Central Ohio Group Issues

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**Environmental Organizations Must Fight Bush’s Ethanol Surge**


By Anita Laurin, Coordinator, Central Ohio Relocalization Effort [and member of the Central Ohio Sierra Club Political Action Committee]

Corn-based ethanol has been at the center of a well-funded misinformation campaign by the Bush Administration and agribusiness giant Archer Daniels Midland.

**Environmental Effects of Ethanol Production**

The negative environmental impacts of the ethanol cycle, from preparing the soil to the exhaust from vehicles, are large. The way most corn is grown in the US depletes nutrients in the soil and uses large amounts of water. The dry milling ethanol fermentation process uses approximately 4-6 gallons of water for each gallon of ethanol produced and the wet milling process requires 8-9.5 gallons of water for each gallon of ethanol.

Corn subsidies, which actually help undermine the family farmer, are a high priority in Farm Bill 2007, which is currently being crafted by the Agriculture Committees of the House and Senate. To maximize the subsidies agribusiness receives, corn producers have gone to mono-cropping, which makes the crop more susceptible to insects and diseases. To counter this, they apply large amounts of fertilizers and pesticides. Although atrazine has been banned in Europe, it is the most commonly used pesticide by US corn producers. Soil erosion from growing corn (the spaces between corn plants are bare ground) creates runoff into streams. Chemicals also have seeped into the drinking water in many communities. EPA has established a “safe” atrazine level in drinking water, but tests have discovered 75 times that amount in some Midwestern streams. Short-term exposure to levels that exceed EPA standards can cause congestion of heart, lungs and kidneys; low blood pressure; muscle spasms; weight loss; and damage to adrenal glands. Long-term exposure has the potential for cardiovascular damage, retinal and muscle degeneration and cancer. Fertilizers and chemicals used in US corn production have actually created a 3000-square-mile dead zone in the Gulf of Mexico.

Ethanol proponents now say that there is not enough corn to “feed” ethanol plants and they want to put some of the 37 million acres enrolled in the Conservation Reserve Program back into crop production. The Conservation Reserve Program was designed to reduce soil erosion, protect the nation’s ability to produce food and fiber, reduce sedimentation in streams and lakes, improve water quality, establish wildlife habitat, and enhance forest and wetland resources. The program encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as grasses, wildlife plantings, and trees. Fortunately, groups like the Audubon Society are aware of this and are opposing taking land out of the Conservation Reserve Program.

Most environmentalists are aware of the damage done by oil and natural gas drilling. Unfortunately, ethanol production is highly dependent on natural gas for making fertilizer for power generation for refineries. North America is now facing a natural gas crisis, and drilling is increasing in environmentally sensitive regions as natural gas from easy sites has already been extracted. The Bush Administration plans on weakening air pollution standards so they can power ethanol refineries with coal. This has already started in Iowa, and will only add to our global warming woes.

**Doubtful Statistics and Ethanol Promotion**

Proponents say that ethanol fuel will decrease carbon dioxide (CO2) emissions. However, there is reason to doubt that claim. In a recent article one finds the following, “A flex-fuel car burning E85 (a fuel that is 85% ethanol and 15% gasoline) has different levels of tailpipe pollutants, but it’s not dramatically better overall than gasoline exhaust. E85’s output of CO2 — a greenhouse gas — is again comparable to that of gasoline, at the car’s tailpipe. The theoretical benefit is that the carbon in ethanol comes from corn which, in a sense, recycle the carbon. In comparison, petroleum is carbon that was trapped underground for millions of years before being released into the ecosystem. The National Ethanol Vehicle Coalition says that E85 reduces CO2 by about 36-42 percent versus gas. Still, scientists point out that petroleum is used to plant, fertilize, harvest, process and transport E85.”
The only organizations which claim that E85 reduces CO by 36-42 percent are ethanol groups like the Renewable Fuels Association, a trade organization funded by the Archer Daniels Midland, the world’s largest agribusiness firm. Other independent studies estimate the savings to be only 11-14%.

Environmentalists need to be extremely concerned about E85. In a 2006 independent study from the University of Minnesota, published in the Proceedings of the National Academy of Sciences, researchers concluded that the total life-cycle emissions of five major air pollutants are higher with E85 than with gasoline per unit of energy released on combustion. When Southern California began using increased ethanol blends in their cars, the ozone level shot up and exceeded acceptable levels.

The entire problem is exacerbated by bad information put out by government agencies over at least the past six (in some cases longer) in regard to the connection between global warming and corn-based ethanol. Because of this misinformation and grants for ethanol promotion, some environmental organizations are incorporating ethanol promotion into their policies and strategies.

Environmental organizations are being told by the Bush Administration and the Ag sponsored group 25x25 (environmental organizations have endorsed this effort) that corn ethanol is only a temporary solution and that we “move quickly” into cellulosic ethanol. Recently, an independent study for the US Dept. of Defense concluded that “there are no proven economically viable ways of producing ethanol from plants with more cellulose such as switch grass”. The Bush Administration claims that cellulosic ethanol will be ready by 2012. However, the 25x25 Action Plan clearly states their cellulosic goal as “Producing 250 million gallons of cellulosic ethanol by 2012 as called for in the Renewable Fuels Standard”. Corn-based ethanol production already exceeds 4 billion gallons a year. The hoped-for cellulosic ethanol production only represents 62% of a one day supply of fuel in the US, for we consume 00 million gallons of gasoline each day.

Bad science from the Bush Administration has become so serious that the Union of Concerned Scientists has launched a campaign to fight it.

Summary

American taxpayers are currently subsidizing ethanol at the rate of 51 cents a gallon.

Congress needs to eliminate these subsidies. There is enormous pressure on Congress to keep these subsidies by agribusiness, agribusiness trade organizations and corn-state politicians.

Corn-based ethanol is not a solution to our dependence on oil. Dr. T. Patzek at UC Berkeley has said, “The low energy conversion efficiency coupled with the energy intensive-process to produce corn ethanol, results in an overall process that yields no significant net energy benefit compared to corn-derived ethanol.” In other words, it takes as much energy to make it as it produces.

The idea of a “renewable” source of energy sounds good at first pass. In the final analysis, though, ethanol plants that are being built now will make large publicly-subsidized profits for those initiating the plans, but will soon be a bust. Our dwindling resources will be put into an industry that has no future.

Solutions

The 2006 study High Speed Rail and Green-house Gas Emissions in the US concluded that a comprehensive high-speed passenger rail system could eliminate up to 29 million automobile trips.

Another study reported that public transportation usage reduces gasoline consumption by 1.4 billion gallons each year. If Americans had more public transportation choices, these gasoline savings would at least double to 2.8 billion gallons each year.

While biofuels may have a role powering farm equipment on a local level, keeping our destructive car culture running on them is counterproductive. The cleanest, cheapest and most readily available way out of our predicament is conservation and efficiency. Better solutions than corn ethanol include:

- Promoting public transportation with an emphasis on rail and the re-establishment of a national passenger rail system
- Supporting the restoration of family farms by buying locally-produced and/or organic foods and asking our federal representatives to support the Food From Family Farms Act
- Encouraging ride sharing and telecommuting
- Promoting increased efficiency AND conservation
- Asking Congress to reduce the speed limit to 55 mph

1 www.americanchronicle.com/articles/viewArticle.asp?articleID=22181

For further reading: How Sustainable Agriculture Can Address the Environmental and Human Health Harms of Industrial Agriculture (http://www.ehponline.org/members/2002/110p445-456horrigan/horrigan-full.html)

Read Anita Laurin’s original article with references at: http://www.energybulletin.net/node/25558

Editorial Note: The Ohio Sierra Club testified at air permit hearings for proposed ethanol plants in Newark and Lancaster during the second week in April. We opposed the air permit on several grounds. The Ohio Sierra Club (and Attorney Rick Sahli) also sent a letter to Governor Strickland expressing their concerns regarding The Rush for Corn-Based Ethanol in Ohio in May 2007. (http://ohio.sierraclub.org/issues/documents/5_27_07EthanolILtr.pdf)
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