

Biodiesel Brings a Lot to the Table

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U.S. biodiesel is NOT the cause of increasing food costs. The “perfect storm” of many factors, ranging from rising energy costs to unfavorable weather, is blinding eyes to the facts. Biodiesel helps redefine the future of energy security, the environment and the economy. At the same time, U.S. biodiesel production is actually driving increased production and thereby cutting the cost of soybean meal—an excellent protein source for hungry humans and animals. Biodiesel is truly a rising tide lifting many ships.

The causes of increased food prices are more accurately attributable to:

- Rising energy costs, which increase input/production/transportation costs;
- Weak dollar and increased speculation in commodities markets;
- Unfavorable weather in food producing areas outside the United States;
- A growing global population and rapidly expanding middle classes in developing countries that want to improve their diets.

Energy costs would be higher without biofuels currently supplementing supply. In fact, biodiesel helps reduce energy costs that escalate food costs. Merrill Lynch commodity strategist Francisco Blanch said in March that oil and gasoline prices would be about 15% higher if biofuel producers weren't increasing their output. That would put oil at more than \$115 a barrel, compared to \$102. U.S. gasoline prices would have surged to more than \$3.70 a gallon, compared with an average of a little more than \$3.25.

The Truth about Food Prices

The biggest cost factor getting food from the farm to the dinner table is transportation. John Urbanchuk, LECG, reported in February 2008 that foods directly impacted by corn and soybeans account for about 25% of the CPI (consumer price index) for food. Fats and oils prices have been accelerating but remain below rates experienced in 2004. However, the major concern for food is not corn or soybeans but higher energy prices. For example, an increase in energy prices has twice the effect on food prices as an equivalent increase in corn prices.

Agricultural commodity prices are still lower than they were 35 years ago when adjusted for inflation, and Americans spend a lower percentage of their disposable income on food. According to the Bureau of Labor

Statistics, soybeans and food prices as a whole have not kept up with the pace of inflation and, as is reflected by the Consumer Price Index, represent a good value to American consumers. Grains are more than 100% below their "should" prices and products like gas are 30% above.

It is important to note that a wide variety of commodity prices, including industrial metals, petroleum, coffee and cocoa, have surged recently.

According to the USDA, only 19 cents of every consumer dollar can be attributed to the actual cost of food inputs like grains and oilseeds. Labor costs account for 38 cents of every dollar a consumer spends on food.



Farm Value

Marketing Bill

Graphic courtesy of National Corn Growers Association

1. U.S. biodiesel production has increased the protein supply and made it less expensive than it would have been otherwise.

Multiple comprehensive economic studies evaluating biodiesel all had similar conclusions: Greater use of fats and oils for biodiesel production increases the value that farmers receive for their crops, while making protein meal less expensive.

Soybeans are a primary feedstock for U.S. biodiesel and each soybean is about 80 percent protein-rich meal and 20 percent oil. Since soybean oil

is a major feedstock for U.S. biodiesel, increased biodiesel production affects relative soybean meal and oil prices. According to the University of Missouri Food and Agricultural Policy Research Institute's 2008 US Baseline Briefing Book (FAPRI-MU Report #03-08), U.S. soybean meal exports will increase and the price may drop more than \$80 per ton over the course of the baseline. While an increased price for vegetable oil does increase the price of certain products such as salad dressings, margarines, and cooking oil, the 80% protein meal that is generated lowers feed costs for domestic livestock, dairy, and poultry producers. It also makes US protein meal less expensive in the international food and feed market.

U.S. soybean oil is readily available too. Current stocks of soybean oil in the U.S. are approximately 3 billion pounds, or equal to about 400 million gallons.

2. Biodiesel is spurring the growth of the U.S. soybean industry, making even more soy product available for food and fuel. Here's how:

Biodiesel will be the primary factor driving developments in the U.S. soybean processing industry, according to a comprehensive study commissioned by the United Soybean Board.

The study, called "Soybean Meal Evaluation to 2020," predicts that soybean processing capacity is expected to increase by 66% between 2005 and 2020, while U.S. soybean crops are expected to increase 21 percent. The 2008 FAPRI Baseline (FAPRI-MU Report #03-08), also projects the volume of U.S. soybeans that are processed to expand steadily over the next ten years.

Plant Science Research is adding "Virtual Acres" for greater production from existing cropland

In July, 2007 Monsanto announced plans to introduce new technology in 2009 that can increase yields 9 to 11%. In September, 2007 DuPont announced it is commercializing soybean varieties that increase yields by as much as 12%. If 90% of U.S. soybean acres adopted the new technology, more than 60 million acres could benefit from a 10% increase in yield. This potentially equates to more than 250 million additional bushels of soybeans (the equivalent of 380 million gallons of biodiesel).

The U.S. biodiesel industry has exciting new raw materials from under-utilized or non-edible sources

Investment in new non-edible raw materials sources such as algae, seashore mallow, mustard, camelina and jatropha continues at an

aggressive rate. In addition, as the ethanol sector continues to grow, more firms are investigating the potential of fractionating technology to remove corn germ (i.e. the portion of the corn kernel that contains oil) prior to the ethanol process. Furthermore, some ethanol plants have already announced their intention to employ technology to remove the remaining vegetable oil from dried distillers grains, a co-product of the ethanol process. Both of these technologies would add to the biodiesel raw material supply.

Furthermore, a growing percentage of U.S. biodiesel production is made from feedstocks like recycled restaurant oils and animal fats. Soybean oil only represents half of the domestic raw materials available for biodiesel production in the United States, and is one of many raw materials that can be used to produce biodiesel.

U.S. biodiesel industry initiatives have the potential to recycle commercial and agricultural wastes, bring sustainable agriculture to marginal lands, increase crop yields, and further lower pesticide and fertilizer applications. NBB's Feedstock Development program is addressing production of arid variety crops, algae, waste greases, and other feedstocks on the horizon have great potential to expand available material for biodiesel in a sustainable manner.

3. Biodiesel holds promise for developing countries as well as developed ones.

The Food and Agriculture Organization (FAO) recognizes the potential opportunities that the growing biofuel market offers to small farmers around the world. While the FAO recognizes the potential negative effects of expanding biofuel production on low income consumers, it also is aware that the growing biofuel market offers new opportunities for small farmers around the world. FAO calls for a plan to develop bioenergy policies ensuring "that everybody benefits" and has recommended small-scale financing to help farmers in poor countries produce local biofuel.

The United Nations Food and Agriculture Organization (FAO) has calculated that of the land that could be used for agriculture today, only 3.7 billion acres of the 10.4 billion acres are used, and of that, only 1% of that area is used for biofuels, which includes ethanol.

Lack of income fuels hunger

Christopher Flavin, president of the Worldwatch Institute, notes the increase in world agriculture prices caused by the global boom in biofuels

could benefit many of the world's rural poor. This is one conclusion of a new 450-page book, "Biofuels for Transport: Global Potential and Implications for Energy and Agriculture," authored by the Worldwatch Institute and published by Earthscan. The book finds that rising food prices are a hardship for some urban poor, who will need increased assistance from the World Food Programme and other relief efforts. However, it notes that the central cause of food scarcity is poverty, and seeking food security by driving agricultural prices ever lower will hurt more people than it helps.