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'ETHANOL MADNESS'

End the Great 2006 Biofuels Swindle

by the Staff of *Executive Intelligence Review*

The current mania for ethanol, biodiesel fuels, "flex-fuel vehicles," and the like, is creating a financial bubble—within which is a swindle—inside of which is a slippery old methane fart, waiting to explode. Members of Congress taking part in the swindle, enthusiastically or not, are going to wind up very smelly when the ethanol party ends, the investment boom collapses, and motorists indignantly demand regular gasoline again.

Why should we shift to biofuels for transportation; ethanol, for example? Well, first, we'll get 20% less gas mileage from our fuel that way. Second, we can pay a good deal more for fuel, in direct prices and subsidies; in fact, we'll be able to use a fuel whose price is inflating much faster than the price of gasoline. Third, we'll be able to spend tens of billions of dollars more a year in tax revenues, subsidizing ethanol makers, including some of the biggest global cartels. Fourth, we can use up more petrochemical energy making ethanol than we get by using it. Fifth, we can use up large volumes of water making the ethanol, including in some very water-scarce regions of the country—and overburden our transport



United Nations/Jerry Frank

Congressional job creation you don't want: In Brazil, ethanol depends on sugar cane harvesting by virtual slave labor. That's one of many reasons any "biofuels boom" in the United States is a fraud.

infrastructure as well. Sixth, we could soon deny corn exports to nations that need them—maybe even cut our own consumption of corn—and burn it in our cars instead.

And last but not least, we can delay or cut off the revival of nuclear power for industry and economic expan-

sion; instead, we could take a major scientific and technological step *backwards*, a great leap back toward primitive ages when mankind burned straw for fuel.

Those are seven pretty good reasons—for the past year, they've been enough to affect the public *posture* of quite a number of Members of Congress.

In the worst example, one such Congressman—an Ohio Democrat—addressed a rally promoting the ethanol madness in his home state on May 20, and then stepped off the podium and told a questioner that he knew ethanol *wouldn't work* as a solution to high fuel prices; he knew, in fact, that ethanol is expensive and uses up more petrochemical energy in production than it gives back in burning; but, he said, he was promoting it because he had no better alternative. This Congressman was not just posturing, but *lying* to his constituents about the crucial question of inflation and the economy—and this in a depressed state where Democrats have made Republican elected officials' lying and corruption a major issue.

Another, a northern Republican governor, cheered on the start of construction of new corn-ethanol factories in his state, admitting publicly that the process was too inefficient for fuel! He claimed that the *next generation* of technologies would surely cure that, so let's get on with it. As the friendly drunk could tell you about ethanol, "the more you drink of it, the better it seems to work." A combination of switchgrass and farm dung is alleged to make a much "stronger" fuel variety. No doubt.

And if you've just invested your constituents' money, your farm cooperative, or your nephew's pension plan in it, it becomes a virtual miracle cure. Why, a Congressional deputy leader of the Democrats proudly called for installation, in the Congressional garage, of an E-85 Ethanol fuel pump. He was sure this would cure any defects of national leadership the voters have found in that body recently. Another leading Democrat thought the better part of \$50 billion was not too much to lavish on such technologies.

The great satirist Jonathan Swift painted such a scene in *Gulliver's Travels*, wherein scientists of the Academy of Lagado strove to extract sunbeams from cucumbers for warming, and to reconstitute food from dung.

The desire to head off a new development of nuclear power—the actual alternative to oil imports, carbons pollution, low power growth, and high power prices—is transparent in both the right-wing and liberal or environmentalist promotions of the biofuels fraud. Ethanol is already being subsidized with billions a year, and would be fertilized with tens of billions annually, by those in Congress and elsewhere who denounce any government move to approve and speed up new nuclear plant construction as an unwarranted "subsidy."

This Tulip Will Bubble, Not Burn

In the articles below, we show that the delusional ethanol mania gripping many, both inside the Beltway and out in the Cornbelt, defies well-established scientific principles of technology and physical economy. "Replacing" one gallon of gasoline from imported oil,

with a gallon of ethanol from domestic corn, costs the nation \$7.24 in prices and subsidies, by one exhaustive calculation; even a small increase in the tiny fraction of transportation fuel which is ethanol now, would consume most of our corn crop, leaving none to export and little to eat. A significant shift—say, to 25% of transportation fuel, as the auto "Big Three" CEOs disingenuously proposed—would plant 13% or so of the nation's entire landmass in corn for that purpose alone. The underlying physical situation is that ethanol production consumes more fossil fuel energy than the ethanol gives when burned, for clear scientific reasons.

Ethanol's national average market price has made gasoline prices seem stable by comparison, catapulting from about \$1.20 a gallon in early 2005, to \$1.80 or so by September 2005, to \$2.75 a gallon this Spring. Now, it is just about at the price of regular gasoline—and that is *after* a Federal subsidy of 51 cents on every gallon, additional state subsidies and tax breaks, and some local subsidies. As the price has soared, 35 new ethanol plants have leapt up. Fermentation ethanol production has zoomed from 2.7 billion gallons in 2003 to almost 4.5 billion gallons annually now, and corn for ethanol now exceeds corn for export, by volume. The phenomenon is an ethanol investment bubble, adding at least several more "tulips" to the global commodities-markets fury of the past 18 months.

This bubble has been caused and fed by direct government subsidies, and by Soviet-like *orders* in the 2005 Energy Act that ethanol production grow to 12 billion gallons by 2010. The White House has pitched in by ordering states to put ethanol in their gasoline blends, beginning with California in 2001.

In fact, ethanol—the "alternative" to rising gas prices—has pushed the national price of gasoline *up* in recent months. At Senate Commerce, Science, and Transportation hearings on "gas price gouging" on May 23, witness testimony repeatedly acknowledged that government-ordered use of ethanol in gasoline has been driving up the gas price; inefficient truck transport of ethanol from the Midwest to the coasts, combined with refinery delays and costs in adding ethanol to gasoline blends, caused the additional 10-15 cent increase in gasoline prices in late April.

That is nothing compared to what will happen as an ethanol price bubble expands, before it bursts. We show in this feature that at the center of this bubble is the food cartel—specifically, the Archer Daniels Midland conglomerate, which has gorged on the Federal subsidies. ADM made 40% of all fermentation ethanol in the United States until recently; that is now down to 25%, as every local fund and cooperative tries to start an ethanol plant to tap the bubble. But ADM is itself building new biodiesel plants and reporting profit increases of 30% on the ethanol boom, its stock up 51% in a year.

We show that Brazil, the constantly cited model, produces ethanol *en masse* with virtual agricultural slave labor, more than with sugar; and that the Brazilian histo-

ry with ethanol in fact shows the economic/financial dangers ahead on the path of ethanol madness. Having produced ethanol fuel in cycles for 30 years, with 90% of all cars produced there being capable of burning E-85, Brazil has suffered repeated hyperinflationary bubbles of ethanol prices, and then of the prices of sugar. One of those cycles is going on now, and the price of ethanol within Brazil has increased 15% in the past few months, while sugar prices are at 25-year highs on global commodity markets.

The result: Once again, Brazilian motorists who were using ethanol are switching back to gasoline, and ethanol use is falling; once again, Brazilian ethanol producers are trying to get rid of tariffs and sell ethanol to the United States; once again, sugar-cane ethanol producers are switching back to producing sugar, and ethanol supplies are suddenly very short, pushing the price up further. Ethanol production in Brazil fights food production, helps generate the highest inflation rate in the world, and thus fights overall consumption.

Ethanol: Not a Kernel of Science in It

by Laurence Hecht

Ethanol is an excellent substance to tank up on. Just don't drive on it. It slows reaction time, impairs judgment, and it's illegal. In excess, it can make you giddy, stupid, mean, sour, depressed, and violent. It might even make you President.

Here we will inform you what ethanol is, why it is a worse than stupid way to replace our oil dependency, and why development of nuclear power is the only sane way to provide ourselves an economic future.

Ethyl alcohol or ethanol (C_2H_5OH) is the second in what chemists call the homologous series of alcohols, which include methyl, ethyl, propyl, butyl, and amyl alcohol, each one distinguished from the previous by the addition of an atom of carbon and two of hydrogen (CH_2). Man has been making ethyl alcohol since long before the discovery of its chemical and structural formula. Almost any plant substance can serve as the raw material—grapes, apples, corn, grain, and potatoes are traditional ingredients. To make some yourself, start with some store-bought apple juice which has been bottled without preservatives. Put it in a clean glass container, and let it sit several days. Yeast, naturally present in the air, will act on the fruit sugars—according to a process first deduced by Louis Pasteur—to change them into alcohol. This is called fermentation. Make sure you use a loosely fitting cover, because carbon dioxide gas is

An "ethanol boom" in the United States will do all the same things, and worse. Corn, particularly the U.S. corn crop, is a far more important food source for nations and people in need, than sugar.

And we show that the *political* promotion of the fraudulent ethanol craze, through foundations and think-tanks, has been led by—the neo-cons, the kindergarten of George Shultz and his Committee on the Present Danger. These are the mendacious crew who brought America the "Iraq cakewalk," the nonexistent weapons of mass destruction, the war that would pay for itself in oil revenue, and so many other of Dick Cheney's lies. Now, it's "energy independence through biofuels"; and such great anti-neocon truth-tellers as Al Gore, George Soros, and a host of liberal and labor outfits, are publicly backing Shultz's neo-cons in this swindle.

If Congress continues down this very slippery slope, with more and more billions of subsidies, the aroma of hypocrisy, and even deliberate lying for campaign contributions and votes, will cling for a long time.

released in the process, and could explode a tightly closed container.

If you wait too long, the fermentation will go to the next stage, converting the alcohol to vinegar (acetic acid). If you stop it at the right moment, you will have an apple cider of perhaps 5-10% alcohol content. The alcohol will be mixed in with the sugary fruit juice. A simple way to separate the alcohol is to freeze the mixture. The alcohol, which has a lower freezing point than the rest of the mix, will collect in a cylindrical hollow in the center of the frozen substance. One can also separate the alcohol with a still, or what chemists call a distillation apparatus. Ethyl alcohol has a boiling point of 173°F, well below that of water. By heating the mixture, the ethyl alcohol boils off first; its vapor can be collected by condensation on a cool part of the apparatus called a condenser. Both of these methods of separation are types of fractional distillation.

The Cost of Scaling Up

To produce ethanol on a commercial basis, the laboratory process of fermentation and distillation must be scaled up. Remembering that our original intention was to save on the use of petroleum products, we must therefore examine the amount of gasoline and other petroleum fuels that would go into the production of

ethanol as a replacement for gasoline. First we have the production of the corn or other vegetable product which is going to provide the sugars for fermentation. Modern agriculture is a highly energy-intensive operation: tractors and farm vehicles require a lot of gasoline or diesel fuel; ammonia fertilizers use natural gas as a feedstock; irrigation requires large amounts of electrical energy; farm work also requires human physical and mental labor, which requires energy for its maintenance. Bulk raw materials must now be transported from the farm to the still, for processing and distillation, another energy-intensive process, frequently using natural gas. In fact, more than the total current national consumption of natural gas would be required to power the stills to produce enough ethanol to replace our petroleum dependence.

When all of these inputs are taken together—studies by Dr. David Pimentel of Cornell University and Tad W. Patzek of the Dept. of Civil and Environmental Engineering at Berkeley have shown—alcohol production consumes more units of fossil fuel energy than it yields when burned as fuel. Corn ethanol, switchgrass ethanol, and wood alcohol (methanol) consume respectively 29%, 45%, and 57% more units of fossil-fuel energy than they give back on burning.

If we were so insane as to attempt to replace our petroleum usage with corn ethanol (the least inefficient of the choices), it would require placing 1.8 million square miles, or 51% of the land area of the 50 states, under corn cultivation, according to the calculations of retired University of Connecticut physics professor Howard Hayden (*21st Century Science & Technology*, Spring 2005, pp. 10-11). However, this is a physical impossibility, for not only could we not find the arable land; we would lack the fossil-fuel supply with which to generate our replacement fuel! Need we also mention that a large portion of the human population is suffering from malnutrition? Knowing that, can any moral person justify taking our productive agricultural land out of food production to feed this swindle?

The high cost of the energy inputs required for ethanol production is actually reflected in the price of the product. When all the tax credits and government subsidies are taken into account, the cost of ethanol comes to \$7.24 per gallon of “imported gasoline replaced” (see <http://zfacts.com> for an exhaustive study). A bipartisan grouping of Senators has now moved to remove the Federal requirement of a 10% ethanol additive to gasoline, because it is adding 30-40 cents per gallon to the price of gas. Not surprisingly, the largest financial beneficiary of the government subsidies have been the grain cartels—Archer, Daniels, Midland and Cargill—and hedge fund speculators who have recently moved in on the ethanol boondoggle.

Let us now see why nuclear power is an enormously better, and absolutely necessary alternative to the funny fuel.

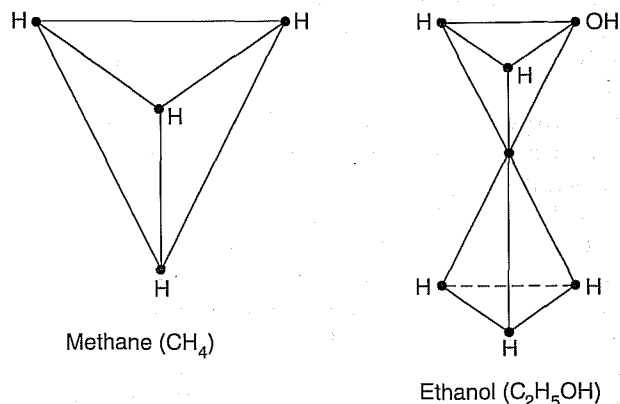
How Alcohol and Gasoline Burn

Structurally, alcohols are similar to hydrocarbons which are what make up the combustible parts of coal, oil, and gasoline. The hydrocarbons form a simple, homologous series, like the alcohols. Methane, one of the ingredients of natural gas, is the simplest hydrocarbon, consisting of a single carbon atom surrounded by four hydrogens. In the 1870s, two brilliant young chemists, Joseph Achille LeBel and Jacobus Henricus van't Hoff, deduced that carbon bonds with other atoms in a tetrahedral arrangement. Thus, the methane molecule (CH_4) could be pictured as a tetrahedron with a carbon in the center and a hydrogen atom at each of the four vertices. Ethane, the second in the hydrocarbon series, consists of two tetrahedra joined at their vertices (see **Figure 1**). Knowing this, its formula may be easily deduced by construction, as C_2H_6 , and so forth. The alcohol series are much like the hydrocarbons, except that one of the hydrogen atoms is replaced by a molecule consisting of a combination of oxygen and hydrogen (OH).

The connection between one atom and another is called a bond. We understand these bonds today as attractive relationships between the electrons in the outer orbitals of the atoms. Their exact nature, despite much study, is not yet fully understood. However, the branch of physical chemistry known as thermodynamics has been able to create a kind of accounting system, which doesn't worry about what the actual physical geometric process of transformation is. It merely keeps track of the energy relationships, on the assumption that no new energy is created or destroyed in a chemical change. Thus, the attractive bond between the electrons is thought of as containing a certain amount of energy. When a hydrocarbon or an alcohol burns, that is combines with oxygen in the air, these bonds are broken. The energy contained in them is now converted into heat. We don't know exactly how, but we can measure precisely how much.

Heat is measured in a unit called a calorie, which was developed out of the work of Antoine Lavoisier (1743-1793) in experiments on the specific heats of the ele-

FIGURE 1



ments. It is the amount of heat required to raise the temperature of one gram of water (at a temperature of 14.5°C) by one degree centigrade. Because this unit is so small, we often employ the kilocalorie, which is the amount of heat required to raise the temperature of one kilogram (2.2 pounds) of water by one degree centigrade. (Heat may also be measured by the unit of work known as the joule—there are 4.18 joules in a calorie—and the British Thermal Unit (Btu) which is equal to 252 calories). Using any of these units, we can determine the amount of heat produced when a certain quantity of alcohol, gasoline, coal, or any other combustible substance is burned.

The burning of one kilogram of gasoline produces about 10,500 kilocalories. Burning one kilogram of ethanol produces about 7,140 kilocalories, about 68% that of gasoline. Thus, a car running on pure ethanol will require a fuel tank that is almost half again larger than a gasoline-powered vehicle.¹

The Nuclear Domain

However, these relatively small differences are negligible in comparison to the heat released by nuclear processes. The fissioning of one gram of uranium releases about 2 million times as much heat as is produced by burning an equivalent weight of gasoline or oil, and 3 million times the heat produced in burning that weight of coal.

These enormous energies are not released from the chemical bonds. We are speaking now about a new physical domain. In the breaking apart of the uranium nucleus, we are releasing the much stronger forces which hold the nucleus together. Here, in a space about one-millionth the size of the whole atom, we find 92 charged particles, known as protons, each 1836 times heavier than the extra-nuclear electrons, which are the actors in chemical reactions. The protons are held together by some powerful agent, conventionally known as the strong force. In addition to these 92 protons, a nucleus of fissionable uranium-235 contains another 143 neutral particles about the same mass as the proton. When a uranium nucleus shatters, fragments containing these particles go flying apart at velocities up to one-tenth the speed of light.

For more than 60 years, since the operation of the first atomic pile on Dec. 2, 1942, we have known how to control this process. For over 50 years, we have harnessed the heat generated by the fission of the nucleus to produce electricity, safely and cheaply. With a complete fuel cycle which includes reprocessing, *there is no nuclear waste.*

1. Ethanol is able to deliver about the same amount of power as gasoline, because it requires less air to burn, and thus a greater portion of the gaseous mixture found in the cylinder on each stroke is made up of ethanol. Because of its air requirement, only about one third as much gasoline vapor as ethanol can fit into a cylinder of a given size.

Nuclear is a fully renewable energy resource. It is also only the beginning. For in 25 years we will begin to commercialize an even more powerful source of energy from the nucleus, fusion power.

With abundant nuclear power, we can virtually eliminate our dependence on imported oil, without having to cover the whole nation with ethanol cornfields and eliminate our food and animal production. Nuclear will provide the electricity to recharge the batteries for electric-powered transport on the trips of under 30 miles that make up the majority of vehicle use.

Nuclear will also generate the fuel to replace gasoline for use on longer trips. With the temperatures of 700-800 degrees, which can be produced by the new fourth generation of nuclear reactors, we can easily separate hydrogen from water, using electrolysis and even more efficient chemical separation methods. The hydrogen will power fuel cells to run electric motors, or be burned in internal combustion engines. Soon, as a result of advances in fast pulse laser machining processes, ceramic turbines, capable of operating at temperatures of 3,000 degrees and thus achieving efficiencies three times that of conventional engines, will be available.

Hydrogen Fuel

With a heat of combustion of 34,200 kilocalories per kilogram, hydrogen carries more than three times the energy content by weight of gasoline, and nearly five times that of ethanol. That is why it is used as rocket fuel. The leading problem in using hydrogen to power vehicles has been the cost of compressing it to a usable size. However, a variety of options are available and in the works to solve this problem.

The byproduct of the burning of hydrogen is water. The byproduct of the production of hydrogen from water is oxygen. Releasing oxygen to the atmosphere by the industrial production of hydrogen, will solve what is by far the most serious atmospheric environmental threat we face. That threat is not the release of carbon dioxide from combustion of carbonaceous fuels—for carbon dioxide enhances plant life, helps produce cloud cover, and has never been proven to increase the Earth's temperature. The real danger to be feared from the greatly expanded use of carbon-based fuels, is the depletion of atmospheric oxygen. Nuclear power and the hydrogen cycle will give the children of the next century the air they need to breathe.

As a growing fraction of intelligent young people are coming to recognize, the often sexually-tinged anti-nuclear obsessions of their parents' generation have contributed in large part to the new generation's lack of access to the levels of educational, healthcare, and employment opportunities which Americans had come to expect. It is time for those still embracing such fantasies to grow up and admit their past errors, or get out of the way. Woodstock, EarthDay, and the rest of those youthful hijinks are a thing of the far-distant past. The nation's future is at stake.

Brazil's 'Biofuel Republic' Is Murder!

by Cynthia R. Rush

Several times in the course of this year, Brazilian President Inácio Lula da Silva has boasted that his nation is about to become energy independent, through the development of biofuels based on sugar cane or other feedstocks derived from soy, castor beans, and sunflower seeds among others. "In the 21st Century, Brazil will be the biggest energy power on the planet without having to use nuclear energy," Lula announced with great fanfare on May 18, while inaugurating the Petrobrás experimental biodiesel facility in the state of Rio Grande do Norte. The new kind of biodiesel produced by Petrobrás, a semi-private oil firm once fully controlled by the state, constitutes "an energy revolution in the world," the Brazilian President trumpeted. "When it comes to energy, [developing nations] will have to come to us to ask how to do this the right way."

Lula was equally effusive in an article published in the London *Guardian* March 7, during his trip to Britain to meet with Prime Minister Tony Blair. Ethanol and biodiesel are the "key components" to the government's approach to the energy crisis, he said. "We are determined to 'plant the oil of the future.' I invite you to join us in our endeavors."

Big multinational agro-cartels such as Cargill or Archer Daniels Midland (ADM), and the synarchist financiers who stand behind them, no doubt welcomed Lula's statements. They have already invested big bucks in Brazil's biofuel scam, proclaiming it the antidote to high oil prices and environmental pollution caused by fossil fuels. Why, these predators proclaim, Brazil's successful ethanol industry, first launched in 1975 as the "Proálcool" program, could make Brazil the new Saudi Arabia of biofuels. It's a "biofuel Republic" in the making, they gush, blessed with an unhindered free market (ethanol production and marketing were deregulated in 1998-99, after two decades of generous subsidies and strict regulation), cheap labor, and endless acres of land available to expand the production of sugar cane, currently the cheapest and most widely used feedstock for Brazilian ethanol.

Globalization and Fascism

As *EIR's* Mark Sonnenblick first documented in a September 1979 article in *Fusion* magazine, the only beneficiaries of Brazil's biofuels program—then or now—are the financial oligarchs who see no distinction between man and beast. Sonnenblick, who passed away in 2004, pointed out that gasohol "appears 'efficient' only in a

technologically backward nation that plans to stay that way, or in a nation that is being deindustrialized and made backward." In 1979, the Brazilian gasohol program employed 500,000 workers who cut sugar cane by hand at daily wages of \$3, to produce a mere 70,000 barrels of alcohol per day. Today, there are over a million people employed in 320 sugar mills and 800 distilleries, mostly men under the age of 40, whose working conditions have scarcely improved.

Sonnenblick also revealed that Brazil's gasohol program, in the late 1970s had "so diverted croplands and labor resources from food production that the nation—the world's second-greatest agricultural exporter—is running into severe food shortages, high inflation for food prices, and the need to import more than \$1 billion in foodstuffs that could be cheaply produced at home." He quoted Cloud Cray of Midwest Solvents Corp, a highly efficient U.S. ethanol producer. Cray, at that time, told a seminar on Brazilian gasohol that the only way a U.S. gasohol program could reduce foreign oil imports would be to do what "Brazil does, bring your biomass to market in horse carts and burn it, or cut your forest down and bring them in, or use some other source of energy to convert this grain or agricultural source [into alcohol.]"

A passionate student of Brazil's history and economic development, Sonnenblick concluded in his 1979 article that "alcohol fuels do not 'work in Brazil.'" Nor do they today. For the better part of the 30 years since the 1975 launching of the Proálcool program, Brazil's economy and labor force have been ground up by the International Monetary Fund's murderous globalization policies. Those who claim that ethanol will transform this nation into "Brasilia-Arabia," are really proposing to send Brazil back to 16th Century when, as a colony of Portugal, it relied on slave labor to produce sugar and, as a reporter for the *Guardian* put it last March, "sugar plantation owners [became] so rich that they would send their dirty laundry to Portugal for cleaning."

A Hoax by Any Other Name

Brazil is the world's largest sugar producer and exporter. With 13 million acres under cultivation, it is expected to produce 30 million tons for the 2005/2006 harvest, one-half of which will go into ethanol production. It is also the world's leading ethanol producer and exporter, having distilled close to 4 billion gallons in 2004, thirty-seven percent of the world total. The state of Pernambuco in the impoverished Northeast, and São

Paulo state in the South, have historically been the sites of large-scale sugar cane production, although more recently it has expanded into the states of Rio de Janeiro, Minas Gerais, Espirito Santo, and Paraná. São Paulo produces 60% of the nation's sugar cane.

The public relations line on Brazil's biofuel success is that, even though ethanol shortages and cheap oil prices in the 1980s and 1990s made the ethanol-only cars produced almost worthless, the introduction of "flex-fuel" cars three years ago—they run on either gasoline or ethanol—combined with the astronomical hike in the oil price, opened the door to a biofuel "revolution."

Amory Lovins' Earth Policy Institute manically asserted in a June 2005 article that Brazil's biofuel industry could easily "produce enough ethanol to meet total domestic fuel demand by increasing the area used to grow sugarcane for alcohol from 6.6 million acres to 13.8 million acres . . . or by shifting *all* current sugarcane acreage to ethanol production."

But today's orgy of commodity price hyperinflation—the price of white, or refined sugar has increased 31% this year, and the price of raw sugar soared 87% over the past 12 months—underscores the precariousness of this scenario. Cane growers this year took advantage of the record-high sugar price to increase production of sugar *instead of ethanol*. The resulting supply shortages led to a 15% price hike for ethanol, and a drop in consumption that forced the government to reduce the percentage of ethanol in gasoline from 25% to 20%. It would only take a "surprise" like a drought in the main cane-growing regions to jeopardize Brazil's new status as the world's biofuel diva.

'Satanic Sugar'

More importantly, as the case of China demonstrates, a country with 70% of its population living in poverty cannot claim to be a model of "sustainable" economic development. This is true of Brazil. With the global economy shattering, any attempt to go ahead with the "biofuel republic" model, premised on the destruction of the labor force, rather than pursue the ambitious plan to build seven nuclear plants over the next 15 years (two of them in the impoverished Northeast) as announced by Science and Technology Minister Sergio Resende last March, will doom Brazil to the brutal *primitive accumulation* typical of the British colonial plantation model that has already imposed soy monoculture on large swaths of Brazil and neighboring Argentina.

Resende reflected the battle for Brazil's future in a May 5 opinion piece in *O Globo*, in which he stated that "the technological wager on renewable energies, such as wind and solar, to substitute fossil fuels, has not been found to be viable on a large scale. In every study, nuclear energy is confirmed as an alternative capable of meeting demand in the larger domain, cleanly and safely."

Absent the focus on technological development and training of skilled manpower, ever increasing tracts of land concentrated in the hands of the multinational food cartels or their local agents are displacing traditional

crops grown for domestic consumption. This increases deforestation and soil degradation, and drives millions of farmers off the land into the ranks of the urban unemployed. Small and medium-sized farms produce the majority of the food for Brazil's domestic consumption; yet foreign-run agribusiness is driving them out of farming. Over the past 15-20 years, according to one study, sugar cane expansion in the poorer areas of Pernambuco and the Northeast has driven 40,000 people out of small-scale agriculture, and into urban slums.

In a country with a huge infrastructure deficit—a USDA officer based in Brasilia reported that total train track hasn't grown in Brazil in 80 years—the biofuel "revolution" is literally squeezing the *bagasse* out of an impoverished rural work force. Their living conditions have not improved under Lula da Silva's free-market economic policy, in place since 2001. The sugar barons are laughing all the way to the bank.

The cost of Brazil's sugar production is the lowest in the world because of the "cheap and plentiful labor" of which financial vultures always brag. In the state of São Paulo, the cost of production is \$165 a ton, compared to \$700 per ton in European Union nations. According to a February 2006 study published by Brazil's Social Justice and Human Rights Network, workers in São Paulo state are paid 2.60 reais—about a dollar—per ton of cut cane. Workers are paid according to how much cane they can cut in a day, rather than any fixed wage. Silvio Donizetti Palvequeres, president of the farmworkers union in the important cane cutting region of Ribeirão Preto, told the *New York Times* that "you used to have to cut four tons a day, but now they want eight or ten, and if you can't make the quota, you'll be fired."

Workers who do the backbreaking work to cut ten, or even 12 tons per day can earn up to R\$800 a month, but then have to deduct R\$400 for food and usually miserable accommodations. Malnutrition and illiteracy plague most cane-cutting areas. Workers migrate from one region to another in search of work, leaving their families behind, as there is more than one harvest season. Where mechanization has been introduced, fewer workers are needed, as occurred during the 2001/2002 harvest in Pernambuco where 150,000 cutters lost their jobs. But since they have no alternative employment, workers are left to wander to other areas in search of work, or end up residing in urban slums or *favelas*. Job security is non-existent, and unionization becomes impossible, given the large number of transient or temporary workers. With good reason, sugar cane in Brazil's Northeast is called "Satanic sugar."

What a contrast to the optimistic and supportive attitude offered by Franklin Roosevelt's friend, Morris L. Cooke, who led a technical mission to Brazil in 1942, to evaluate what the country would need in order to industrialize. In his dedication of a condensed version of the mission's final three-volume study, "Brazil on the March: A Study in International Cooperation," Cooke wrote "May the policies and plans here discussed, bear plentiful fruit to satisfy human wants. In the forthcoming industrialization, may every lovely facet of Brazilian life be protected."

Bio-Cons, Neo-Greens: Shultz Boys' Corn Scam

by Christine Craig

George P. Shultz has been a busy man these days, even for an octagenarian oligarch. After basking in his bringing down Bretton Woods and creating the global floating-exchange-rate system in the 1970s, the Republican "fixer" personally chose Dick Cheney and the George W. Bush Cabinet in early 2000. A former JP Morgan banker with a publicly stated preference for "war" as the best means of achieving imperial objectives in the Mideast, Southwest Asia, and elsewhere, Shultz has recently taken the lead on regime change in Iran, as head of the Committee on the Present Danger and the closely allied Foundation for Defense of Democracies. With Felix Rohatyn, he has sponsored conferences pushing the galloping privatization of militaries. And lately, he's been sharing the pulpit with a fascinating circle of associates from both the left and right, on the curious subject of alternative energy sources—including such strange bedfellows as anti-nuke environmentalist Amory Lovins of the Rocky Mountain Institute, and ex-CIA director, imperial war-hawk R. James Woolsey.

One thing all Shultz's kindergarten, "left" and "right," now share: They're all pushing the ethanol bubble as a purported means to U.S. energy independence and national security. And they demand Congress, and the American taxpayers, throw tens of billions a year at it.

Indeed, in October 2005 alone, Shultz wrote a position paper with Woolsey for the Committee on the Present Danger, titled "Oil & Security." He then reworked the same story into an article with Woolsey for the journal *Mechanical Engineering*, "Petroleum Bomb," and then wrote a glowing introduction for Lovins' new book, *Winning the Oil Endgame*. In all these, Shultz ruled out nuclear power as an alternative to that old Mideast oil addiction—mighty strange, for a former CEO of Bechtel when it was bidding to bid on nuclear power contracts.

Why is Shultz hyping Amory Lovins' view of a nuclear-free future full of ethanol-guzzling flex-fuel cars and windmills supposedly producing hydrogen? Has Shultz gone senile? Or does this lunacy come naturally after decades of imposing technological apartheid, including by war, on other nations? Shultz's war-hawk friends, and his and Al Gore's environmentalist protégés, share a common vision for future—a world with fewer people and less technology, using fewer resources. Nuclear energy doesn't fit that vision. When these weird brothers get together, does the haze of ethyl alcohol

remind them that they all believe mankind is really just "smart biomass," and not fit for any Promethean fire like nuclear technology?

Gore and Gaffney Puff 'Corncob Pipes'

As early as 1974, the Ford Foundation published a lengthy policy report titled *A Time to Choose: America's Energy Future* in which they introduced a pathway termed Zero Energy Growth (ZEG), wherein major research and development would focus on ways to *conserve* energy through greater efficiency and recycling of wastes. New energy sources were envisioned to come from "solar technologies, energy from organic and urban wastes, and geothermal energy, which are the most promising." The report viewed nuclear power as an unproven and dangerous technology that needed to slow down and catch its breath until scientists and regulators figured out how to tame it and keep it from spreading to the Middle East and developing countries in general. They considered it "wrong-headed to concentrate only on options [breeder reactors and fusion power] that will take decades, and ignore options that are closer at hand and necessary to meet needs in this century."

But it was George Shultz's neo-conservative collaborators of decades—particularly that ultimate neo-con cold warrior Albert Wohlstetter of RAND, and Wohlstetter's students such as Richard Perle and Paul Wolfowitz—who were and are the primeval anti-nukes. Wohlstetter, from the 1950s to his death, fought to keep civilian nuclear power from spreading in the world, using the argument that it was dangerous and economically unfeasible (see "The Neo-Cons, Not Carter, Killed Nuclear Energy," *EIR* March 24). From such as Wohlstetter, the Amory Lovinses, Ralph Naders, and Barry Commoners took their case studies in which mankind is a bumbling tinkerer, unwittingly throwing a wrench into the natural ecosystem with his technological innovations.

Boondoggle

One of the boondoggles to have arisen in the vacuum left by the smothering of nuclear energy in the United States in the 1980s, has been the corn/sugarcane ethanol fuel subsidy swindle, perpetrated on gullible taxpayers by agricultural cartels such as Cargill and Archer Daniels Midland (see p. 10). In recent years it seems that everybody wants to get on the bandwagon. The major push has

been for ethanol and related biofuels to replace oil. From the left, it is fueled by hysteria about greenhouse gases and climate change from burning fossil fuels. From the right, comes the battle cry for independence from Middle Eastern oil. Of course, nuclear power would solve both of these problems at the same time with ease, while powering an industrial renaissance, but that is not what either side wants. They want soft energies with a small footprint, and no major new technology or capital expenses. They want solutions that emphasize conservation, not development.

In 2006, it is neo-cons allied with Shultz and Dick Cheney who are the leading think-tank propagandists for ethanol and nastier wastes as "American energy independence." Environmentalists and Democrats are joining them in a truly smelly alliance.

The major front organization for both sides is called the Set America Free Coalition, pushing George Shultz's and James Woolsey's line of independence from foreign oil, through domestic production of cellulosic ethanol and biodiesel for transportation. The Set America Free Coalition, started by the Institute for the Analysis of Global Security, includes leading "regime change" warhawks and neo-cons such as Woolsey, Perle, Clifford May, Frank Gaffney, Meyrav Wurmser, and Daniel Pipes.

The Coalition includes such general right-wing non-profit institutions as: the Foundation for the Defense of Democracies, Hudson Institute, Committee on the Present Danger, Center for Security Policy, National Defense Council Foundation, American Values, and American Jewish Committee. They all act as if they were taking an "ethanol bubble break" from their normal shrill pursuits of wars against "rogue states."

The Left Cheek of the Ethole

But the *same* ethanol-pushing Coalition also includes the American Council on Renewable Energy; the Natural Resources Defense Council (NRDC); and the Apollo Alliance.

The Apollo Alliance is a joint project of the Institute for America's Future and the Center on Wisconsin Strategy, and is a huge grouping of liberal environmentalists causes, including Greenpeace, the Sierra Club, Americans for Democratic Action, and Rainbow Coalition. Various unions such as the International Association of Machinists and United Automobile Workers are represented. Its funding comes from groups



Alan Yue

'The Cornheads': Mr. Gore (right) and Mr. Preventive War: Why are they all for ethanol?

like the Ford Foundation and Rockefeller Financial Services.

Two rotten Democrats prominent in the fetid mess are Al Gore and Sen. Joe Lieberman (who sits on the Committee on the Present Danger and the Foundation for Defense of Democracies with other neo-cons)—the turncoats who tried to destroy President Clinton as well as the Democratic Party. As the Democratic Leadership Council (DLC), Lieberman and Gore were and are funded in this treachery by the extreme-right Smith-Richardson Foundation of CIA "secret wars" fame.

Gore's sensationalist global warming movie, "An Inconvenient Truth," is contributing \$500,000 plus 5% of ticket sales to Gore's new group, Alliance for Climate Protection, headed by former Reagan EPA chief Lee Thomas. Its stated aim is to combine conservatives with labor groups for eco-friendly legislation.

Gore is on the stump all over the country, repeating NASA scientist James Hansen's scare-line that within 10 years, the greenhouse effect is going to be unstoppable. In a recent interview, Gore panned nuclear power for exactly the same bogus economic/security reasons as Wohlstetter did 50 years ago, then waxed poetic on cellulosic ethanol as the salvation of the world: "I think it is going to be a huge new source of energy, particularly for the transportation sector. . . . You're going to see new processes that utilize waste as the source of energy, so there's no petroleum consumed in the process. . . . You may also begin to see a new generation of fuel cells that run on cellulosic ethanol, where you can grow your own electricity. I think it's going to play a huge role."

So both bio-cons and neo-greens are waging this insane war to bury nuclear power with subsidized switchgrass and cow pies, shuffling backwards into the Third World.

ADM, Cargill— The Enron and Halliburton Of the Ethanol Swindle

by Marcia Merry Baker

Before there was Halliburton or Enron, there was the food cartel—the leaders of the pack on today's ethanol bubble and swindles. For decades, Archer Daniels Midland (ADM) and Cargill, leading cartel globalizers, have laid the basis for the disastrous energy “technological downshift” into ethanol and biofuels. Right from the 1970s start-up of corn-based ethanol (then called “gasohol”) for the U.S. “market”—as the false energy alternative to nuclear power—these two companies accounted for 70% of the new biofuel production capacity at that time, and have dominated every policy turn since.

Now, although their share of U.S. ethanol output may be “only 24%,” because of the bubble-boom of other new capacity coming on line in recent months, ADM and Cargill are still preeminent internationally in the promotion of biodiesel, ethanol, and other biofuels; as they are controllers of vast worldwide patent rights over seeds for bio-inputs of corn, soy, and other crops and agriculture wastes. These two firms, with a few others, dominate food processing globally. Along the way, they have raked in billions of dollars of Federal subsidies directly for ethanol—but also through Food for Peace and other commodity programs—and through outright illegal operations, for which they have been convicted or negotiated plea bargains.

In addition, these two companies, and a select few others, have come to dominate agriculture-related transportation and storage, as well as processing infrastructure, so they have a lock on food and farm practices—with or without the biofuels mania.

It is critical to understand the pedigree and record of these entities, in order to bust up the “romance of biofuels” now spreading its haze of quick-money dreams.

Today's manic biofuels bubble is not the culmination of a natural evolution toward “alternative energy,” but of schemes put into effect deliberately, by networks of financial circles, acting against national interests, for their own control and gain. In fact, the origin and practices of ADM and Cargill trace back directly to the centuries-old

“merchants of grain,” based in Europe, and interconnected with financial syndicates notorious in the 1930s and 1940s period for their backing of fascist economics, or as it was called, synarchism.

Here we provide a short timeline of ADM and Cargill's recent history, and need-to-know highlights of their operations, both general and focussed on biofuels.

ADM, Cargill—Globalism

ADM, a publicly-traded company, headquartered in Decatur, Ill., is today the world's largest processor of corn, soybeans, wheat, and other commodities, operating in 180 countries, with a workforce of 30,000. ADM was founded by former Cargill executive Dwayne Andreas in 1965.

Cargill, privately held, is headquartered in Minnetonka, Minn., and operates in 59 countries, with a workforce of 124,000, producing directly or in various forms of partnership, commodities ranging from salt to steel, as well as agriculture products, fertilizer, energy, and futures trading.

The degree of dominance held by these two companies, and related firms in various agriculture commodity cartels, is dramatic. Look at their rank in market share in the United States, for the following selected items. These statistics name the top four companies, and the ratio of concentration they hold, as of early 2005. (From ongoing studies by Bill Heffernan et al, University of Missouri; see National Farmers Union, www.nfu.org).

Flour Milling: The top four firms account for 63% of capacity; Cargill is first, and ADM second.

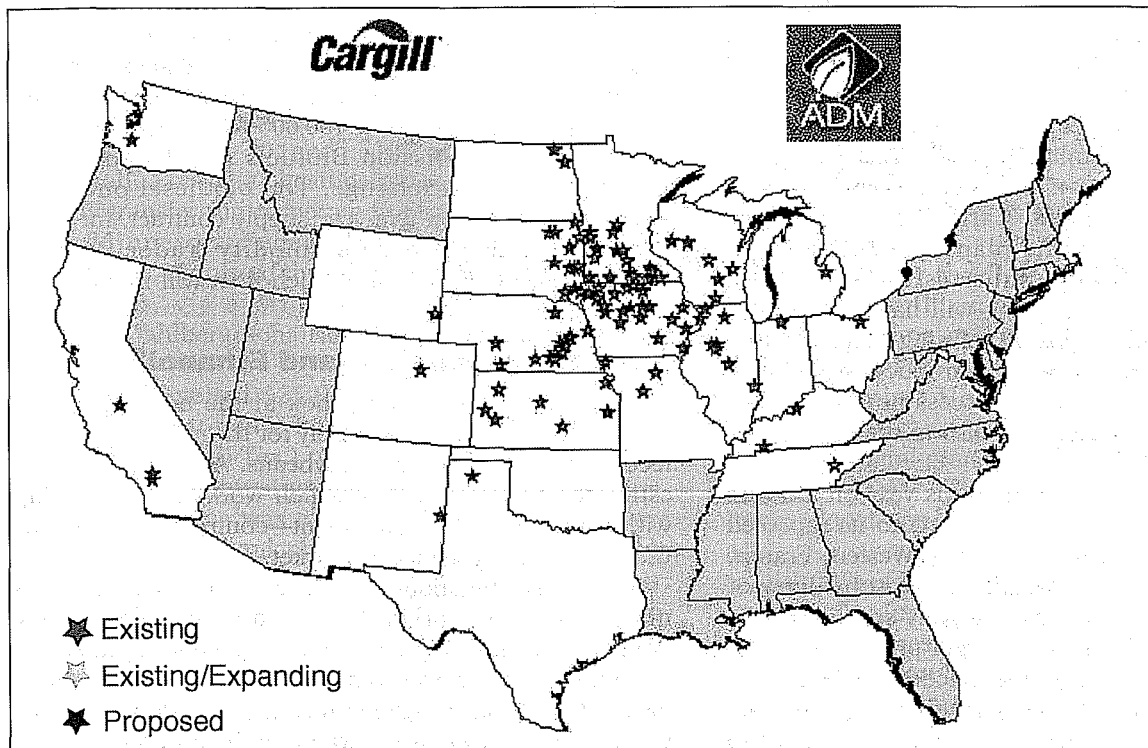
Soybean Crushing: The top three firms account for 71% of capacity; ADM is first, Cargill is third; (Bunge is second).

Animal Feed Production: The top four firms account for 34% of output; Cargill ranks second, and ADM third.

Beef Packing: The top four firms control 84% of production; Cargill ranks second.

Turkey Processing: The top four firms control 51% of production; Cargill ranks first.

U.S. Ethanol Manufacturing Locations



The location is shown here of the 95 ethanol refineries in operation in 2005. Today there are 97 ethanol bio-refineries in operation, with 35 under construction, and nine expansions underway. The total current capacity is 4.486 billion gallons a year.

Internationally, these companies exert corresponding dominance, with varying patterns from country to country. The most striking part of the global picture, has been the rapid spread of their control operations in South America, centered in Brazil, Argentina, Paraguay, and Uruguay (see p. 6).

ADM, Cargill—biofuels

On biofuels in the United States, ADM and Cargill were the ground-floor ethanol producers as of the 1970s. Over that decade, numbers of acts were passed to subsidize ethanol producers, in the name of “energy independence,” as the oil price spikes hit in 1974 and 1978, and as nuclear power came under assault. In 1977, Congress passed a law mandating the U.S. Department of Agriculture to issue \$60 million in guaranteed loans for ethanol distilleries. States likewise issued tax and loan deals. The Carter Administration exempted gasoline containing 10% ethanol from the 4-cents-per-gallon Federal fuel tax, etc. In the course of this, the mother-of-all subsidies was introduced—the 50-cents Federal tax exemption for every gallon of ethanol produced.

ADM and Cargill have raked it in. In addition, there were special deals and windfalls. In 1986, the Reagan Administration Agriculture Secretary Richard Lyng announced a new program to give away \$29 million worth of corn to ADM distilleries, in the name of assistance to ethanol production at a time of corn surpluses.

Over the past 20 years, Cargill and ADM together, along with the next two producers, accounted for major percentages of all U.S. ethanol output:

1987—73%
1995—73%
1999—67%
2002—49%
2005—41%
2006—34%

The decline of production share during the 2000s, does not at all signify the waning of ADM and Cargill’s role, but rather the rapid growth of the biofuels bubble under the Bush Administration. There has been a rush of investors, as well as farmer-owned cooperatives, lured into an “easy money” corn ethanol market.

Ethanol production nationally went from 175 millions of gallons a year in 1980, up to 900 millions in 1990; to 1.630 billion in 2000; and reached 3.904 billion gallons a year in 2005 (or even higher, up to 4.264 billion, depending on the source).

Today, the percentage of U.S. ethanol production held by ADM alone is 24%. ADM has seven ethanol plants, in five states, with a combined capacity of 1.070 billion gallons a year.

The new CEO for ADM, announced on May 5, will be a former Chevron Oil Vice President, Patricia Woertz. She was in charge of refining, marketing, and trading oil for Chevron. Woertz has proclaimed that she intends to use the “oil company approach” at ADM. Currently under construction are two new ADM biodiesel plants, one in Missouri and another in North Dakota.

Cargill, for its part, is on a global biodiesel binge. Just in the last six months, here are new operations announced:

England: Cargill has a 25% shareholding in

Greenery Biofuels Ltd., otherwise owned by parent company Greenery Fuels—the leading British bio-energy group; and Tesco, the supermarket giant. Tesco, the foremost biofuel retailer in the UK, offers biofuel blends at more than 40% of its gas stations. Among the planned Cargill/Greenery Biofuels projects is a biodiesel facility to be built at Cargill's existing crushing plant in Liverpool, on the Mersey River—using international feedstock input. Cargill's February 2006 press release proclaimed its plans, "With biodiesel plants on the east coast Humber estuary and West Coast Mersey estuary, Greenery will have a presence in two of the most important oil refining regions in the U.K. Having world class biodiesel production facilities on both coasts gives unmatched access not only to the raw materials for production but also to the fuel supply chain."

France: Construction is starting this year on Cargill's new biodiesel facility, to be located next to its rapeseed crushing plant at the port of Montoir in Western France. This is a joint venture of Cargill with a subsidiary of Sofiproteol, a financial holding company specializing in oilseed use and marketing. The Cargill project comes in the wake of the French government action in September 2005, to promote and advance biofuels in the country. Quota allocations are given out by the government to selected operations, to implement the government-set goal of having 5.75% of biofuels in fuel by 2008; 7% by 2010 and 10% in 2015.

The 350,000 tons of by-product meal to be produced at Montoir will go into Cargill's animal feed marketing. The Montoir site is just part of Cargill's existing nationwide operations in France, which include a site at St. Nazaire, where the volume of Cargill's crush of sunflower seed represents more than half of all France's annual production. A Cargill plant already in Brest will focus on rapeseed and soy crushing for biodiesel and livestock feed.

Germany: In March this year, Cargill held a groundbreaking in Frankfurt, for its new biodiesel plant in the Höchst Industrial Park, intended to process rapeseed oil and other vegetable oil feedstocks, to reach 250,000 met-

ric tons of capacity and utilize ship, rail, or road tanker transportation.

Malaysia: Here, Cargill Palm Products Sdn Bhd will supply crude palm oil, as the primary feedstock in a new five-year contract, for a just-announced biodiesel plant. The facility, designed for a 100,000 ton annual capacity, will be done by Mission Biofuels Ltd, listed on the Australian stock exchange. The biodiesel output is already booked for a five-year supply contract, for shipment to Austria-based commodity trader Godiver Handelsgesellschaft GmbH, which then will market it to Germany.

Lock on Feedstock—and Ethanol?

To cap off this picture, look at the hold ADM and Cargill have over the seed supply for the major bio-energy feedstock crops, corn and soybeans. As of 2004, it was estimated that Monsanto—which works in partnership with Cargill and Pioneer/Dupont—controlled 60% of the U.S. corn and soybean seed market.

This has come about from a series of crucial changes made in U.S. and world patent law over the past 20 years, granting sweeping rights over food genetics seed-stocks to an interlock of cartel commodity and chemical companies. For example, Cargill or ADM—which dominate soybean and corn processing, whether for feed, food or bio-energy—can decree that they will accept only "Round-Up Ready" soybeans, the Monsanto seed, and farmers have no recourse.

The control side of this is underscored by some recent announcements of new Cargill/Monsanto ethanol production methods associated with ethanol designer-seeds.

In Eddyville, Iowa, Renessen LLC, the joint Cargill/Monsanto biotech company, announced in January that it will test a new production process for ethanol, using a new biotech seed, with an oil-rich trait designed for biodiesel, and pitched as a high-nutrient livestock feed. In February, the Agriculture Department granted marketing approval for the new seed, a high-lysine corn (LY038), to be marketed under the usual strict patent controls, as "Mavera High Value Corn with Lysine."

DOCUMENTATION

ADM/Cargill Record of Global Corruption

1945-1952: Dwayne Andreas, born in Illinois in 1918, worked for Cargill, starting as general plant manager, ending as vice president in charge of soybean and linseed oil. His assistant James R. Randall (hired at Cargill in 1948), later became president of ADM.

1945: Andreas met Hubert Humphrey, then mayor of Minneapolis, and elected to the U.S. Senate in 1948. Their collaboration involved some 85 world trips; Humphrey was godfather to Dwayne's son, Michael, later

(1999) sent to jail for international price-fixing as chairman of ADM.

1952: Andreas made his first trip to the Soviet Union, as 34-year-old vice president sales representative for Cargill, Inc., one of few U.S. citizens to get visas to the U.S.S.R.

1954: The Food for Peace law, PL-480, was enacted. Humphrey and Andreas travelled to Poland and to the Vatican, as a showcase bipartisan move with the

Eisenhower Administration, to pave the way for paying Cargill and other cartel firms to ship food to the East Bloc.

1965: Archer Daniels Midland was formed, merging assets of the Archer, Daniels, and Andreas families.

1966: Dwayne Andreas became president of ADM.

1968: Andreas "loaned" \$100,000 to Humphrey's Democratic Presidential campaign, and was charged with illegally transferring corporate funds for election purposes. A Minnesota Federal judge, a close friend of Humphrey's, dismissed the case.

Andreas, via a Minneapolis business partner, Kenneth Dahlberg—chairman of Minnesota branch of Nixon's Committee to Re-Elect the President, or CREEP—funnelled \$25,000, which ended up in the account of Watergate burglar Bernard Barker. Rep. Wright Patman (D-Tex.), whose Banking and Currency Committee was investigating the case, expressed concern that Andreas was one of the investors who were granted a Federal bank charter in a Minneapolis suburb. Dahlberg was among the five applicants for the charter. After Nixon's resignation in 1974, \$100,000 in cash, provided directly by Andreas, was found in the White House safe. Andreas got his money back in full, and reportedly, was able to successfully dodge subpoenas from Sen. Sam Ervin's impeachment hearings, by living in Europe.

1971: Michael Andreas joined ADM at age 23, having been trained in speculation by Cargill's Julius Hendel.

1973: Dwayne Andreas's nephew, Martin Andreas, became ADM's chief salesman for corn sweeteners.

1974: ADM entered into a price-fixing scheme, overcharging the U.S. government by \$19 million in sales of soy-fortified food to the Food for Peace program. ADM was convicted in both criminal and civil suits, but evaded repaying the government its share of \$19 million.

1976: ADM pled no contest to Federal charges of systematically short-weighting and misgrading Federally subsidized grain shipped abroad. ADM lost no contracts, and continued all its shipments.

ADM/Cargill started up ethanol production at this time, lobbying for Federal subsidy for the non-food use of crops, because Andreas needed a way to dispose of a huge corn syrup excess.

1977: The newly enacted Federal sugar price support netted ADM millions of dollars by preventing sweetener prices from dropping. The staff author of the law, David Gartner, was a top aide to Humphrey; ADM bribed Gartner with a contribution of \$72,000 worth of ADM stock to a trust fund established for Gartner and his family.

1978: Gartner was appointed to the Commodity Futures Trading Commission. The story of ADM's bribe to him broke into the news, but Gartner refused to resign

or to pay ADM back.

1984: President Reagan appointed Andreas to chair a task force on private initiative; Andreas recommended creating an Economic Security Council, which became the Economic Policy Council. The joke around Washington was: "Ask not what you can do for your country; ask what your government can do for ADM."

1990: The Clean Air Act was a boon for ethanol output, with Cargill and ADM owning over 70% of the capacity.

1990s: Under the U.S.-Canada Free Trade Accord, ADM and Cargill extended their control and repositioned their operations in North America. Dwayne Andreas joined the board of the British intelligence publishing empire, Hollinger Corp., run by Canadian Conrad Black.

1994: Federal grand juries took anti-trust evidence on Cargill, ADM, Tate & Lyle (U.K.), and CPC International—on price and supply fixing of lysine, citric acid, corn sweeteners, and starch. These four companies control 74% of U.S. wet corn milling.

1995: On June 27, the FBI raided ADM executive offices and homes in Decatur, Ill.

1996: In October, top ADM executives Michael Andreas and Terrence Wilson left the company. On Oct. 14, ADM pled guilty and agreed to pay fines of \$100 million for criminal price-fixing of lysine and citric acid.

1998: Michael Andreas and Terrence Wilson were convicted of criminal price fixing. Sentencing was scheduled for Feb. 26, 1999.

1999: Michael Andreas was sent to jail. Later, G. Allen Andreas, cousin of Michael Andreas, took over as Chairman of ADM.

2003: Cargill's Chairman and CEO Warren Staley was named in February to the President's Export Council, to represent food and agriculture among the 28 private sector executives.

2004: Cargill agreed on March 12 to settle \$24 million in charges against it by 18 plaintiff food firms, from 1995, for conspiring with ADM et al, to fix sweetener prices.

2006: Cargill pushed its international bio-diesel operations with new plants under way in France, England, Malaysia, Germany, and elsewhere. Cargill's workforce numbers 124,000 in 59 countries.

ADM commands the world's largest processing capacity for corn, soybeans, and wheat; operates in 180 countries, with a 30,000 person workforce. ADM operates 170 processing plants, 300 grain elevators, 10,000 rail cars, 15,000 trucks, and 2,000 river barges.

In May, former Chevron Vice President Patricia Woertz became President and CEO of ADM; G. Allen Andreas, Interim CEO, stayed on as Chairman. Woertz stressed her intent to use her experience to operate ADM like a petroleum-marketing company.

Nebraska Farm Report: Biofuels Mania

Don Eret, a farmer and former state legislator in Dorchester, Nebraska, described the scene in his state to *EIR* on May 24—Nebraska being the third-biggest corn state in the country, with 11 ethanol plants operating, and more under construction. Eight of these plants are in Nebraska's central/eastern region, surrounding Eret's farm in Saline County.

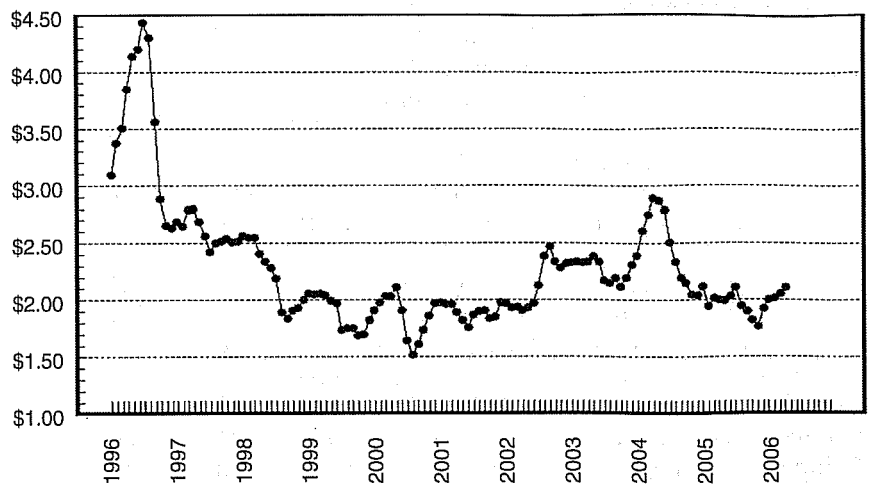
Eret points out how the over-stretched transportation base is straining to service the ethanol mania. Since the rail grid has been drastically taken down, by over a third in the last 30 years, the pressure is heavy on the diminished rail system, and on trucking, to shunt the corn around to the ethanol plants. The local farm-cooperative's truck fleet of 25 semis, constantly hauls grain—using diesel fuel. Eret lives along the Burlington-Northern main line, and sees two 120-car unit trains loaded out each week (each takes 12-15 hours to load). This shipping includes destinations for export. But cross-hauling is now increasing just to serve the expanding number of biofuel plants.

Then, there is the added pressure to ship and use the corn mash by-product of ethanol production, for livestock feed. The mash can be used as is, or dried and stored. But to save the energy costs involved in feed processing and storage, the ethanol plants try to contract with feedlots, to ship out the mash from the distillery, direct to the feeders, before it goes bad after a couple days. Cargill ships out mash from its Blair, Nebraska plant (near Omaha), on a 120-car unit train direct to Texas, by express rail, within 48 hours of production.

In the farm states, Eret says, one sees real mania being whipped up. Nebraska Sen. Ben Nelson (D), campaigning for re-election, "is fighting for his political life, has made biofuels almost his 100% issue." And it is rumored that the reactivated American Agriculture Movement—which coordinated the 1979 Tractorcade of 5,000 tractors/50,000 farmers to Washington D.C. to protest farm policy, will again call for a national tractorcade—for biomass! Eret himself drove in the 1979 Tractorcade from Nebraska.

But the popular media report that there is a big farmer involvement in, or benefit from, all the ethanol expansion, is a misconception. Eret reported the example of a big push now underway for a new ethanol plant in Fairmont, Nebraska; organizers are attempting to restrict it to local farmer investors. However, not many farmers—just like non-farmers in the 80% lower income brackets—have the funds sitting around to put into any venture at all. Some are attempting to take out loans, using their farms as collateral, with all the risk that that involves. Some are cadging relatives. Desperation is rampant, in

Corn Prices Received, U.S. (Per Bushel)



the form of visions of a "pot of gold."

The myth has been promoted that ethanol will drive up corn prices, helping corn growers. In fact, the math of ethanol plants is—take note, if you are a farmer investor—that if corn prices rise significantly, then the profits of your ethanol distilleries vaporize.

Today, the U.S. price of corn is running between \$2.13 and \$2.50 a bushel depending on location, delivery date, etc. But the parity price (to meet the farmer's cost of production plus fair profit) is \$7.78 (April 2006, U.S. Department of Agriculture). Parity is the combined expenses of seed, fuel, cultivation, fertilizer, labor, and a modest profit to the farmer in producing that crop, in order to guarantee the existence of the family farm sector output potential (soil fertility, experienced farmers, capitalized operations, etc.) for the future. Keeping corn prices paid to the farmer low, ensures great profits to ADM, Cargill, and the other cartel companies, and to the small handful of farmer investors in ethanol production, now seeing windfall profits.

In 1977, for producing a bushel of corn, the farmer received \$1.98, which was 57% of parity at that time. In 2006, in January, for a bushel of corn, the farmer still received \$1.99, now 26% of parity.

That farm prices are easily manipulated for political purposes on the futures markets, is clearly shown in the figure, tracking the corn price. In 1996, a radical free-market farm law, the Freedom to Farm Act, was proposed. During the time of Congressional debate, passage, and President Clinton's signing of the bill in April 1996, the price of corn mysteriously hovered in the range of \$4 a bushel. The cry went up: "See how great the prices can be on the free market!" After the bill was signed, the price, just as mysteriously, fell, never to reach that level again. So it could easily be made to seem with ethanol—for a short while.