

Bethel College Mennonite Church Creation Care Committee

Creation Stewardship Notes # 21, February 2007

The Biofuel Illusion

Julia Olmstead

There's been a lot of talk lately about the promise of biofuels — liquid fuels like ethanol and biodiesel made from plants — to reduce our dependence on oil. Even President Bush beat the biofuel drum in his last State of the Union speech.

Fuel from plants? Sounds pretty good. But before you rush out to buy an E-85 pickup, consider:

— The United States annually consumes more fossil and nuclear energy than all the energy produced in a year by the country's plant life, including forests and that used for food and fiber, according to figures from the U.S. Department of Energy and David Pimentel, a Cornell University researcher.

— To produce enough corn-based ethanol to meet current U.S. demand for automotive gasoline, we would need to nearly double the amount of land used for harvested crops, plant all of it in corn, year after year, and not eat any of it. Even a greener fuel source like the switch grass President Bush mentioned, which requires fewer petroleum-based inputs than corn and reduces topsoil losses by growing back each year, could provide only a small fraction of the energy we demand.

— The corn and soybeans that make ethanol and biodiesel take huge quantities of fossil fuel for farm machinery, pesticides and fertilizer. Much of it comes from foreign sources, including some that may not be dependable, such as Russia and countries in the Middle East.

— Corn and soybean production as practiced in the Midwest is ecologically unsustainable. Its effects include massive topsoil erosion, pollution of surface and groundwater with pesticides, and fertilizer runoff that travels down the Mississippi River to deplete oxygen and life from a New Jersey-size portion of the Gulf of Mexico.

— Improving fuel efficiency in cars by just 1 mile per gallon — a gain possible with proper tire inflation — would cut fuel consumption equal to the total amount of ethanol federally mandated for production in 2012.

Rather than chase phantom substitutes for fossil fuels, we should focus on what can immediately both slow our contribution to global climate change and reduce our dependence on oil and other fossil fuels: cutting energy use.

Let's be bold. Let's raise the tax on gasoline to encourage consumers to buy fuel-efficient cars and trucks. We can use the proceeds to fund research and subsidies for truly sustainable energy.

Let's raise energy efficiency standards for vehicles, appliances, industries and new buildings.

Let's employ new land-use rules and tax incentives to discourage suburban sprawl and encourage dense, mixed-use development that puts workplaces, retail stores and homes within walking distance of each other. Let's better fund mass transit.

Let's switch the billions we now spend on ethanol subsidies to development of truly sustainable energy technologies.

And why not spend money to make on-the-shelf technology like hybrid cars more affordable? Fuel-efficient hybrids aren't the final solution, but they can be a bridge to more sustainable solutions.

The focus on biofuels as a silver bullet to solve our energy and climate change crises is at best misguided. At worst, it is a scheme that could have potentially disastrous environmental consequences. It will have little effect on our fossil fuel dependence.

We must reduce energy use now if we hope to kick our oil addiction and slow climate change. Pushing biofuels at the expense of energy conservation today will only make our problems more severe, and their solutions more painful, tomorrow.

—Julia Olmstead is a graduate student in plant breeding and sustainable agriculture at Iowa State University and a graduate fellow with the Land Institute, Salina, Kan. She wrote this for the institute's Prairie Writers Circle.

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It is important to remember that the carbon dioxide released from the burning of biofuels is the same carbon dioxide released from the burning of fossil fuels. So plant-based energy can only be a real solution to the degree that we limit energy use from the combustion of carbon-based fuels, including food energy, to the energy captured by photosynthesis that takes carbon dioxide out of the air. Use of waste plant material to produce biofuels could be a very limited solution, particularly the use of waste that is burned (like wheat straw and stubble that is burned) or rapidly decomposed. However if this waste plant material is replenishing the organic matter (tied-up carbon) in the soil and it is diverted to energy production, the amount of carbon dioxide going into the air will not be reduced since organic matter in the soil will be reduced. Use of ethanol produced from corn may help the corn farmers and the ethanol producers, but it will hurt the livestock farmers, the food consumers (all of us) and will not contribute much to our energy and climate problems. *Dwight Platt*