But Hunger for Many Poor People,” reports a Jan. 14, 2007 Gannett News Service article. Its point is that the price of corn and other crops is soaring because of the demand for grain to make ethanol, and that means a government’s budget won’t buy as much food as it used to. The price of corn alone, a key food in Africa, has more than doubled in the past year.

Food Relief Cut: “In the long run, it means that we are fueling our cars with food that people might have eaten. There are important trade-offs,” said Lisa Kuennen-Asfaw, director of public resources for Catholic Relief Services in Baltimore, in the same Gannett News Service article.

Low Grain Stocks: “[T]he soaring demand for corn comes when world grain production has fallen below consumption in six of the last seven years, dropping grain stocks to their lowest level in 34 years. . . . The grain it

takes to fill a 25-gallon tank with ethanol just once will feed one person for a whole year. Converting the entire U.S. grain harvest to ethanol would satisfy only 16% of U.S. auto fuel needs,” reports Lester Brown, in his Jan. 15 article, “Distillery Demand for Grain to Fuel Cars Vastly Understated.” Brown is at the Earth Policy Institute, which specializes in data on the scale of the impact on agriculture,

“The competition for grain between the world’s 800 million motorists who want to maintain their mobility, and its 2 billion poorest people who are simply trying to survive, is emerging as an epic issue. Soaring food prices could lead to urban food riots in scores of lower-income countries that rely on grain imports, such as Indonesia, Egypt, Algeria, Nigeria, and Mexico. . . .”

Biodiesel Trade-offs with Food: “If we took all of the vegetable oil produced in the world, it would only produce 54% of the total U.S. annual demand for diesel fuel,” commented John Baize, an oilseeds consultant at the Prairie Grains Conference, which was reported on Jan. 5, 2007 in the *Farm and Ranch Guide*, of North Dakota. “One of the questions we are soon going to have to deal with is, will a guy in Germany be able to fill up his tank with biodiesel or is a father in India going to be able to buy vegetable oil so his family can eat?”

EPA issued its new rules for 2007, which introduced a new feature: a “marketplace” for buying and selling under- and over-used allotments among the entities involved in meeting the RFS.

To re-emphasize: The 2006 U.S. output of nearly 5 billion gallons of ethanol, exceeding the RFS, amounts to barely 3% of the gasoline used nationally, but that’s not the point of bio-bubblenomics. Size doesn’t matter. What matters, in Wall Street lingo, is that the laws are necessary to guarantee the climate for “market reliability” and “investor security”—meaning that biofuels could become a safe bet for speculators and the cartel players in the game.

Such national mandates have been enacted around the globe. For example, in September 2005, France set quota allocations for selected biofuels operations, to implement a government mandate for having 5.75% of fuel come from biofuels in 2008; 7% by 2010, and 10% in 2015.

Behind ‘Big Ethanol’

Thus, a huge biofuels financial bubble is now aloft, with hedge funds, equity partnerships and banks involved, as well as the long-time ADM, Cargill, Monsanto, and DuPont agro-cartel giants, plus a few local farmer-owned ventures. Morgan Stanley owns the second biggest private ethanol company in the world, Aventine Renewable Energy Holdings, LLC. U.S. state budgets have been throwing scarce revenues into the biofuels mania.

Who was behind the national law mandates and “popular opinion” manipulation to get to this point? The very same financial interests behind what’s known as Big Oil and the Merchants of Grain, to begin with—from Chevron Oil and BP, to ADM and Cargill. First, look at a short list of the active “names,” and then, a brief history.

One recent event makes the point. On Oct. 10-12, 2006, in St. Louis, Missouri, a national biofuels “summit” was jointly hosted by the Departments of Energy and Agriculture, under the title “Advancing Renewable Energy.” This government event was officially financially sponsored by the very crowd raking it in off Federal subsidies, and government biofuels mandates: Chevron, Monsanto, Goldman Sachs, and others. President Bush appeared to make a pitch for “making sure we diversify away from oil.” An additional featured speaker was James Woolsey, who has been tasked by behind-the-scenes financial interests to peddle the line that biofuels are essential for energy security.

Next, look at the upcoming Agriculture Department 2007 Agricultural Outlook Forum (March 1-2, Arlington, Virginia), an annual event held for over 80 years. The plenary panel is titled “Renewable Energy—Inroads to Agriculture.” Speakers will include Patricia Woertz, currently president and CEO of Archer Daniels Midland, who joined the firm in May 2006, after being a Chevron Oil vice president in charge of refining, marketing, and trading oil. Other scheduled speakers are Warren R. Staley, chairman and CEO of Cargill. Mod-



EIRNS/Finn Hakansson

A Wall Street event on June 14, 2006, promoting the initial public offering of an ethanol company, VeraSun Energy Corp., with ethanol plants in Iowa, South Dakota, and Minnesota.

erating the panel will be *Wall Street Journal* reporter Scott Kilman.

On the history of the principal players in the Great Biofuels Game, it should be understood that before there was Halliburton or Enron, there were the agro-cartels seeking to control agriculture commodities of food, livestock feed, and fiber. The short list includes ADM, Cargill, Bunge, Louis Dreyfus, and a few others. Their pedigree traces back to the private financial networks, self-named during the early 20th Century as the “Synarchists,” which among other things, referred to the fascist economic practices they backed in Europe in the 1920s-1940s rise of Hitler and Mussolini.

In particular, ADM and Cargill have all along been making a bundle off the the U.S. biofuels hoax, and now they are key parts of the global biofuels bubble. ADM and Cargill dominate all U.S. corn processing—for oils, feed, sweetener, and by-products. Today, the two companies own over one-third of the current U.S. ethanol capacity. They also dominate U.S. soy processing for potential feedstock to biodiesel. Over 71% of U.S. soybean crushing is owned by ADM, Cargill, and Bunge, in that order. Cargill and ADM also have a lock on seed supplies for soy and corn, through their partnerships with Monsanto, and DuPont/Pioneer Hi-Bred. This came about, as traditional U.S. patent law was changed over the past 30 years, to permit the granting of sweeping patent rights to private interests, for techniques of bio-genetic engineering of food plantlife.

ADM and Cargill each have outstanding records of criminal charges and plea-bargaining, for their illegal food industry practices. ADM, a public company based in Illinois, founded in the mid-20th Century by Dwayne Andreas, a former Cargill

employee, overcharged the Food for Peace program in the 1970s, pled no contest to short-weighting and mis-grading U.S. grain relief grain shipments, and in 1996 agreed to pay multimillion-dollar fines for criminal price-fixing of corn by-products. Top ADM official Michael Andreas, son of the founder, did jail time in 1999. His cousin, G. Allen Andreas, took his place in line to become head of the firm. ADM today operates in 180 countries, commanding the world’s largest capacity for processing corn, soybeans, and wheat.

Cargill, the world’s biggest wholly private company, is headquartered in Minnesota, and functions in 59 countries, with a workforce of 124,000. Its history extends farther back than ADM, but its practices are the same. For example, in 2004, under CEO Warren Staley, Cargill agreed to a \$24 million settlement of charges against it by 18 plaintiff food firms, from a 1995 conspiracy with ADM, to fix corn sweetener prices. The same Staley was appointed by Bush in 2003, to the President’s Export Council, to represent the food industry; and Staley is listed as a featured speaker at the 2007 Annual Outlook Conference of the USDA.

A detailed account of the facts of these companies has been most recently published by *EIR* (June 2, 2006), and is in mass circulation in the LaRouche PAC White Paper “‘Ethanol Madness’—End the Great 2006 Biofuels Swindle” (June 2006), in a dossier called “ADM, Cargill—The Enron and Halliburton of the Ethanol Swindle,” including a timeline from 1945 to 2006 of their record of global corruption.

As of the 1960s, ADM and Cargill were in on the ground floor of U.S. ethanol production, with small operations in the farm states. Then, over the 1970s, numbers of Federal acts

were passed to subsidize ethanol producers, in the name of “energy independence.” In particular, a 51¢ per gallon Federal tax break was given for use of ethanol blends in gas, which remains in effect today.

A line-up of right-wing and left-wing personalities and arguments was activated to justify “alternative” and “renewable” bio-mass energies, all the while that the national nuclear power program was being thwarted by the same operation.

A leader of the pack was Albert Wohlstetter of the RAND Corp., who from the 1950s, to his death, fought to keep civilian nuclear power from spreading. With him on the right were such figures as Paul Wolfowitz and Richard Perle; and on the left, Barry Commoner and Ralph Nader. Today, the fake “right and left” are epitomized by George Shultz and Al Gore.

James Woolsey is just the latest in the continuation of the operation. In 2005, he signed on to a 129-page energy program, from a newly formed, right/left Energy Future Coalition, which calls for energy from all kinds of biomass, including corn stalks and sawdust. This gang helped ram through the Energy Act of 2005.

Behind all this programmatic bio-energy claptrap for the gullible, *the intent of private financial and commodity cartels to impose private food control*, over and above the interests of nations, is to be seen in the blatant assault on the farmer-related institutions of the Wheat Boards in Canada and Australia, by none other than ADM and Cargill and cohorts. There is no camouflaged rhetoric about energy involved, but just an all out grab for private control. Nation-states and food supplies are directly at stake. The dossiers on this are provided in this *Feature*.

Farmers Go for the Green

Why does the farmer—who knows better—go for the bio-fools hoax? Money; plus pessimism and cynicism. At present about 50 out of the 110 operating ethanol plants across the United States are owned in part or whole by farmers, commonly as cooperatives. For over 40 years, the U.S. farmer has been stiffed, by receiving prices for his output that were under his costs of production—for commodities ranging from eggs, to meat, milk and crops. He remained in operation only by off-farm income and various Federal supports, and/or, by converting his farm operation into a “mini” mega-farm—in effect, falling into vertical integration with the cartel system.

But as the rounds of increasing free trade came into effect—1986 GATT, 1992 (signed) NAFTA, and 1995 WTO—it has become harder and harder for family-scale farming to persist in any form at all. (Before the 1960s, the FDR-era policy of parity pricing was in effect, where the farmer received prices that covered his costs of production, as a safeguard for guaranteeing the public a secure, domestic food supply.) Now almost total “global sourcing” for food has been imposed. Huge factory farm operations and neo-plantations are gaining ground in the United States, similar to the neo-colonialization projects in Third World nations. Family-scale



USDA Agricultural Research Service

The Voyager Ethanol Llc plant, in Emmitsburg, Iowa. Note the rail cars, as well as roadways. Ethanol cannot be conveyed by pipeline. This is one of 50 plants in Iowa, either operating or under construction.

operations are driven under.

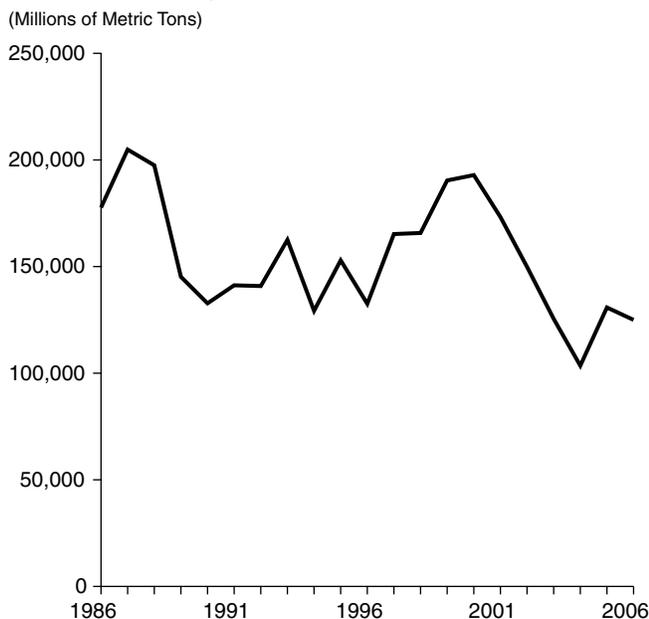
Therefore, when the government-sanctioned ethanol swindle came along, hundreds of farmers jumped in on it as investors, as the only game in town. “If Washington had backed nuclear, and backed prices for farmers, we never would have touched this,” said one farm leader, who organized a cooperative ethanol distillery, presently making multi-millions. “But,” he added, “Washington is hopeless, so we’re just going to make all the money we can, while we can. . . .”

Dozens of these farmer-owned cooperative ethanol projects are now in jeopardy, from the simple math that when corn prices climb high enough, there won’t be a profit in ethanol. Farmers have sunk their family money in deals at a time when corn was in the \$2 range; it is now above \$4 and climbing.

On Jan. 12 and Jan. 16, two consecutive business days on the Chicago Board of Trade, the corn futures price jumped up 20¢—its daily trading limit—following the Jan. 12 release of the Agriculture Department’s “Supply and Demand” monthly grain report, showing lower than expected corn inventories. While such trading mania somewhat reflects “supply and demand,” it also stems from wild speculation, and even rigging—an infamous practice on the commodities exchange. The same financial interests that contrived the biofuels stampede to begin with, can pull the plug on farmer-distilleries, by having corn prices skyrocket. And/or, they can have the price of oil and gasoline plummet, and sock farmers on the other side of the profit equation.

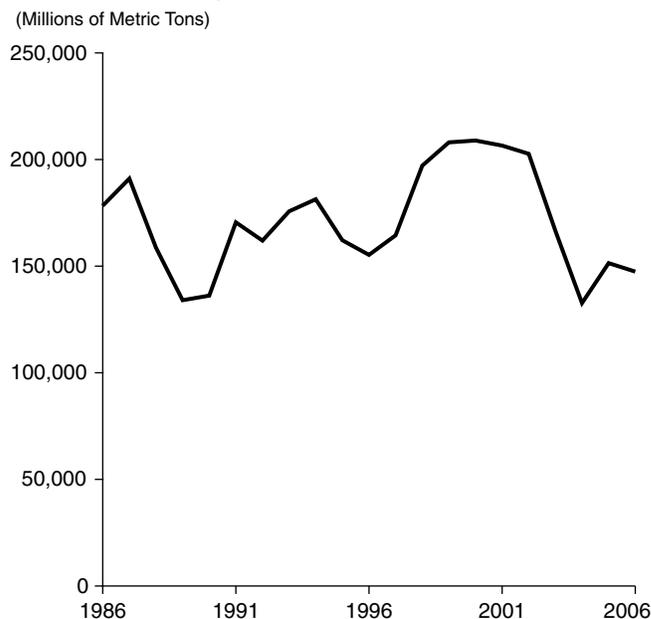
Farm state officials, worried that their farmer ethanol operations are in already trouble, are now appealing for “countercyclical Federal corn supports” to farmer-ethanol producers, for when corn prices rise, ethanol prices fall. The

FIGURE 5
World's Ending Stocks of Corn, 1986-2006



Source: UN Food and Agriculture Organization

FIGURE 6
World's Ending Stocks of Wheat, 1986-2006



Source: UN Food and Agriculture Organization.

November 2006 *Successful Farming* magazine, in its “Bio-power” feature issue, runs a formula from Purdue University economist Wally Tyner, on how to protect farmers’ “bio-refineries from expensive corn, cheap ethanol, or both.”

Farmers well recall the rigged corn price in 1996. That was the year of the infamous radical “Freedom To Farm/Starve Act,” which was premised on the neo-con line that farmers will benefit from a totally “free” market, and therefore over seven years all government subsidies would be phased out. Mysteriously, corn growers saw corn prices shoot up over \$4 a bushel, from under \$1.90, as if to prove all would be rosy. Within months of its signing, corn prices again fell back to under \$2. After five years of chaos, the law itself was replaced in 2002; and now a new five-year law is due.

Two caveats for the non-farmer: The high corn prices going to the farmer right now, welcome to some crop producers, are not at all reflective of a Federal policy intervention to restore decent price levels to all farm commodities (crops, dairy, meat, fiber), and trust-bust the cartel food control, but rather, an aspect of the “chaos and confusion” of the bio-fools stampede.

Secondly, the argument that mass ethanol won’t cause bad food trade-offs because the by-product called “distillers grain”—dry or wet—can be fed to livestock, has a only a grain of truth. Yes, the animals will eat it, but the energy value is sapped because of the distillation of the sugars and starch. For those abroad, distillers’ grains are irrelevant. Cancellation

of their U.S. corn imports or food aid means hunger and starvation.

Low Grain Stocks, High Disease Threats

Figures 5, 6 and 7 show the low levels of annual world-wide ending stocks of corn, wheat, and rice, indicating the danger inherent in diverting any food and farm capacity into non-food purposes. Grain ending stocks—also called reserves or carryover—have been declining in recent years, in absolute tonnage levels, and even more extremely, in per-capita terms, to below minimal food security levels. World grain consumption has exceeded grain production in six out of the last seven years, forcing a draw-down of reserves.

Total world grain stocks (corn and all coarse grains, wheat and other small grains, and rice) in 2004 were 408 million metric tons, and fell 23% to an estimated 318 mmt by 2006. Stocks at this level, relative to the level of annual utilization (for any and all purposes—food, feed, energy) of 2,045.44 mmt in 2006, are at a stocks-to-use ratio of 15%, which is below the minimal food security level set by the United Nations of a 17% ratio. Plus, to improve diets in large parts of the world, especially sub-Saharan Africa, far more grains and other foods are required.

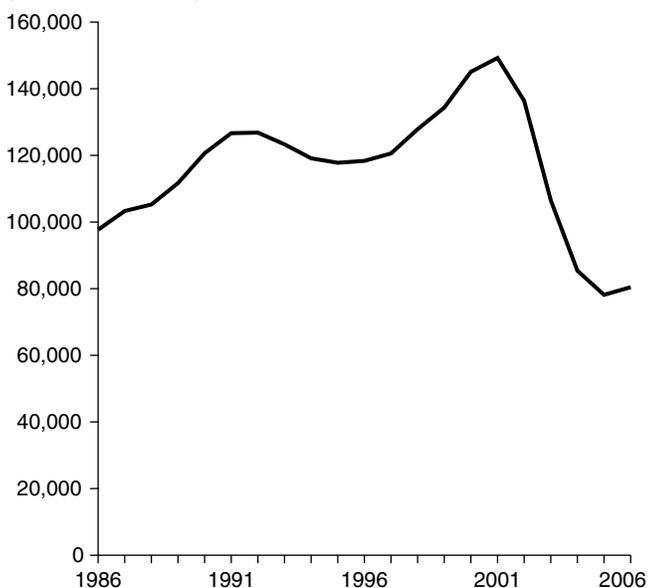
The level of 124,991 mmt of world corn ending stocks in 2006 is about a 12% stocks-to-use ratio. Wheat and rice 2006 ending stocks, shown in Figures 6 and 7, are, respectively, 19 and 18% of 2006 utilization of those grains.

Even without the escalating diversion of corn to ethanol,

FIGURE 7

World's Ending Stocks of Rice, 1986-2006

(Millions of Metric Tons)



Source: UN Food and Agriculture Organization.

the world grains supply picture is “an accident waiting to happen.” The most obvious danger is adverse weather. Australia’s current wheat crop has been cut more than half by drought, which is an international disaster, because Australia is a leading wheat exporter. The water and other infrastructure that would mitigate weather problems has not been built over the past 30 years.

Even more ominous, is the threat of disease. Over the decades of increasing globalization, less and less funding and resources have gone into worldwide cooperative efforts to monitor for plant and animal diseases, and develop contingencies. For crops in particular, the kind of precautionary botanical work which grew up from the efforts of FDR’s Vice President Henry Wallace’s backing of what became the “Green Revolution” research centers (CGIAR, Consultative Group on International Agricultural Research), was downsized at the same time as the private agro-cartel companies came to dominate more of the food chain—from seeds, to food on the table.

Now a very dangerous wheat disease has broken out. The highly virulent strain of wheat stem rust (*Puccinia graminis*) called Ug99 (see photo), emerged in Ugandan wheat fields in 1999, and has since spread to several other east African countries, notably Kenya and Ethiopia, where it has inflicted major damage on local crops.

Then, on Jan. 16 this year, the International Maize and Wheat Improvement Center (CIMMYT) in Mexico, announced what the wheat world has been dreading. Ug99 has been detected in wheat fields in Yemen. It has jumped the Red Sea to the Arabian Peninsula. Some 25% of world wheat production capacity lies in the potential spread path of the disease. On the wings of a strong wind, the spores of the fungus can pass from the Arabian Peninsula to the heavy wheat-producing countries of the Indian subcontinent, and beyond.

The chairman of Pakistan’s Agriculture Research Council, M.E. Tusneem, warned, “If we don’t control this stem rust threat, it will have a major impact on food security, especially since global wheat stocks are at an historic low.”

Norman Borlaug, the Nobel Prize-winning creator of the Green Revolution, concurred: “If we fail to contain Ug99, it could bring calamity to tens of millions of farmers and hundreds of millions of consumers.”

Almost all of the rust-resistant wheat varieties bred in the last 40 years have proven highly susceptible (in test plots) to the disease, leaving the world wheat producers at the mercy of one of the age-old agents of famine. Instead of breeding up contingency varieties of potentially new resistant wheats, funding was cut for this activity. Now there is a mad scramble under way. In September 2005, agronomists formed the Global Rust Initiative to do everything possible, including sifting through old genome libraries, but pickings are slim.

Borlaug, 91 years old, said at the September 2005 meeting, “Nobody’s seen an epidemic for 50 years, nobody in this room except myself. . . . Maybe we got too complacent.” Or went crazy.

There is no longer any excuse for being a bio-fool.



Wheat stem rust, Puccinia graminis, a highly virulent strain, present on the Arabian Peninsula, after it emerged in East Africa in 1999. For over 50 years, the varieties of wheat in use worldwide had been bred to be rust-free, but the new outbreak threatens to spread around the globe. In the mid-1950s, a related wheat rust destroyed 40% of the U.S. crop.

Ethanol, Free Trade in Mexico Augur Inflation, Starvation, Mass Migration

by Dennis Small

Have you ever eaten a Mexican *tortilla*?

Odds are you have. . . or what passes for a tortilla in the fast-food demiworld of *tacos* and *burritos*.

But Mexicans—all 107 million of them—eat the real thing every day. In fact, according to Mexican press accounts, Mexicans are estimated to eat a staggering 630 million tortillas *a day!* The tortilla—a kind of thin, unleavened flat bread, made from finely ground maize, or corn—is *the* staple of the Mexican diet, especially for the 50 million Mexicans who are officially living in poverty. Tortillas are the source of 47% of the calories consumed by Mexicans, and along with beans, are pretty much the only thing that most poor Mexicans really eat.

Even so, under the auspices of NAFTA—the flagship free trade accord negotiated by George H.W. Bush and Mexican President Carlos Salinas de Gortari, and put into effect by the two countries and Canada in 1994—Mexican agriculture has been devastated, as have overall consumption levels. For example, average annual tortilla consumption dropped from 140 kilos per capita in 1996, to 104 kg in 2006, a 25% plunge.

With that summary picture in mind, what do you think

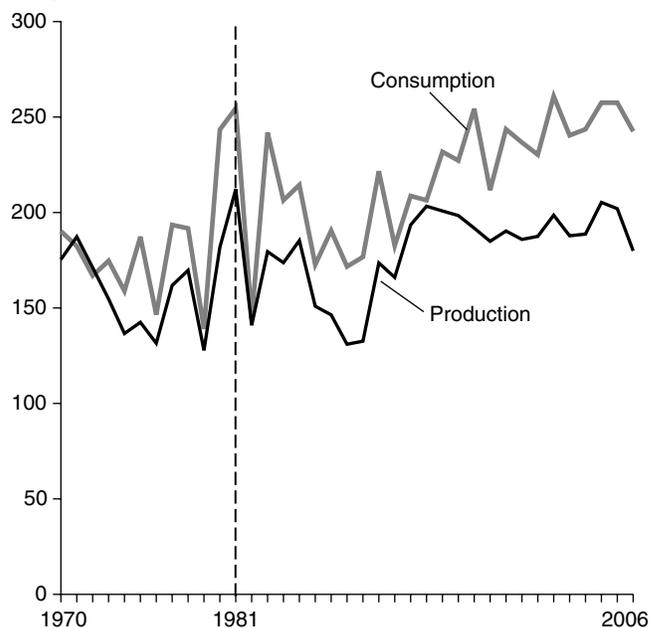


Corn tortillas are the staple of the Mexican diet, especially for the poor, but prices are soaring, in part as a result of the global ethanol craze. And the Calderón government wants to make production of more ethanol a national priority—taking food out of people's mouths.

would happen if the price of tortillas in Mexico rose by 50%? Well, that's what just happened, in a period of less than two weeks at the beginning of 2007. A kilo of tortillas which cost 6.5 pesos (about 60 cents) at the end of 2006, leapt to 8 pesos a kilo on Jan. 6, and to 10 pesos on Jan. 9. In some parts of the country, prices have been reported as high as 20-30 pesos per kilo. It is widely expected that the average national price will go up to 13-15 pesos per kilo by March. *That will mean a doubling in the price of Mexico's most basic food staple, in three months time.*

The response of the government of Felipe Calderón, who took office on Dec. 1, 2006, has been both psychotic and criminal. The former, because it is so totally dissociated from the elementary physical economic reality facing Mexico; the

FIGURE 1
Mexico's Corn Production and Consumption
(Kilograms per Capita)

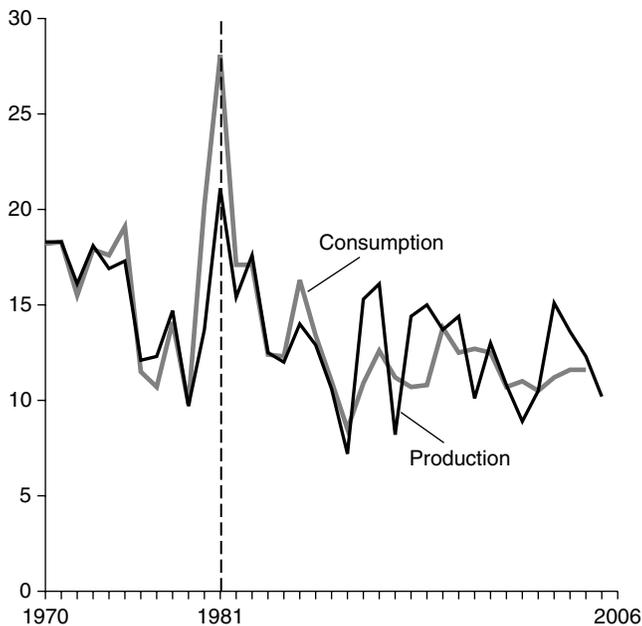


Source: FAO

FIGURE 2

Mexico's Bean Production and Consumption

(Kilograms per Capita)

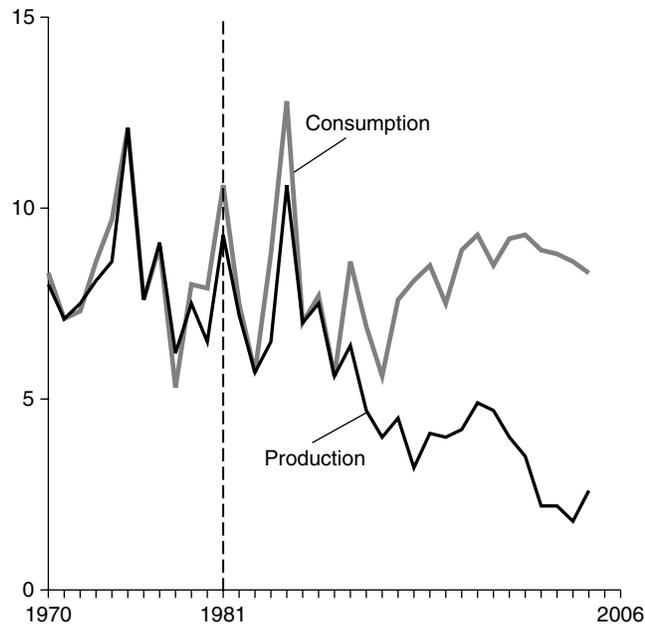


Source: FAO

FIGURE 3

Mexico's Rice Production and Consumption

(Kilograms per Capita)



Source: FAO

latter, because of the foreseeable genocidal consequences for the vast majority of Mexicans, millions of whom will face dramatic hunger and/or attempt to flee across the border to the United States as economic refugees, just to keep themselves and their families alive.

The Calderón government's response in the tortilla affair has been two-fold:

1. They quickly blamed the skyrocketing price of tortillas, and corn on which it is based, on the world ethanol boom and the consequent leap in demand for corn (see articles in this *Feature*). But rather than protect Mexico from this madness, the Calderón government jumped boldly into the abyss. Agriculture Secretary Alberto Cárdenas argued that "the Mexican countryside urgently needs competitively priced corn and sugar cane in order to produce ethanol," according to the Mexican daily *Excelsior*. "Mexico needs to cultivate at least one million hectares of that grain [corn] in order to satisfy the demand that will be generated by bio-fuel plants," officials calculate. Juan Camilo Mouriño, head of the Office of the Presidency, elaborated that ethanol would be a top priority in the administration's national development plan, as a way of dealing with "the lack of employment in the agricultural sector."

The Calderón government's decision to jump into bed with the bio-fools was *not*, however, the result of the latest price run-up. Back in October of 2006, before he was even

sworn in as President, Calderón traveled to Brazil and Canada to announce that Mexico would be moving into bio-fuels, big time.

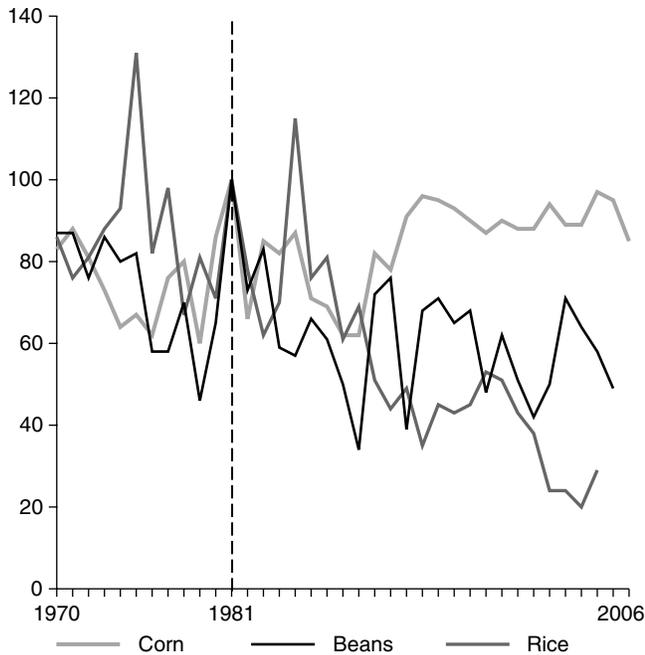
The utter insanity of Mexico—one of the world's great oil producers—switching to corn to produce ethanol, when its own population is so hungry, and depends so totally on corn tortillas to provide minimal nutrition, has not been lost on Mexicans. Víctor Suárez Carrera, director of the National Association of Marketing Companies (ANRC), denounced "neo-liberal economic policies" for decimating agriculture. "There isn't enough supply to meet demand, but authorities should focus their policies on production for *human consumption*, rather than for biofuels."

2. The Calderón government's second policy decision was to refuse to apply price controls in the face of the out-of-control speculative spiral, arguing that this would "discourage production." "Market forces"—i.e. criminal speculators—will be allowed to continue to rule. Rather than price controls, or steps to increase output, Economics Minister Eduardo Sojo announced the immediate lifting of restrictions on corn imports, purportedly to allow more foreign corn (principally from the United States) to enter the country and lower the price that way. The only real-world effect this decision to open the flood gates will have, is to bankrupt the 2.2 million Mexicans still engaged in corn production. Half of Mexico's cultivated land is dedicated to corn production, so the eco-

FIGURE 4

Mexico's Corn, Bean, and Rice Production

(Index 1981 = 100)



Source: FAO

conomic and social consequences of such a free-trade tidal wave are unimaginable.

Free trade under NAFTA has already gone a long way to wiping out Mexico's agriculture. In the decade since its adoption in 1994, NAFTA has helped wipe out 2 million jobs in the Mexican countryside, contributing significantly to mass emigration: There are now about 12 million Mexicans residing in the United States. As PRD congressman José Antonio Almazán González stated in early January:

"The crisis we are facing, regarding tortillas, is the crisis of the Mexican countryside, because before neo-liberalism, Mexico was self-sufficient in food. What does that mean? That the beans, the rice, the tortillas—the things we eat—we produced them. And with the Free Trade Agreement, that all ended. And that is the deeper explanation we have for this matter of the criminal increase of the price of tortillas, which the government wants to ignore."

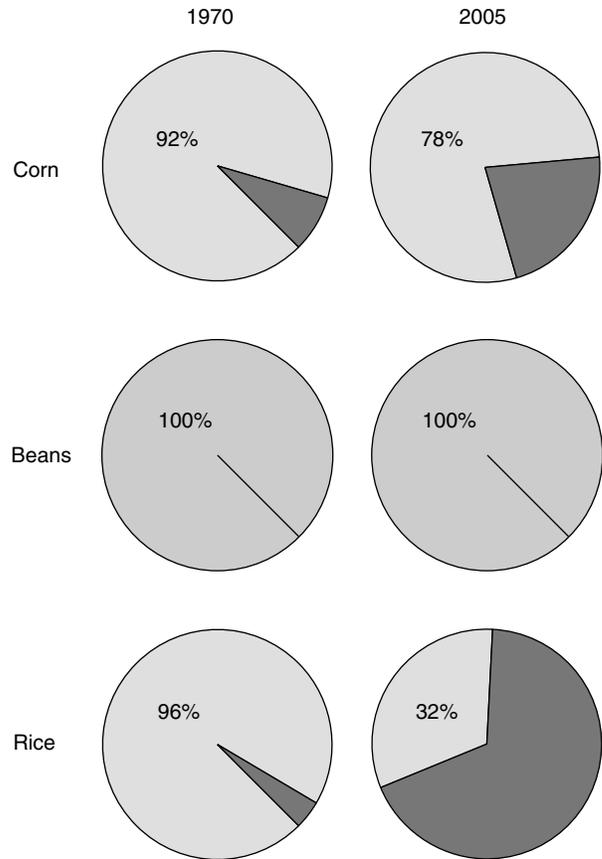
Enter Venice

Congressman Almazán's remarks point to a deeper issue.

Under the terms of NAFTA, rice, soybeans, and wheat each became totally free of Mexican tariff restrictions in 2003, following a nine-year transition to trade liberalization. Over those nine years, Mexican production of those crops was wrecked, with rice being particularly devastated—as we will

FIGURE 5

Mexico's Production of Corn, Beans, and Rice as a Percentage of Consumption



Source: FAO.

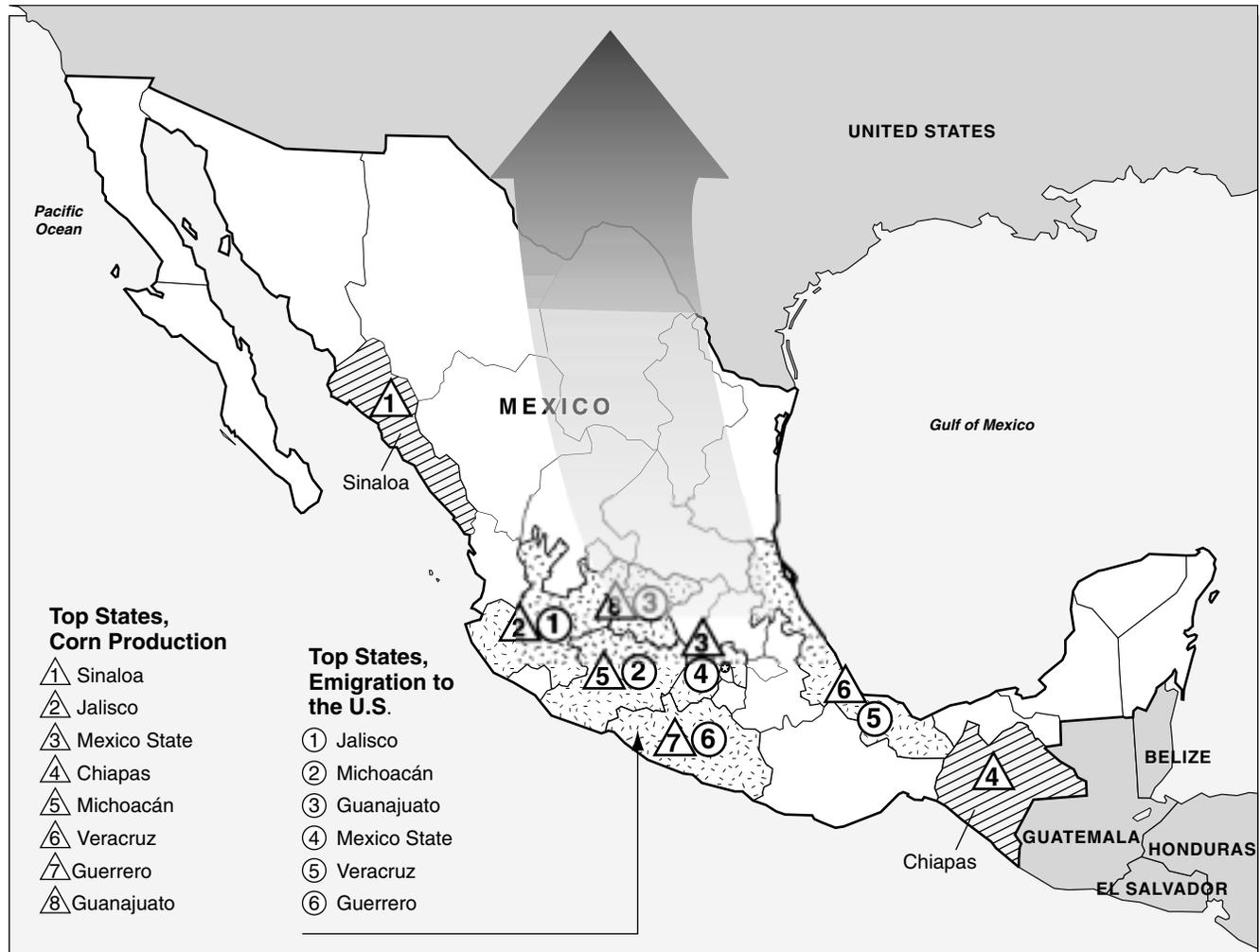
document below.

Corn and beans, however, the staples of the Mexican diet, were excluded from that deadline in the 1994 NAFTA accord, because, in the words of a May 2004 U.S. Department of Agriculture study, "It was widely believed that a sudden opening of the Mexican corn market to U.S. exports would be extremely disruptive, displacing many small-scale corn producers in Mexico and forcing them to migrate to other job opportunities in either Mexico or the United States." The transition to free trade in corn and beans was given 14 years rather than 9—but D-day, Jan. 1, 2008, is rapidly approaching.

There is enormous political opposition in Mexico to accepting this looming deadline, which is widely viewed as the death sentence for Mexican agriculture. But with tortilla prices now skyrocketing out of reach of most Mexicans, there are powerful international forces which are trying to orches-

FIGURE 6

Mexico: Corn Production and Emigration to the United States, 1995-2000



Source: INEGI (Mexico).

trate a clamor in the country to bring in cheaper imports *now* from somewhere, anywhere, to bring down prices.

Who are the big players in the tortilla market in Mexico? A staggering 85% of the corn flour industry in Mexico is controlled by a single company, Maseca. Maseca's owner is Roberto González Barrera, who also controls Mexico's fourth largest bank, Banorte. He is perhaps best known inside the country as the businessman who helped the hated former Mexican President Carlos Salinas de Gortari flee the country in González Barrera's private jet in March 1995. But González Barrera has a far more sinister—and important—*foreign* connection that has been little noted, outside of these pages (see *EIR* of July 2, 2004).

González Barrera is on the General Council of Assicurazioni Generali, the powerful old-money Venetian insurance gi-

ant which, among other things, financed Mussolini's rise to power in Italy. Assicurazione's General Council reads like a *Who's Who* of Europe's oldest and dirtiest money interests. No mere local banker joins that body, unless he is playing Venice's game, in which *they* call the shots.

González Barrera may have a stranglehold on Mexico's tortillas, but his international fame stems from his mastery of what Citigroup's SmithBarney refers to as "the loan recovery and administration business of non-performing loans"—i.e., buying up heavily discounted bad loans, and then collecting like a mafia loan-shark. As SmithBarney noted with respect in a 2004 report, Banorte has an "average recovery ratio of 40% of face value [on the bad debt]. In this particular business, return on investment on many of these assets has been more than 100%."

What Awaits

To get a better idea of what may come from the present tortilla crisis and related ethanol hoax in Mexico, consider the recent history of Mexican agriculture, as portrayed in the following series of graphs, covering the period 1970 to the present. Note that the International Monetary Fund imposed devastating economic conditionalities on Mexico, beginning in 1982, whose results are evident in these graphs.

Figure 1 shows the evolution of Mexico's per capita corn production and consumption. After reaching a high of 212 kg per capita in 1981, corn production has stagnated, with 2006 production of 180 kg per capita being 15% less than 25 years earlier. The only way that per capita consumption levels have not declined, is by importing growing quantities from abroad. Today, almost a quarter of national consumption is imported.

Figure 2 shows what has happened to beans, where 1981's per capita production of 21.1 kg had been halved by 2005. Here, imports have not been as significant, and so consumption has mirrored the production drop.

Rice is the real horror story, as **Figure 3** shows plainly. In 1981, per-capita production was at 9.3 kg, but it had plummeted to 2.6 kg by 2004—a more than 70% collapse. Foreign imports meanwhile flooded Mexico, so that the per-capita consumption of rice “only” dropped by 22% in that same period. Imports now make up about 70% of national consumption, according to FAO figures—although statistics provided by Mexican rice producers put the figure at 80%.

Under NAFTA, rice imports were totally freed up as of 2002. That is what is slated to happen to corn and beans as of Jan. 1, 2008.

As Heladio Ramírez, the president of the National Peasant Confederation (CNC), put it in 2005: “NAFTA has done more damage to the Mexican countryside than a hurricane, because rice nearly disappeared as a productive sector; and NAFTA now endangers millions of producers of corn, beans, and sugar cane, because the trade agreement establishes that in 2008 Mexico will be invaded by foreign production.”

Figure 4 summarizes the production trend for the three crops, indexed to their 1981 levels: corn dropped by 15%, beans by 51%, and rice by a whopping 71%. **Figure 5** tells the respective stories of the diminishing role of national production in domestic consumption.

One of questions one is forced to ask upon reviewing this summary picture, is: What will happen when the Mexican corn sector receives the “rice treatment”—which is now slated to happen not on Jan. 1, 2008, but *now*, as a result of the ethanol/tortilla crisis?

What will happen as foreign corn imports bankrupt the remaining 2.2 million impoverished Mexican corn producers? What will happen to tortilla consumption, as millions of hectares of corn are turned over to the ethanol lunacy? What will happen as the price of tortillas continues to sky-



LaRouche Youth Movement organizers constructed a nuclear cooling tower as their costume, for organizing in Mexico City last year. Now, their theme is, “Only nuclear energy will save your tortillas!”

rocket thanks to Venetian-run speculators? Consider the fact that back in 1999, the year that the Mexican government formally abandoned price controls on tortillas, a kilogram of tortillas could be purchased with about 1% of the minimum wage, whereas at the end of 2006 that same kilo required 20% of the minimum wage. What will happen as the price of tortillas doubles, and it takes 40% of the minimum wage to purchase a kilo?

Now look at the map in **Figure 6**. About half of all Mexican emigrants to the United States—legal and illegal alike—come from six states in the center of the country. Those same six states are also among the country's top eight corn-producing states, and the six jointly produce 49% of the country's corn. Two other leading corn states, Sinaloa and Chiapas, produce another 14% and 10%, respectively.

Just what do you think is going to happen—to Mexico, and to the United States—if the lunatic ethanol and free trade policies continue to be implemented?

Better to go nuclear and put an end to the era of globalization. As the LaRouche Youth Movement is telling people in the streets of Mexico: “Only nuclear energy will save your tortillas.”

Inside the Cartesian Corridor of Congress

by Joe Smalley,
LaRouche Youth Movement

Echoing what Lyndon LaRouche has described as an intrinsically incompetent approach to economics,¹ a wave of propaganda is now being dumped on the U.S. Congress and the American public, to divert attention from the necessity of actual technological progress. Congressmen are being disorganized as if, while conferring on economic recovery, including the advancement of nuclear power, a swarm of dung flies is interfering, buzzing bullshit in the ears of the would-be patriots.

This nuisance manifested itself at a Jan. 10 Senate Agriculture Committee Hearing, on “Rural America’s Role in Enhancing National Energy Security.” Nine panelists, including the chief economist of the U.S. Department of Agriculture (USDA), a co-chair of 25 × ’25 steering committee, a number of research directors, and representatives from farming, livestock, energy, and environmental associations, offered their input on the 2007 Farm Bill. Each of them prepared statements for the committee supportive of the call to reduce our nation’s dependence on imported oil, and each was optimistic about the future of biomass’s role in achieving that end. Each testimony was bounded by the assumption that *nuclear power is not to be mentioned*. Without reluctance, Chairman Sen. Tom Harkin (D-Ia.) proudly forecast, “Energy is going to be the engine of the Farm Bill.”

Just how much chicken spoil must be scooped before Congress admits that the solution lies not in the poop, but in themselves? We must turn ourselves consciously toward the subject of method, focussing on a proposal very popular among Congress and the people.

Smelly Statistical Sophistry

According to J. Read Smith, the co-chair of its steering committee, the 25 × ’25 Renewable Energy Alliance is a group of dozens of current and former governors, Senators, and Representatives, and almost 400 business, labor, and environmental organizations. It was formed by a group of farmers with the influence of the Energy Future Coalition, which set the goal of having the agriculture, forestry, and ranching industries provide 25% of the nation’s energy by 2025. To back up the forecasted benefits of such an agro-energy policy,

1. Lyndon H. LaRouche, Jr., “What the Congress Needs To Learn: The Lost Art of the Capital Budget,” *EIR*, Jan. 12, 2007.

Smith cited a major analytical study by researchers at the University of Tennessee Institute of Agriculture (UTIA), funded by the Energy Future Coalition and Energy Foundation.² By what method were the conclusions reached, that “25 × ’25 is achievable,” and, “reaching the goal would have extremely favorable impacts on rural America and the nation as a whole”? More than likely, millions of Americans believe in the UTIA’s conclusions, without ever being challenged to uncover the method that has shaped their opinion.

Insert your nose-plugs and glove your hands, because this stuff stinks.

“The goal of this study,” states the report, “was to provide an economic analysis of agriculture’s ability to contribute to the goal of supplying 25 percent of America’s energy needs with renewable energy by the year 2025, while continuing to produce safe, abundant, and affordable food, feed, and fiber. The first objective of the study was to evaluate the ability of production agriculture to contribute to this goal, and the impacts on the economics of the agricultural sector associated with this effort. The second objective was to estimate the overall economic impact of production agriculture and other agro-forest sources on the nation’s economy. These impacts involve not only the conversion of bioenergy feedstocks, but also the impacts of bioenergy feedstocks from food processing industries and forestry residues and mill wastes.”

Only the first objective will be discussed here in detail; the second will be the subject of a future article. Because the second objective is modelled as an extension of the first objective, it depends upon the same axiomatic structure as the first. It is this axiomatic system that quickly needs to be abandoned, if the scent of our nation were to remain attractive to others.

To proceed with the first objective, UTIA researchers used POLYSYS, which is, nominally, “a dynamic agricultural sector model . . . to estimate the quantity and type of energy to be produced from agriculture, as well as the price, income and other economic impacts deriving from producing such a level of energy production.” The 2006 *Annual Energy Outlook* of the Energy Information Administration (EIA) of the Department of Energy, and a RAND Corp. study were used to determine the quantity of energy to be consumed by the United States through the year 2025, expressed both in total energy and in electricity and automotive fuel energy.³ Of the 117.7 quads (quadrillion BTUs) projected by the EIA for total U.S. energy consumption, 29.42 quads made 25%, and thus this figure became the established quantity to be produced by

2. Burton English, Daniel G. de la Torre Ugarte, et al., *25% Renewable Energy for the United States by 2025: Agricultural and Economic Impacts* (The University of Tennessee Institute of Agriculture, Department of Agricultural Economics, November 2006).

3. *Annual Energy Outlook 2006* (Energy Information Administration, U.S. Department of Energy, February 2006).



PRNewsFoto/Alliance of Automobile Manufacturers/Randy Santos

“Green People” rally in Washington for alternative fuel vehicles. The last thing Congress needs, is more chicken shit.

renewable resources. Of this portion, it was projected that 15.45 quads would need to come from new farm and forest production, as already existing biomass and other renewable resources accounted for the remaining 13.97 quads.

Thus, the projected figure 117.7 quads of total U.S. energy consumption by 2025 was assumed to be accurate by the UTIA researchers. *How could one predict the quantity of energy that the nation will consume almost 20 years from now?*

The 2006 *Annual Energy Outlook* is a report of results computed via the National Energy Modeling System (NEMS). According to the EIA, “Overall, NEMS represents the behavior of energy markets and their interactions with the U.S. economy . . . the system reflects market economics, industry structure, and existing energy policies and regulations that influence market behavior.” The *Outlook* does acknowledge a plethora of assumptions and conditionalities, but it does not make explicit the axiom upon which the NEMS has been created.

The following passage from the UTIA report demonstrates the hoax that is being perpetrated:

“A few technical improvements are assumed for the extension through 2025. Conversion coefficients of cellulose to ethanol were increased linearly for stover [stalks and leaves of the corn plant], straw and switchgrass from 2015 to 2025 to final coefficients of 87.9, 83.2 and 90.2 gals per ton respectively. The conversion of corn grain to ethanol is assumed to

increase from 2.7 gals per bushel in 2014 to 3.0 gals per bushel in 2019, and thereafter remain steady. Biodiesel is also assumed to increase from 1.4 gals per bushel in 2014 to 1.5 gals per bushel in 2019 and thereafter remain steady.”

Not only do researchers assume steady progress in the efficiency of converting cellulose to ethanol, but they also assume that cellulose-to-ethanol conversion will be feasible in the first place. They assume that conversion methods that do not exist today will exist in the future, will steadily improve in the future, and will help achieve the 25 × ’25 goal that prescribed just how much energy would have to come from renewable resources.

To state the fallacy of composition more clearly: The researchers first postulated the quantity of energy that must be produced by renewable resources to meet 25% of the defined energy consumption quantity for 2025. Then, to generate this postulated portion of the defined U.S. energy consumption by 2025, the means of converting cellulose to ethanol were assumed to exist. The conversion efficiency necessary to convert the assumed supply of feedstock was assumed to increase to quantities in accord with the requirements to meet the postulated portion of energy.

What would be the effect of continuing to operate within this set of assumptions? Perhaps another study will define the quantity of production jobs to be discarded, so that manufacturers can “remain competitive,” then assume that productivity will increase over time as a smaller supply of jobs will spur competition among laborers, and finally assume that the postulated productivity levels reached will make the manufacturer more competitive abroad. Continue to act on this set of assumptions and watch the nation, including its “competitive manufactures,” collapse into a dark age.

One should ask oneself, “What kind of joke is this? Who would commission such a study? Who would permit such fraudulence to justify a policy proposal?”

Defining a Nation

Were human beings mere creatures in a jungle, avoiding pain and satiating pleasure, it were not likely that more than several million of us would be roaming the planet today. It would also be impossible to unleash the benefits of nuclear power throughout the world. How we act upon the currently reigning popular delusions will determine the conditions of the world for billions of human beings in the future. The Congress has the power to intervene, on behalf of the people, to craft policy in the pursuit of happiness. The 25 × ’25 initiative, and sundry other “bio-fool” proposals, ought to be considered dead on arrival: Bullshit does not belong in the halls of Congress.

Smell of Gigantic Hoax in Government Ethanol Promotion

by Laurence Hecht

The warning signs of a gigantic hoax in the promotion of ethanol as a substitute for gasoline came into sharp focus in mid-January, as *EIR* stepped up investigations of the claims by government agencies to the efficiency of biofuels. The evidence is not yet conclusive, but sufficiently suggestive to warrant prompt Congressional investigation into what might be one of the greatest and most costly hoaxes perpetrated by the Cheney-Bush Administration since the selling of the Iraq War.

The leading beneficiaries of this false promotion are the major grain cartels, the large hedge fund operators, who have moved in on the boondoggle, and at a higher level, those policy interests who would take us back to an agricultural society on the imperial model. The big losers will be the American public, including those farmers and farm-state businessmen who have been suckered into one of the greatest investment swindles since John Law's Mississippi land bubble.

The entry point for uncovering this hoax were the claims by officers of the U.S. Departments of Agriculture (USDA) and Energy (DOE) that production of ethanol from corn shows a positive net energy balance of 30,528 Btu per gallon,¹ or 67% more than the energy required to grow, transport, and distill it, and that cellulosic ethanol (derived from switchgrass or other inputs) could provide even higher net energy returns. But deeper investigation showed that while some independent analyses, most of them of recent vintage, show a slight positive energy balance, the figures promoted by government agencies—the USDA Office of the Chief Economist, in particular—appear wildly inflated. A huge energy giveback credit is allocated for the byproducts of ethanol production, the data appear selectively chosen to make the case, and the claims have been inflating over the years.

1. Hosein Shapouri, U.S. Department of Agriculture, Office of the Chief Economist; James Duffield, USDA/OCE; Andrew McAloon, USDA/Agricultural Research Service; and Michael Wang, U.S. Department of Energy Center for Transportation Research, Energy Systems Division, Argonne, National Laboratory, "The 2001 Net Energy Balance of Corn-Ethanol," (2004).

If, as the preliminary evidence suggests, the bottom line has been goosed up to make the case, the source of such probable corruption is not far to find. As one Federal official with experience in energy and pollution was quoted in the January 2007 *Scientific American*, referring to the 51-cent-per gallon tax break for ethanol, "Congress didn't do a life-cycle analysis; it did an ADM analysis." ADM is Archer Daniels Midland, the largest of the five grain cartel giants, which has been pushing corn ethanol for more than two decades, and whose influence over the USDA is no secret.

The hoax, however, goes much deeper than the debatable claims for a positive net energy balance for ethanol production. No competent evaluation of the efficacy of biofuels can be carried out apart from a consideration of the overall thermodynamic efficiency of the national economy. On this matter, deliberations by Congress and government agencies have been either non-existent or grossly lacking in competence. An observer from another Solar System, looking down on the past decades' transformations in industrial and land-use patterns of the United States, might well conclude that its inhabitants had been inhaling an excess of the vapors of that substance which the intelligent aliens would have identified in their molecular rotation spectroscopes as C₂H₅OH, or ethanol.

The expansion of the biofuels boondoggle to *cellulosics*, which is expected to be a leading feature of the President's 2007 State of the Union message, is now about to push us one step deeper into the "red ink" of negative net product of physical economic output. This latest bio-foolery has the added feature of driving us backward in time, toward that condition of agricultural and raw materials-based production which the American Revolution was intended to redress. We must warn the reader who would wish to simplify the issue, that the usual accountant's measures of net profitability have nothing to do with a competent analysis of the subject.

The outstanding weakness among the better-intentioned dupes of the biofuels mania has been an over-readiness to accept the narrowly defined premises of a problem, which, by its nature, cannot be solved without going beyond those self-imposed boundaries. For example, the ethanol question addresses a very limited part of the overall efficiency of our



USDA/Keith Weller

In a scene straight out of an H.G. Wells film, a microbiologist and technician add starter microorganisms to pilot-plant-size bioreactors in which ethanol is brewed from sugar mixtures derived from corn fiber. “The vision is of ethanol stills dotting the rural land area, drawing on the labor of hardworking peasants in a production radius of 25-30 miles for corn stover, and up to 60 miles for plants using switchgrass as a feedstock.”

national economy—the production of a fuel for motor vehicle transportation. In a modern, nuclear energy-based economy, the best candidates for a portable motor vehicle fuel are electricity and hydrogen: the one to recharge the batteries of plug-in electric or hybrid electric-powered vehicles; the other to power fuel cells, or to feed the combustion chambers of high-temperature ceramic turbines capable of burning hydrogen at efficiencies twice or greater than that we can achieve with the best gasoline engines. As an interim measure, synthetically produced liquid hydrocarbons, including ethanol and methanol, may be generated by combining the nuclear-generated hydrogen (from electrolysis or catalytic cracking of water) with carbon from coal and other sources, even including a small amount of agricultural waste.

The cheapness and overall efficiency of the nuclear fuel cycle, not the energy input-output balance of the fuel produced, dictates the suitable replacement fuel for the gasoline which, by any calculation, will be in shortening supply over the next century. From a strictly thermodynamic standpoint, the energy cost of any synthetically produced fuel is always greater than the return. That goes for all the electricity that has been generated in the past hundred years, as well as for the nuclear-generated hydrogen which will make up an important part of our future fuel mix. The efficiency of electricity, which was the most important component of the advance of physical economic productivity in the 20th Century, lay in the new *qualities* of productive capability which it brought to farm, factory, and home. That paradox should help the reader to see the necessity of redefining the meaning of thermodynamic

efficiency in physical economic rather than purely mechanical terms.

Food and Scientific Principle

As a first step, let us view this matter from a standpoint often emphasized by physical economist Lyndon LaRouche, making use of the terminology of the great Ukrainian-Russian founder of biogeochemistry, Vladimir Vernadsky (1863-1945). Let us conceive the universe in which we live as consisting of three great domains: the non-living, encompassing all that which the chemist sometimes refers to as the inorganic; the living matter, including all life and its products (the Biosphere); and finally, that unique domain, relatively new on the scale of geologic time, of the products, both material and spiritual, of the human mind (the Nöosphere). Further, let us try to keep in our mind, a moving process conception of the interaction of these domains over time, from the period of the Earth’s history when life existed as an unexpressed potentiality, to the development and rapid spreading of life over the whole envelope of the Biosphere, taking over the inorganic domain for its own purposes, to the emergence of the third and now dominating domain, cognitive humanity.

The negative energy balance findings for production of ethanol from corn are consistent with fundamental principles of science and physical economy, proceeding from this standpoint. For such principled reasons, even if ethanol, or some other biofuel, could be shown to exhibit a positive net energy balance from a strictly thermodynamic standpoint, it would

be foolhardy to convert large portions of our agricultural economy to biofuel production, as the interested beneficiaries of this great hoax propose. Much of the confusion on this matter stems from a failure to understand the fundamental distinction between *energy* and *power* (not *power* as defined in mechanics, as work divided by time, but in the Classical sense of transformative ability: *dynamis*).

The concept of energy, as used in thermodynamics, is based on the mechanical theory of heat, the presumption that a given quantity of heat may be equated to a definite quantity of motion. Its usefulness lies in the fact that the work of all types of machines—mechanical, electrical, chemical, and heat engines—may be compared. Thermodynamics fails, however, when it comes to evaluating systems of human or natural economy. Power, in the Classical sense of the term, such as that invoked by Plato in the *Theaetetus* dialogue, means something quite different. For example, which is more powerful: an atomic bomb, or the human mind? Which, or who, created which?

In evaluating so-called biofuels, it is thus necessary to distinguish between energy and *power*. The useful *power* contained in a kernel of corn is not to be measured by the number of kilocalories or Btu's of heat that can be generated by burning either the whole kernel, or its less-energetic ethanol derivative. Thus, we come to a second paradox: In terms of raw heat energy, there is several million times more available energy in a gram of slightly enriched uranium than in a kernel of corn. Yet the corn kernel contains more *power*, because it represents a far higher degree of organization of matter. Its power to support human or animal metabolism is not only greater, but immeasurably so. (Just imagine eating one or the other, and the point may be grasped immediately.)

Such a view helps us to fix our feet more firmly on the ground, that we may more readily grasp some basic principles which, until a few decades ago, were the common intellectual property of most of our fellow citizens: 1) The purpose of agricultural land, and its accompanying infrastructure, is to produce food. The living matter associated with the chlorophyll in the green part of plants permits the conversion of the extremely low-intensity energy flux of the Sun into this substance we cannot live without. The maintenance and improvement of this land area, its proper supply with water, power, transportation, and all the products of human invention, permit us to use this finite surface area to feed a human population of approximately 6.5 billion. 2) Modern industrial processes require the application of power at high levels of energy flux density, in such forms as electricity, light, and process heat. For the supply of this input, we turn to nonliving processes, particularly to the atomic and subatomic regions. Here, by harnessing the work of millions of particles of extremely low mass and high velocity (or, alternatively of tiny wave packets of extremely high frequency), we are able to produce work in the form of heat,

or directly as electricity, at densities millions of times greater than the received Solar energy.

The Cellulosic Fantasy

Domestic ethanol production jumped 50% in 2006 to approximately 5 billion gallons. Nonetheless, this made up less than 4% of the 140 billion gallons of gasoline consumed. Almost all of that ethanol came from corn. Already, at that level of production, the pressure is being felt on the price and supply of corn, which makes up a major part of poultry and livestock feed. In a world in which nearly 4 billion people are malnourished, the conversion of corn and cereal grain production capability to production of alcohol for burning in cars is thus clearly both immoral and insane. The amount of agricultural land is finite. According to a calculation by University of Connecticut emeritus physics professor Howard Hayden, replacing the entire U.S. motor vehicle fuel consumption with corn ethanol would require 51% of the land area of the United States.

The latest fantasy among the bio-fools, and the just plain fooled, is that cellulosic ethanol—ethanol distilled from non-food crops, such as switchgrass or southern pine, or from waste paper—can fill the gap. Detailed studies of such subjects as the collocation of corn ethanol and cellulosic feedstock production have been produced by the USDA and DOE.² In one study, the optimum collection distance for production of ethanol from corn stover and from switchgrass are compared.³ The vision is of ethanol stills dotting the rural land area, drawing on the labor of hardworking peasants in a production radius of 25-30 miles for corn stover, and up to 60 miles for plants using switchgrass as a feedstock. It is the primitive agricultural dream world of John Ruskin and his pre-Raphaelites. To see more clearly why it can only bring us closer to economic destruction, let us step back and take a quick overview of the production of ethanol from a biochemical standpoint.

Ethanol, or ethyl alcohol, the same substance found in beer, wine, and spirits, is produced by the fermentation of simple sugars under the action of tiny yeast organisms. In the production of wine or apple cider, the fruit sugars are acted

2. Robert Wallace, Kelly Ibsen (National Renewable Energy Laboratory, National Bioenergy Center); Andrew McAloon, Winnie Yee (U.S. Department of Agriculture, Eastern Regional Research Center Agricultural Research Service), "Feasibility Study for Co-Locating and Integrating Ethanol Production Plants from Corn Starch and Lignocellulosic Feedstocks," A Joint Study Sponsored by: U.S. Department of Agriculture and U.S. Department of Energy, NREL/TP-510-37092, USDA-ARS 1935-41000-055-00D (revised January 2005).

3. Robert Wooley, Mark Ruth, John Sheehan, Kelly Ibsen (National Renewable Energy Laboratory); Henry Majdeski, Adrian Galvez (Delta-T Corporation), "Lignocellulosic Biomass to Ethanol Process Design and Economics Utilizing Co-Current Dilute Acid Prehydrolysis and Enzymatic Hydrolysis Current and Futuristic Scenarios," NREL/TP-580-26157 (July 1999).

on by yeasts found in the air or introduced by the vintner. To ferment corn or grain requires first breaking down the vegetable starch, known as amylose, which makes up most of the nutritional value of the grains, into the simple sugars of which they are composed. A starch is a type of complex molecule known as a polymer, a straight or partially branched chain of sugar molecules numbering in the hundreds or even thousands. In the human digestive system, the starch contained in cereal grains and other foods is acted on by two slightly different enzymes, generically known as amylase, present in the saliva and in intestinal fluids. By acting on the chemical bonds which join the molecules of the starch together, the enzymes break the polymer down into its simpler component sugars, which can then be metabolized. Amylase, first purified from malt in 1835 by Anselme Payen and Jean Persoz, has long been used in the industrial fermentation of grains. The two types of amylase employed in producing ethanol from corn add about 4 to 5 cents per gallon to the cost.

Cellulose, which makes up most of the fibrous, structural part of plants and trees, is very similar in its components to starch, and shares the same empirical formula, $(C_6H_{10}O_5)_n$. Cellulose is the most abundant organic compound in the biosphere, containing more than half of all the organic carbon. But breaking down the cellulose into its component sugars, which can then be fermented into ethanol, is not such an easy matter. Only a few mammals, the ruminants and the beavers among them, can digest cellulose, and they do so not by their own devices, but by hosting bacteria which can do the digesting. In nature, the job of breaking down the great mass of cellulose fiber so the carbon within it may be reused, is given to certain bacteria, and especially to fungi.

Like starch, cellulose is classified as a polysaccharide, meaning a collection of many simple sugars. However, it is put together quite differently. The structural units are two linked sugars and they link together in chains of hundreds of sugars. Links between the hydrogen atoms of separate chains give the cellulose structure a crystal-like quality. Thousands of polymer strands might be put together in this way. To compound the problem of getting at the sugars, the cellulose is wrapped in a sheath of hemicellulose, another polysaccharide, and lignin. The hemicellulose is a bit easier to break down but more difficult to ferment than the cellulose. All in all, the cellulose is doing the job nature intended it for: to keep plants standing rigidly and resistant to outside attack. It is worth considering that, pound for pound, wood is stronger than steel as a structural member. Its strength comes from the ingeniously designed cellulose/lignin structure. Organic molecules are built around the incredible versatility of tetrahedrally bonding carbon atoms in joining up, in chains, rings, spirals, and the more complex topologies of living structures. What life builds up, man's ingenuity can break down. But at what cost, and for what good purpose?

Corn ethanol gets by with its 51-cents-per-gallon Federal

subsidy. To qualify cellulosic ethanol production for this level of welfare subsidy, still requires solving a lot of problems. Heat and acid pre-treatment are required to remove the lignin from the cellulose. Once freed, the cellulose must then be treated with strong acid and higher temperatures. The dream of the cellulosic ethanol proponents is that new ways of producing cellulase enzymes might be developed. So far, it remains only a dream. Several years ago, the DOE's National Renewable Energy Laboratory subcontracted the two largest enzyme companies to try to bring down the cost of producing cellulase. In the first phase, a cost reduction of about 10- to 12-fold was achieved. But this left the price of the enzyme, optimistically calculated, in the range of 30 to 40 cents per gallon. The goal has been to bring that price down to 10 cents or less; but that has proved much more difficult. According to Matthew Wald, writing in the January 2007 *Scientific American*, "at a seminar at the House of Representatives last September, companies complained that they could not convince a design firm to guarantee to a bank that the finished [cellulosic] plant would work."

Leading candidates for the feedstock of choice in cellulosic ethanol production include switchgrass (the native species of the North American tall grass prairies), Miscanthus, a tall grass of Asian origin which has gone through many trials in Europe, and fast-growing trees, such as the southern pine. Proponents argue that these species will not compete with food crops, as corn ethanol does. However, the land, infrastructure, and labor requirements for growing and harvesting don't go away. On the R-Squared Energy blog, Robert Rapier, who studied cellulosic ethanol production at Texas A&M University, calculates that a mid-sized cellulosic ethanol facility of 50 million gallons-per-year capacity would require 860,585 Douglas firs *per year* to stay in operation. At the best possible yields of switchgrass, he calculates that the replacement of 50% of our current annual gasoline consumption, would require 13% of the land area of the United States. This is assuming that a cellulosic ethanol production plant could ever be made remotely efficient. His figure is in the same general ballpark as the one cited earlier in the article for corn ethanol. But such quantities of arable and accessible land are simply not available.

The Net Energy Debate

For more than 25 years, competent scientific studies had shown that, when all the inputs were taken into account, it takes considerably more energy to produce a gallon of ethanol than can be derived from it. In 1980 and 1981, two panel studies by the U.S. DOE reported a negative energy return from corn ethanol production.⁴ These reports were reviewed

4. Gasohol: Report of the Energy Research Advisory Board, U.S. Department of Energy, Washington, D.C., 1980; Biomass Energy: Report of the Energy Research Advisory Board Panel on Biomass, November 1981.

How the USDA Gooses Its Data

Production Process	Without Give-Back	With Give-Back
	(Btu per Gallon)	
Corn production	18,713	12,350
Corn transport	2,120	1,399
Ethanol conversion	49,733	30,586
Ethanol distribution	1,487	1,467
Total energy used	72,052	45,802
Net energy value	4,278	30,528
Energy ratio	1.06	1.67

Note: Figures are weighted average of dry and wet milling process. Energy value of ethanol is taken as 76,330 Btu per gallon.

Source: Hosein Shapouri, James Duffield, and Andrew McAloon (USDA); Michael Wang (DOE), "The 2001 Net Energy Balance of Corn Ethanol" (2004).

Energy use and net energy value per gallon of corn ethanol, before and after "coproduct energy credit" give-back.

by 26 independent scientific experts. The findings that the net energy balance from conversion of corn into ethanol was negative, were unanimously approved. Numerous investigations in the intervening decades have confirmed those results. In the most extensive study carried out recently by Dr. David Pimentel of Cornell University's College of Agriculture and Life Sciences, corn ethanol showed a negative net energy balance of -29%.⁵

However, according to Hosein Shapouri, the leading economist promoting ethanol at the USDA, those earlier studies "are useless, because we didn't know how to make ethanol then." It took 100,000 Btu's per gallon just to process it in the inefficient plants of that time, Shapouri recently told *EIR*.

But, Shapouri's leading opponents in the great debate over net energy balance, Pimentel and Prof. Tad Patzek of Berkeley's Department of Environmental Engineering, do not use the 1981 figures. When their estimates for the steam and electricity required to distill ethanol from corn are converted into units of Btu per gallon,⁶ their figure comes to 53,431. Shapouri gives a figure for the energy consumed in ethanol conversion of 52,349 for wet milling and 47,116 for the dry milling process, yielding a weighted average of

49,733 Btu per gallon. The difference is hardly enough to account for the enormous discrepancy between -29% and +67% in their respective estimates of the net energy balance. Pimentel and Patzek add in other small inputs, including the energy cost of the steel, stainless steel, and cement contained in the plant, which Shapouri has not used, and a small energy cost for treating sewage effluent. But Shapouri factors in a figure of 1,487 Btu per gallon for ethanol distribution. After all is said and done, Pimentel and Patzek have 56,436, and Shapouri 51,220 Btu per gallon for the energy cost attributable to the refining end of ethanol production. Again, the difference is minor.

A much larger discrepancy occurs respecting the energy cost attributed to corn production. Shapouri gives 18,713, while Pimentel and Patzek's data, after conversion of units, yields 37,884 Btu per gallon, more than double Shapouri's figure. The difference is 19,171 Btu, or 26.6% of the 72,052 Btu per gallon total energy needed for corn ethanol production, as calculated by Shapouri. Shapouri claims that his data are the best available from years of USDA calculations, and that Pimentel is not knowledgeable on many aspects of agricultural production. Pimentel is an entomologist, an insect specialist, Shapouri notes. But Pimentel says that Shapouri has shopped his data. He has taken the corn yields from the best-producing states, and looked for the lowest-value data for such items as the application rate of various fertilizers. Pimentel also says that Shapouri has omitted assigning an energy value for the farm labor. Shapouri concedes that point, but says that he sees no reasonable way to assign such a cost.

One of the largest energy inputs to corn growing is in the production of nitrogen fertilizer. Almost all nitrogen in fertilizer is derived from ammonia produced by the Haber-Bosch process which takes nitrogen from the atmosphere, using natural gas as a source for hydrogen and heat. Pimentel assigned a value of 11,452 Btu per gallon for the heat energy contained in the nitrogen fertilizer used for corn ethanol production in 2003; he may have lowered the estimate somewhat in subsequent years. Shapouri's figure from 2002 is 7,344 Btu per gallon. The difference of 4,108 accounts for 22% of the 18,713 Btu per gallon total energy cost which Shapouri assigns to corn production. Asked to explain his much lower figure, Shapouri says that the energy cost for nitrogen fertilizer has dropped considerably in recent years, owing in large part to the closing down of older, inefficient plants in the United States. Shapouri says that much of the ammonia and other nitrogen compounds are now imported from newer plants in such locations as Trinidad and Tobago, where natural gas is cheap. Patzek reports that improvements in the production process have reduced the energy cost of ammonia by about one-third over the past 60 years, but the figure Patzek gives (in 2004) for the specific energy consumption of nitrogen fertilizer is still about 26% higher

5. David Pimentel and Tad W. Patzek, "Ethanol Production Using Corn, Switchgrass, and Wood; Biodiesel Production Using Soybean and Sunflower," *Natural Resources Research*, March 2005.

6. A British Thermal Unit (Btu) is the quantity of heat required to raise the temperature of 1 pound of water by 1°F when the water is at its temperature of maximum density (39.1°F). A kilocalorie, the unit used in Pimentel's studies, is the quantity of heat required to raise the temperature of 1 kilogram of water by 1°C, at a temperature of 15°C. There are 3.97 kilocalories (the unit used to measure nutritional value of food, also known as the Calorie) in 1 Btu.

than that of Shapouri et al. in 2002. Shapouri also uses a somewhat lower figure than other authors for the application rate per hectare of the nitrogen.

The Great Give-Back

The really suspect part of the combined USDA and DOE analysis of the ethanol energy cost is yet to come, however. Even after all the differences noted so far, Shapouri's analysis results in what he calls an *energy ratio* of 1.06, that is a +6% net energy balance. How does that become +67%?

One part of the answer is to be found in an accounting program, technically known as a process simulation program, called ASPEN Plus. It was adapted by a USDA employee by the name of Andrew McAloon to apply to the corn ethanol calculation, according to Shapouri. The gist of the adjustment lies in what Shapouri et al. call the *coproduct energy credits*. There are certain byproducts of the ethanol production process, principally a substance known as distillers dried grains (DDG), and smaller quantities of corn gluten feed (CGF), and corn gluten meal (CGM). The DDG byproducts have some value in preparation of animal feeds for ruminants, although they are of limited value for feeding hogs and chickens, according to Pimentel and Patzek. In any case, their preparation by other means, if they had been produced, would have taken a certain amount of energy. The argument is, thus, that an energy credit should be assigned them.

Patzek believes their energy value is zero or less, because the costs of their production, including restoration of the soil, are greater than they are worth. Soybeans, which require no nitrogen fertilizer, make a much more effective animal feed, he points out. Pimentel has generously assigned an energy credit of 6,684 Btu per gallon to the DDG byproduct.

However, Shapouri et al., by means of ASPEN Plus, have given to the byproducts an energy credit of 19,167 Btu per gallon, or 26.6% of the total energy they had calculated for the entire ethanol production cycle!

But that's not all. Another 7,084 Btu per gallon of coproduct energy credit is allocated to the corn production and transport process. The argument is that ethanol is derived from the starchy part of the corn, and corn consists of only 66% starch by weight. Therefore, only 66% of the energy cost of corn production and of corn transport should be assigned to ethanol production. It would be as if a refiner of ore with a 5% useful metal content were to say that 95% of the cost of mining and hauling the ore should be discounted. Taking into account this additional gift, Shapouri et al. achieve a total *coproduct energy credit* of 26,250 Btu per gallon. The total energy consumed in ethanol production thus miraculously shrinks to 45,802 Btu per gallon. The energy value from burning a gallon of ethanol has been measured as 76,330 Btu per gallon, and thus a net energy value of 30,528 Btu per gallon, or +67% is achieved!

It is already past time for our new Congress to open vigorous investigations into this giant hoax.

Only Nuclear Power Can Close Energy Gap

by Marjorie Mazel Hecht

Nuclear energy is the only way to keep the lights on and the wheels of industry turning in the United States and around the world. There is no other way to ensure that the 6.5 billion and growing world population will enjoy the standard of living and longevity typical in the industrial world today. Windmills, solar cells, biomass, and other so-called alternatives cannot power an industrial society.

The energy released from a chain reaction of splitting atoms inside a nuclear reactor has a higher energy flux density than older energy sources like wood, coal, oil, and gas. To get an idea of this, consider that 1.86 grams of uranium fuel equals the energy in 30 barrels of oil, or 6.15 tons of coal.

The higher temperatures of fission enable nuclear to efficiently create hydrogen fuel (as a petroleum replacement) from water, and to efficiently power industrial processing like seawater desalination. Nuclear energy is efficient, clean—and also renewable! Spent nuclear fuel can be recycled—97% of it—into new reactor fuel.

But the “business as usual” method is not going to build the numbers of nuclear plants that the United States, and the rest of the world, need to move civilization forward (and certainly not in the time frame that is required to save millions of lives). Going nuclear is a question of real national security. A nation cannot exist, much less thrive, with an inadequate, decentralized “micro”-energy system of the sort promoted by bio-fools like Amory Lovins. We need a Manhattan Project-type approach to civilian nuclear energy, a Great Projects mission with the funding to get the job done.

Nuclear engineer Jim Muckerheide, the president of Radiation, Science, & Health, who is also the state nuclear engineer for Massachusetts, has proposed such a new public corporation as the only feasible way to tackle the daunting task of building 6,000 nuclear plants worldwide by 2050 to meet projected electricity needs.¹ The Russians, he said, are organizing such a national entity, and have set the goal of building 100 nuclear plants, 40 of them inside the country, and 60 exported by 2030. China has a similar approach, with its National Nuclear Corporation, working with local governments and private vendors to build new plants. Its short-term goal is to build 32 units by 2020.

Here, the Bush Administration has a long-term nuclear

1. See James Muckerheide, “How to Build 6,000 Nuclear Plants by 2050,” *21st Century Science & Technology*, Summer 2005.

program with the goal of building an initial nuclear fuel recycling facility and a fast “burner” reactor to eliminate long-lived transuranic isotopes from spent nuclear fuel, in the next 15 years. But the program is driven by a political ideology of centralizing control over the nuclear fuel cycle, not putting multiple units on line. The U.S. nuclear industry meanwhile is caught in its supposed bottom line, justifying each planned new unit individually against the variations in coal and oil prices and financial risk reduction, and trying to get as much as possible out of its existing fleet of nuclear plants. The industry is not willing to invest in new plants without government guarantees.

The bulk of the necessary funds should be generated in the same way that Lyndon LaRouche has proposed for the rest of the nation’s infrastructure: a system of low-interest (1 to 2%) government loans to jumpstart nation-building infrastructure. The payback for such investment over the coming decades would be enormous.

The Safety Question

The rational person can comprehend the precautions and risks involved with an advanced technology like nuclear. But those with an irrational fear of “nuclear” are like the many-headed hydra; every time one question is reasonably answered, another fear will pop up.

Radiation is all around us (from cosmic rays), and inside us (from the foods we eat). Natural background radiation varies considerably from place to place, based on altitude. High-altitude Denver, for example, has about twice the natural radiation of Dallas. On average, Americans get about 360 millirems per year of radiation. In addition to natural background radiation from cosmic rays, the ground, and building materials, there are man-made radiation sources: coast-to-coast airplane flights add 5 mrem; watching color television adds 1 mrem; one chest X-ray adds 50 mrem. How much do all the nation’s nuclear plants add to the average? About 0.003 mrem. Coal plants emit more radiation than nuclear plants because of the natural radiation in coal, which is discharged at the stack!

As Edward Teller liked to quip: “In sleeping with a woman, one gets just slightly less radioactivity than from a nuclear reactor; but to sleep with two women is very, very dangerous.”

The biggest radiation myth is that all radiation is dangerous, no matter what the dose. In actuality, low-dose radiation has been shown to be beneficial to human health. It is wrong to take the known damage from high-level radiation exposure and extrapolate this damage down to a zero dose. Instead, as one nuclear scientist has suggested, we should have a “radiation deficiency” standard, because people who live in areas of relatively high background radiation turn out to live longer and be healthier than their counterparts in sea-level areas!²

But are nuclear plants themselves safe? The U.S. nuclear

plants have multiple safety systems and are built with thick concrete containment walls. Today’s nuclear plants operate like other power plants: Heat from burning coal, oil, gas, or uranium is used to boil water and create steam, which then turns a turbine to produce electricity. Operators are trained and plants are highly regulated.

Tomorrow’s plants, the fourth-generation nuclear reactors, are fail-safe, and automatically shut down if there is a problem, even without the assistance of an operator. The fuel cannot be damaged by accident conditions. Can things go wrong? Yes. But the risk to the public of a nuclear accident is very small—much smaller than the risk of driving a car, smoking a cigarette, or doing any number of risk-laden activities, including working in (or living near) a coal-fired plant.

We need to build many kinds of nuclear plants: large ones for urban-industrial centers, medium and small reactors for developing nations and remote areas, breeder reactors to create new fuel, fusion-fission hybrids to make the transition to a fusion economy. But the workhorse of the next generation of nuclear reactors will be the modular high-temperature gas-cooled reactor, both the Pebble Bed Modular Reactor (PBMR) and the Gas-Turbine High Temperature Reactor (GT-MHR). The first, originally a German design (a small plant operated there from 1967-89), is being built in South Africa, and a small plant now operates in China. The second, designed by San Diego-based General Atomics, is being built in prototype in Russia, with the aim of burning excess plutonium from weapons.

The advantages of these reactors is that they are small enough to be modularly produced on an assembly line and shipped to the plant site for assembly, thus cutting production costs. The nuclear site can be configured to start with one or two units and build up to six, as needed, making use of a single control building.

The GT-MHR is a 285-megawatt plant with passive and inherent safety features that make a meltdown impossible. Its tiny fuel particles are encased in ceramic spheres, which serve as “containment buildings” for the fission process. The overall design prevents the reactor from ever getting hot enough to melt the ceramic spheres that surround the nuclear fuel. The spheres are mixed with graphite and shaped into cylindrical fuel rods.

The high temperature of the reactor (1,560°F), compared to the 600°F limit of a conventional water-cooled nuclear reactor, gives it greater generating efficiency, and allows a wide range of industrial applications. It uses a direct-conversion gas turbine, with no steam cycle. The heat is carried by the helium gas, which is also the coolant. This simplifies the system and increases efficiency. The GT-MHR is 50% more efficient than conventional light-water nuclear reactors.

2. For further reading: See nuclear articles accessible from the home pages of *EIR* <http://www.larouche.pub.com> and *21st Century* <http://www.21stcenturysciencetech.com>.

British Crown Assaults Canadian Wheat Board in Grab for World Grain Control

by Rob Ainsworth and Jean-François Sauvé, Canadian LaRouche Youth Movement

Acting through its Canadian and Australian Privy Councilors, the British Crown has launched a coordinated assault to destroy both the Canadian and Australian Wheat Boards, to the benefit of its assets in the international grain cartel. Combined, the two nations account for a stunning 65% of global wheat exports, control of which would give the Crown and its food cartel unchallenged dominance over world wheat prices and supplies.

As documented in this article, and in an accompanying article on the case of Australia, the assault on the two nations' wheat producers is moving in lockstep. "Single desk" wheat boards (export monopolies) were established in both nations in the 1930s, to protect their respective farmers, and to guarantee national food supplies. After a prolonged governmental and media campaign against the Canadian Wheat Board (CWB)—which controls 50% of world wheat exports—Prime Minister Stephen Harper's government in early 2006 tried to ram through a law which would have stripped the CWB of its single desk. Then, on Oct. 5, Queen Elizabeth II's Canadian Governor General made an almost unprecedented public intervention into the political fray with an "Order in Council" aimed at destroying the CWB. Meanwhile, in Australia, the government in 1999 corporatized the Australian Wheat Board (AWB), preparatory to its being privatized (which has not yet officially happened), and, in December 2006, the government of Prime Minister John Howard stripped the AWB of its export monopoly.

The Strategic Setting

A 1994 study by *EIR*¹ documented how the international financial oligarchy centered in the British and Dutch royal families, known as the "Club of the Isles," controls a preponderance of the world's most powerful corporations in raw materials (including mining, petroleum and food), in finance, and in the media, among other fields. The Club's assets were estimated by insiders at US\$9 trillion in 1997, and have grown phenomenally since then. Merely a few of the names in its

corporate apparatus include:

Mining: Rio Tinto Zinc, BHP, CVRD, Anglo-American, De Beers, Lonrho, and Barrick Gold;

Oil: Royal Dutch Shell, BP;

Banking: Bank of England, HSBC, JP Morgan & Co., Lazard Brothers & Co., N.M. Rothschild & Sons;

Food: Cargill, Archer Daniels Midland, Louis Dreyfus, and Bunge and Born.

Coordinated by Queen Elizabeth's Privy Council in London, with its House of Orange cousins in The Netherlands, the Club rests upon the long-standing British imperial tradition of integrating its corporate elite with government ministers and the top echelons of Britain's intelligence services. This Anglo-Dutch entity is the primary force promoting globalization, free-market neo-liberalism, and the end of nation-states as the preeminent political institutions on the planet; its fronts include such "one-worldist" entities as the European Union and the World Trade Organization. At issue is control of the world's strategic raw materials in a time of global financial crisis, as the U.S. dollar faces imminent collapse.

A new world financial architecture will be created from the ashes of the current floating exchange-rate-system. The as-yet-unresolved question is who will determine the nature of the new arrangement, which will either be an agreement amongst sovereign nation-states, or be dictated by private financier power. It is in this context that the Canadian Prime Minister's Office and other Crown agents are being deployed against the CWB. Once the solidarity of Canada's greatest co-op has been destroyed, the international grain cartel (U.S.-based Cargill, and Archer Daniels Midland; EU-based Louis Dreyfus, and Bunge and Born), which controls the transportation and distribution infrastructure, will be free to crush the independent Western Canadian farmer, and to secure control of two of the world's most important bread baskets, in Canada, and in Australia.

The Assault on the CWB

Canadian Prime Minister Stephen Harper (Conservative) and Agriculture Minister Chuck Strahl have trumpeted their intent to dismantle the CWB, established in 1935 and com-

1. "The True Story Behind the Fall of the House of Windsor," *EIR*, Oct. 28, 1994.



Ted Buracas

Prime Minister Stephen Harper has led the charge to dismantle the Canadian Wheat Board, which protects farmers from looting by the globalized food cartels.

posed of 75,000 farmers in Western Canada (where Canada's wheat is grown), and to replace it with a CWB II, which would offer "marketing choice" to Canada's wheat and barley farmers. Currently, all such farmers must, by law, sell their produce to the CWB, under the single desk marketing system. The government's "free enterprise" sophistry ignores the wide-ranging benefits which the Wheat Board's single desk provides to its members, such as procuring, on average, Can\$350-400 million in additional annual profits due to increased bargaining power and marketing directly to the end consumer. When other benefits, such as freight rate caps, are included, these extra profits approach \$800 million. Instead, as stated in the 2006 Conservative Party Platform, the government promises to "give farmers the freedom to make their own marketing and transportation decisions and to direct, structure, and voluntarily participate in producer organizations," such as the CWB.

By claiming to offer farmers "the freedom to choose," Harper implies that the Wheat Board will survive his intended changes. He lies. Prof. Murray Fulton, of the University of Saskatchewan, conducted a study, *CWB in an Open Market*, examining the potential impact of introducing a dual-market system. In the abstract of his report he writes:

The most likely impact of removing the single-desk selling powers is that the CWB will cease to exist. The elimination of the CWB would transform the Canadian

grains industry, with the impact of this change felt in virtually every part of the system. The changes that would accompany the loss of the CWB's single desk selling power would make the Canadian system more and more like that in the United States. It is expected, for instance, that grain company and railroad competition would fall, that producer cars and short line railways would suffer, that the current freight revenue cap would disappear, and that less value would be returned to farmers. *Once these changes are made they are irreversible—it would be virtually impossible to go back and restore the system to what is currently in place [emphasis added].*²

Today, Canada produces 12% of the world wheat supply, but accounts for up to 50% of world exports. The regulated, single-desk CWB is an essential institution for western farmers. It provides high value-added services and a powerful selling advantage to those farmers, helping them market their products and get a fair return for their crops. All sales revenues (\$4-6 billion annually), less operating costs of 5-7%, are returned directly to the farmers. Of great import is the CWB's method of dealing directly with the end purchaser, thereby cutting the grain cartel out of immense profits. The Crown's intention to dismantle the CWB, for the benefit of the international financiers who dominate the world food supply, is a matter of the utmost importance for the sovereignty of our nation. It is a threat to our national security.

The destruction of the CWB will expose Canada's farmers to the Hobbesian world of the so-called "free market," which is increasingly dominated by a multinational cartel, of which four companies alone control 73% of the international grain trade: Cargill, Archer Daniels Midland (ADM), Louis Dreyfus, and Bunge. With the new arrangement, farmers would be forced to negotiate individually with the grain cartels, and at the same time compete against one another, thus heralding the end of the family farm in Western Canada. The inevitable result of the government's policy will be either widespread consolidation into a small number of giant factory farms and the consequent destruction of Western Canadian society, or the highly unlikely issuance of massive subsidies to maintain family farms, as the multinationals force prices lower than the cost of production.

History of the CWB

"Canada would not have existed without the western wheat economy," wrote Dr. John Herd Thompson, in a 1996 study of the history of the CWB.³ This was true at the founding of our nation, and it is still true today. Because of the impor-

2. www.kis.usask.ca

3. www.cwb.ca/public/en/hot/judicial/pdf/measner/Tab_1.pdf

tance of agriculture, the wheat trade has long been regulated. The precursor of the CWB was created in 1917 to alleviate the difficulties which farmers were experiencing at the hands of middlemen and market speculators. The CWB of today was born later, out of both the desperation of the Great Depression and the prior experience of pooling and joint selling in the western provinces.

For much of its history, the CWB functioned as a Federal government agency. However, in 1998 the government changed its management composition, allowing farmers to run the corporation directly, while ensuring a certain amount of oversight to protect the public interest. This oversight is now, in a gross abuse of power, being exploited to ultimately destroy the CWB. The government established a Board of 15 directors which “assumed overall responsibility to direct and manage the business and affairs of the CWB.” Ten directors are elected by the farmers, four are appointed by the government, while the president and CEO are appointed by the Federal government in consultation with the Board. The government’s role, apart from appointing these five directors, is supposed to be limited to reviewing and approving certain financial aspects of the CWB’s operations, and guaranteeing its pre-harvest payments to farmers, its borrowing, and its export sales; but technically, as ex-president and CEO Adrian Measner has observed, the 1935 Canadian Wheat Board Act “also gives the federal government the authority, through the auspices of the [Governor General in Council], to give direction to the CWB as to the manner in which it operates. However, this provision has rarely been used.” More importantly, he emphasizes that “*over the long history of the CWB this provision has never, prior to 2006, been used over the CWB’s objections*” (emphasis added).⁴

Prime Minister Harper vs. the CWB

In May 2006, Bill C-300 was introduced into the federal Parliament, with the intention of creating a loophole to the requirement in the Canadian Wheat Board Act of 1935 that all Western Canadian wheat and barley producers sell their grain to the CWB. The loophole would have permitted farmers to sell their grain directly to grain-handling companies such as Agricore United (controlled by ADM) and the Saskatchewan Wheat Pool, which is allied with ADM subsidiary Töpfer. This action, on the part of the government, was illegal, as expressed in section 47.1 of the Act, which stipulates that, *before the government can introduce legislative changes to the Act, it must consult the Wheat Board directly and the farmers must approve the proposed changes by a plebiscite. The government did neither.* Fortunately, the bill was defeated by the opposition parties, which united against such blatant injustice.

Only weeks later, Minister Strahl refused to approve the CWB’s annual corporate plan because it was “based on a

strategic direction that envisages the maintenance of the single desk.” Strahl stated that before he would approve the plan, the CWB would have to “delete any reference to the maintenance of the single desk, and any activities in 2006-07 that . . . are geared to the maintenance of the single desk.”⁵ The Minister made these demands in full knowledge of, and complete disregard for, the law. Undaunted by serious opposition from farmers and a majority of the Parliament, Harper and Strahl pushed ahead with the Conservative agenda. On Oct. 5, 2006, the Governor General, “on the recommendation of the Minister of Agriculture,” issued an Order in Council, directing “The Canadian Wheat Board to conduct its operations in the following manner:

“a) it shall not expend funds, directly or indirectly, on advocating the retention of its monopoly powers, including the expenditure of funds for advertising, publishing or market research; and

“b) it shall not provide funds to any other person or entity to enable them to advocate the retention of the monopoly powers of The Canadian Wheat Board.”

This directive has effectively placed a gag order on the CWB, preventing it from defending itself, although the CWB is free to promote the government’s position! *This Directive is a de facto violation of one of the most important principles in our Charter of Rights and Freedoms: the right to free speech.*

The timing of this despotic Order in Council coincided with the CWB’s biannual elections, thus sabotaging the CWB at a critical moment. Simultaneously, the government campaigned aggressively for its preferred candidates, spending tens of thousands of dollars, while Strahl crisscrossed the western provinces in their support. Meanwhile, Harper and Strahl unleashed a further scheme. On Oct. 17, fully six weeks after the start of the election period, Strahl announced the removal of 16,000 of the 44,578 names from the voters list, without consulting the CWB. These measures, happily, did not induce the desired results: The farmers overwhelmingly chose candidates who supported the single desk. In the meantime, the government had replaced three of its own directors with people who were openly against the single desk, hoping to destabilize the co-op and intimidate the farmer-elected directors into accepting the government’s free-market policies. The government has now effectively split the Wheat Board, with eight directors supporting the single desk, countered by seven government agents.

Strahl’s most recent act of sabotage was the unprecedented firing of Wheat Board CEO and President Adrian Measner, explicitly because he refused to support the government’s policy of eliminating the Wheat Board’s monopoly. In an interview with one of the authors, a current CWB director asserted that “Adrian Measner was fired because he upheld the law.”

4. www.cwb.ca/public/en/hot/judicial/pdf/affidavit_ameasner.pdf

5. www.cwb.ca/public/en/hot/judicial/pdf/measner/Tab_20.pdf

Attacks on the CWB From the Private Sector

While the government proceeds according to this free-market agenda, it is getting plenty of help from operatives in the private sector who are linked to the international grain cartels:

The National Citizens Coalition: The NCC claims to be a grassroots organization, but is actually an extreme right-wing think-tank which promotes free enterprise and free trade, whose former president is none other than Prime Minister Stephen Harper. It is virulently anti-union, anti-regulation, anti-“big government,” anti-public health care.

The NCC is part of a nest of right-wing organizations in Canada (and in Australia) in the stable of the Mont Pelerin Society, the British Crown think-tank perhaps best known for designing the privatizations in Britain under Conservative Prime Minister Margaret Thatcher, and which is the “mother organization” for the deregulation/privatization movement worldwide, in which the nation-state’s assets are sold off for a song to “private enterprise.”

The Media: The anti-CWB *Calgary Sun* and *Edmonton Sun*, along with dozens of other daily and weekly publications, are owned by Sun Media, which, in turn, is owned by Quebecor, Inc., one of the biggest media conglomerates in Canada, posting annual revenues over \$10 billion. Sun Media’s publications are known for their right-wing outlook. **Brian Mulroney**, the former Prime Minister who brought the Free Trade Agreement (FTA) and North American Free Trade Agreement (NAFTA) to Canada, is the chairman of the Board of Quebecor and its subsidiary Quebecor World, the second-largest printing company in the world. Mulroney is also the mentor and closest advisor of Quebecor President and CEO Pierre Karl Péladeau.

Mulroney is one of the most powerful men in Canada. He holds numerous influential Directorships, among them a spot on the International Advisory Council of JP Morgan Chase & Co., along with Henry A. Kissinger and George P. Shultz. He also sits alongside business magnate Peter Munk on the Board of Barrick Gold, whose International Advisory Board features former U.S. President George H.W. Bush. Mulroney is a protégé and business associate of Paul Desmarais, Sr., who controls Power Corp., one of Canada’s predominant companies, which controls assets in the range of \$280 billion. He is also an associate of the New York Council on Foreign Relations and a member of the Bilderberg Group. Finally, Mulroney sits on the Board of ADM, one of the companies which would benefit most from the destruction of the CWB.

The media role in the campaign against the CWB is clearly shown in the case of journalist Wendy Holm. On Oct. 26, 2006, before the House of Commons Select Standing Committee on Agriculture and Agri-Food, Holm, an award-winning Western Canadian journalist, economist, and agrologist, testified that on July 27, she had attended a rally of farmers in Saskatoon, in support of the Canadian Wheat Board. “Later that afternoon,” she said, “Chuck Strahl emerged from the



www.agr.gc.ca

Chuck Strahl (left), Canada’s Minister of Agriculture and Agri-Food and Minister for the Canadian Wheat Board, meets with U.S. Secretary of Agriculture Mike Johanns in Washington in 2006. Strahl refused to approve the CWB’s annual corporate plan, unless it adopts his free-market credo, in violation of the law.

invitation-only meetings he had been having across the street, with those who agreed with the Harper government’s views on the Canadian Wheat Board—to hold a press conference.

“I attended as a freelance columnist with the *Western Producer*, and asked the minister whether his government was prepared to implement dual marketing without a supporting vote of producers and in violation of Section 47.1 of the Act. I then returned to B.C. [British Columbia] to write my column.

“That Monday, I was about to file my August *Western Producer* column when I received a phone call from my editor, who seemed shaken. She said they’d received a call from Chuck Strahl’s office—and from one other person—suggesting that my presence at the rally indicated bias on the part of *Western Producer*. My monthly column, which had appeared on the op-ed page the second issue of every month for the past 12 years, was dropped permanently the next morning.”

It turns out that *Western Producer* is owned by Glacier Ventures International (GVI), which controls dozens of community newspapers across the western provinces, and which bought up all of the Canadian media of the Hollinger International Corp. of Conrad Black. GVI has become “the primary source of essential agricultural information for Western Canadian farmers and ranchers.” The second of the two calls which ended Holm’s career at *Western Producer* could trace back to Glacier’s Board of Directors, on which sits Brian Hayward,

CEO of Agricore United, the largest grain handler in Western Canada, and a subsidiary of Archer Daniels Midland.

Archer Daniels Midland: While there are numerous players in the world grain trade that would benefit from the destruction of the CWB, ADM plays a particularly prominent role. G. Allen Andreas is chairman of the Board, and is extremely well connected in the world of high finance: He is a member of the Supervisory Board of the A.C. Töpfer International Group, and on the Board of Directors of Gruma S.A. in Mexico, and Agricore United in Canada. He is a member of the Trilateral Commission, the Business Roundtable, and a trustee of the Economic Club of New York. He serves as a member of the European Advisory Board of the Carlyle Group, through which he has close connections to Paul Desmarais, Sr.

ADM is the biggest North American player in the current ethanol craze, which threatens to take untold hectares of arable land out of food production, and dedicate it to producing a type of fuel which costs more energy to produce than it supplies. This has not, however, stopped Prime Minister Harper from calling for the annual production of 4 billion liters of ethanol by 2010. This plan would not only enrich the grain cartel, but would marginalize the importance of the CWB on the prairies, as the wheat crop diminishes in size and consequence.

Should the CWB find its single desk monopoly annulled, ADM, as well as the other multinationals, would stand to make hundreds of millions, if not billions of dollars at the expense of our nation's family farms.

The Real Power: Her Majesty's Privy Council

The extremely unusual intervention by Canada's Governor General in October against the CWB reveals the hidden hand behind the plot to destroy both it and the Australian Wheat Board. The head of state for Canada and Australia, as for all nations of the British Commonwealth (the new name for the British Empire), is Queen Elizabeth II, who rules via her Privy Council in London. The fiction is that Her Majesty's power, as that of the Governors General who rule Canada and Australia in her name, is merely a quaint ceremonial relic of times past. However, when the stakes are high, the fist in

the velvet glove comes crashing down, as it did when her Governor General Sir John Kerr, in 1975, sacked Gough Whitlam, the popularly elected Prime Minister of Australia, or when Canada's Governor General assaulted the CWB.

The prime ministers of most Commonwealth countries are Privy Councilors. However Canada, unlike Australia, has its very own Privy Council, and therefore is, if anything, held in an even tighter imperial vise, reflecting Canada's historic role as a bastion of British imperial attempts to destroy the United States. In typical British understatement, the Canadian Privy Council's website describes how it works:

The Privy Council Office (PCO) provides essential advice and support to the Prime Minister and Cabinet. The Privy Council Office (PCO) is the hub of public service support to the Prime Minister and Cabinet and its decision-making structures. Led by the Clerk of the Privy Council, PCO facilitates the smooth and effective operations of Cabinet and the Government of Canada through the work of the PCO secretariats. PCO helps to clearly articulate and implement the Government's policy agenda and to coordinate timely responses to issues facing the government and the country.

And one of those "issues" for which the PCO is clearly providing "timely responses" is the destruction of the CWB. And so we also find that former Prime Minister Brian Mulroney, the chairman of the media conglomerate Quebecor, which is leading the crusade to destroy the CWB, is one of Her Majesty's Privy Councilors.

Canada Must Be Sovereign

In these times, when our national institutions are besieged, when the government has become a puppet of the moneyed men, and the rule of law is cast in doubt, it falls to those with a sense of the future to rally their countrymen not simply to oppose a policy, but to propose a workable alternative, in this case to the calamitous logic of globalization.

It is only in the context of a general financial reorganization and assertion of national sovereignty, in partnership with nations such as the U.S.A., Russia, China, and Germany, that Canadians may rest secure. The age of kings and oligarchs is past. We owe nothing to that parasitical cabal; we owe nothing to the Crown. The Crown has been the worst enemy and perpetual bane of our sovereignty, viewing Canada as simply a territory to be looted for raw materials and used as a geopolitical asset against the United States.

During December 2006, the CWB launched a court challenge to overturn the Governor General's intervention. Let us, in the same spirit, finally abandon this colonial past and look to the future, which is heavy with expectation—of development, progress, and the unleashing of our once-remarkable industrial energies; yet only if we commit ourselves to the current principled struggle for liberty that is unfolding in the United States, as well as in Canada.

HOTLINE

**LaRouche and EIR Staff
Recorded Briefings
—24 Hours Daily
918-222-7201, Box 595**

Cartels Crush Wheat Board in Australia

by Robert Barwick

The Liberal/National government of Australian Prime Minister John Howard, in December 2006, stripped the Australian Wheat Board (AWB) of its export monopoly of wheat, known as the “single desk.” Thus ended over six decades of regulated wheat marketing for Australia’s wheat growers, who produce 15% of all world wheat exports. There are some 16,000 grain farms in Australia, and 95% of those producing for export are in the state of Western Australia; 12,500 of the 16,000 are small-to-medium size farmers, who account for about half the income of the overall grain industry, and who will almost certainly be driven out of business without the support infrastructure—including guaranteed prices—formerly provided by the AWB.

While the effects will be devastating to Australia’s rural industry, and in particular to Western Australia, it will be a windfall to the British Crown’s international grain cartel, which has long eyed Australia’s important international markets for wheat, in particular the government-to-government deals which bypass the cartel.

A Rigged Scandal

The nominal cause for Her Majesty’s Privy Councillor John Howard pulling the plug on the AWB’s monopoly, was the so-called “oil for food” scandal in Iraq, which first surfaced in 1999. At the behest of “Canada” (i.e., the Privy Council which runs the country), the United Nations started investigating kickbacks paid to Saddam Hussein’s government by almost anyone doing business in Iraq. Its investigation was headed by Trilateral Commission operative and former U.S. Federal Reserve chief Paul Volcker, the man who destroyed much of the U.S. economy under President Jimmy Carter by raising interest rates overnight to more than 20%. Central banker Volcker found the AWB to be the “biggest” of the more than 2,000 offenders, and Australia’s huge, AWB-organized wheat contract with Iraq suddenly disappeared to the advantage of the “United States”—meaning the international grain cartel.

Howard appointed a royal commission under Queen’s Counsel Terence Cole to supposedly investigate the AWB’s role in this affair. In late November 2006, Cole handed down his five-volume, 2,065-page report, which duly found the AWB guilty, and also, as expected, cleared Howard’s government. The Howard government’s Department of Foreign Affairs and Trade (DFAT) had oversight over the AWB’s deal with Iraq, and it is beyond question that dozens, if not hun-

dreds, of Australian government officials were fully aware of the AWB’s \$290 million in kickbacks to Saddam. Howard, however, rigged the terms of the “inquiry” so as to preclude Cole from looking into the government’s role. Even the neon Rupert Murdoch’s national daily, *The Australian*, squealed about the blatant coverup:

“Forget the spin, Prime Minister. The AWB kickbacks scandal will stand as a dark stain against the competence of the [Liberal/National party] Coalition, irrespective of the claims by John Howard and his senior ministers that they were in the dark all along. The central question remains: How did the Government miss nearly \$300 million paid in kickbacks to Saddam Hussein’s former regime?”

Howard parried that he had given Cole the right to expand his inquiry to look into the government if he thought that were appropriate. Surprisingly, Howard’s hand-picked flunky chose never to do so, despite testimony pouring in from all sides, that the government knew precisely what was afoot. And, mysteriously, some relevant documents turned up “missing” from the DFAT’s files. All in all, a case of business-as-usual in a Commonwealth country, where royal commissions are notorious cover-ups.

The Usual Free-Market Swill

Howard has been after the AWB for years. Already in 1999, he rammed through a “corporatization” of the AWB, overseen by Bankers Trust, preparatory to privatizing it (i.e., selling it off to the grain cartel for peanuts). His argument for “corporatization” and then privatization was the usual “free market” swill about how the “farmers will be free to go wherever they can to get higher prices.” He knows that to be absurd because, under the fairly modest free market “reforms” implemented in the industry thus far, farmers are already getting clobbered.

For instance, under the AWB single desk system, the farmer cooperative in Western Australia, Cooperative Bulk Handling (CBH), had a well-developed network of a lot of small storage bins throughout the countryside; many of these have now been closed. This disrupts the harvest by forcing farmers to arrange other, costly transport; by getting deliveries stuck in long waiting lines; and by forcing producers to pay higher handling costs, which have jumped such that the quoted price for wheat of \$215 price per ton now drops to only \$180 after CBH takes its cut. And, naturally, CBH and the cartel companies will just “cherry pick” the best wheat from the biggest producers, letting the rest of the farmers sink, whereas profits under the AWB system were equally shared across the entire wheat crop, based solely on the amount delivered.

After Cole delivered his pre-arranged verdict, Howard immediately stripped the AWB of its single-desk monopoly, *although that monopoly had nothing whatsoever to do with the corruption charges*. Two other grain export licenses have been issued already, including one to a consortium involving Cargill.