

## **Blame it on Biofuels?**

Amid soaring food prices and global shortages of commodities, attacks against the renewable fuels industry have recently reached pitch with the blame of riots in Haiti, Pakistan, Egypt and Africa falling on its shoulders. But is the biofuels industry the sole cause of these problems? Is it fair to say that the production of biofuels is “a crime against humanity” as some have claimed? Biofuels Canada takes a look at the impact of these remarks.

by Amanda Watkins & Khalila Sawyer

Recently, the ethanol industry has come under fire for the increase in food prices worldwide. Critics such as Timothy Searchinger, Michael Grunwald and others point an accusatory finger at the biofuels industry touting it as the main culprit behind the inflation of food prices. And they are not alone in their accusations—their sentiments are echoed here in Canada in publications such as a recent edition of the National Post. In his article, “Biofuels Go From Saviour to Villain,” National Post journalist, Kevin Libin links rising food prices to increased ethanol production stating that the production of biofuels is responsible for “massive economic upheaval and environmental destruction.” Even established publications, such as Time magazine and Science magazine, have included their material accusing the biofuels industry of using pristine land to grow ethanol feedstock. The arguments have recently reached the boiling point where researchers and journalists are defending opposite ends of the spectrum.

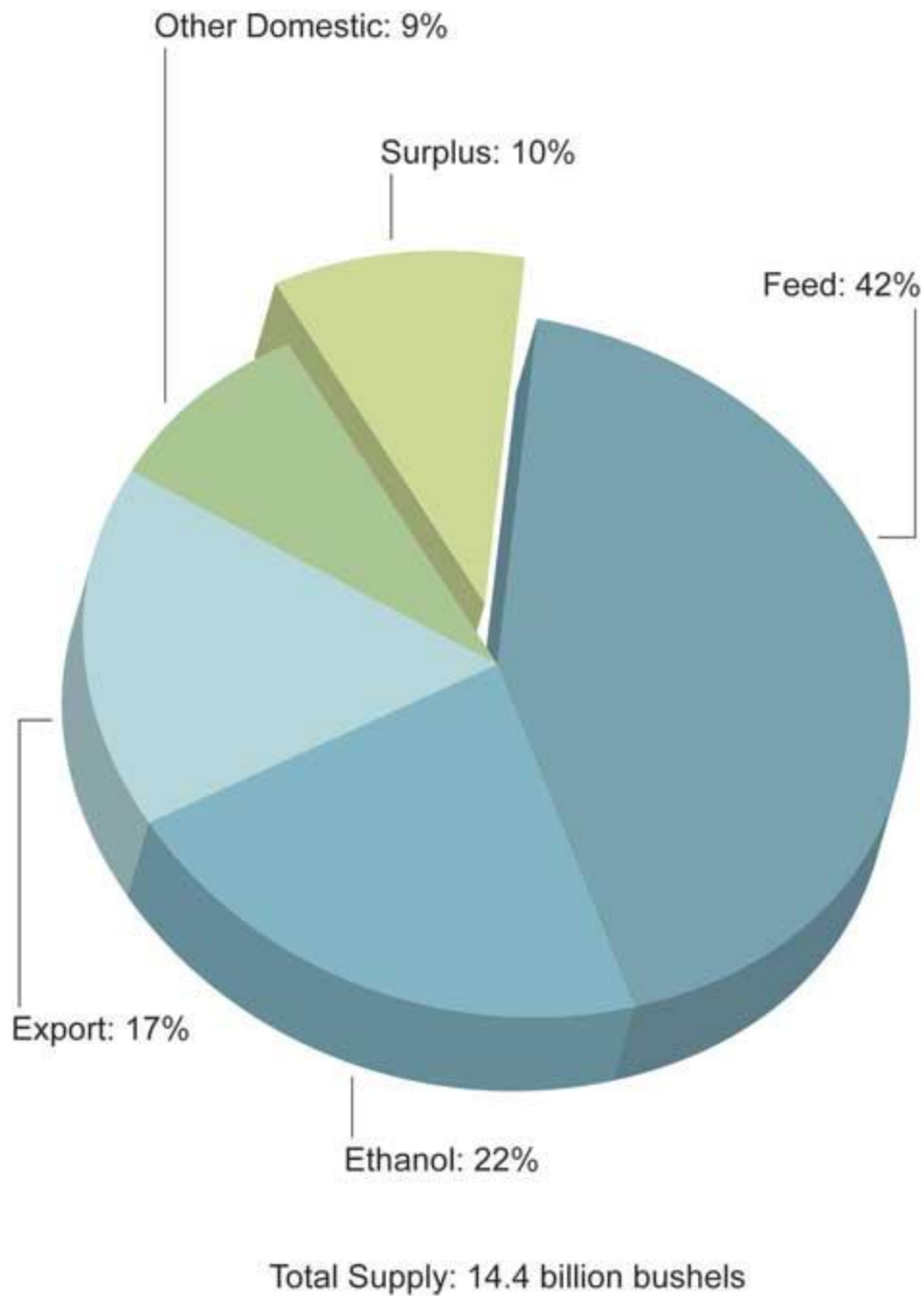
Although wielding a spotlight apparently intended to “expose” the biofuels industry, media coverage of this debate has failed to even scratch the surface of the many other factors contributing to the food crisis, while raising the hair on the backs of industry stakeholders. For all its charged rhetoric, the food versus fuel debate has been treated far too simplistically regarding the true cost of food and the influence biofuels have on food commodity prices. Importantly, the debate has ignored the fact that the rising costs of fossil fuels also have a direct correlation to the rising price of food and that the biofuels industry is still very much in its infancy.

### **Separating Fact from Fiction**

In 2007, the U.S. Department of Agriculture estimated that food prices increased by approximately 4 per cent—similarly oil prices jumped by nearly 100 per cent during this time as well. The last time Canada faced soaring food prices was during the oil crisis of the 1970s. According to the International Monetary Fund, today’s real food prices are still well below the real food price increases experienced in the 1970s. The crisis illustrated the relationship between oil production and the cost of food. As the price of oil increased, so too did the price of producing and transporting food. It is precisely this costly dependence on fossil fuels for transportation that the biofuels industry aims to correct—a fact that is conveniently left out of the most heated attacks on the industry. According to the United Nation’s World Food Program’s Operational Requirements, Shortfalls and Priorities report that was released in February, some of the root causes behind high food prices are, in fact, rising energy costs, in addition to rapidly growing economies in Asia and weather related supply shocks such as Australia’s recent drought.

In Canada, the charge that biofuels, specifically corn ethanol, have single-handedly caused the rising prices is without merit. While some Canadian farmers are using their corn stocks, rather than grain, to produce ethanol, only 10 per cent of all corn grown in Canada actually ends up in the Canadian food supply. In fact, according to the Canadian Renewable Fuels Association, most corn grown in North America is used as livestock feed, either domestically or overseas. Combined with the fact that crop acreage in Canada is currently up to record levels, and that ethanol in Canada is normally produced from lower value grains and can be made from poor quality and damaged crops, the Canadian food supply should remain largely unaffected by the production of biofuels.

“It is unconscionable for anyone to sensationalize that the use of feedstocks for biofuel production is causing world hunger,” says Judie Dyck, president of the Saskatchewan Biofuels Development Council. “It is equally unfair to blame high agricultural commodity prices for increased food prices. A recent U.S. study reported raw commodity prices make up only 19 per cent of the price of food, the remaining 81 per cent is profit, marketing, labour, and yes, energy prices, which have exceeded \$116 per barrel of crude oil. Higher oil prices impact each step in the food chain from field to consumer.”



*SOURCE: National Corn Growers ASSOCIATION BASED ON USDA DATA*

**Debunking Myths**

A number of industry stakeholders from a variety of backgrounds have joined forces to fight the negative and misleading information that has been presented in the media.

Recently, Ontario Premier Dalton McGuinty publicly supported the biofuels industry, saying he would not reconsider his government's program of helping ethanol producers despite concerns that it is driving up the price of food since biofuels are not the main or only factor behind the food crisis. In 2005, Ontario launched

a \$520 million plan after implementing a requirement of 5 per cent ethanol in all gasoline sold in the province. Since then, more than \$26 million in capital grants have been available to producers who have been approved for operational grants allocated for 485 million litres of ethanol over the next 10 years.

John Urbanchuk, an economist and director of LECG, a global expert services firm, notes that the most dramatic factors at work are the steadily increasing price of oil in a report titled, "The Relative Impact of Corn and Energy Prices in the Grocery Aisle." "Retail food prices are not likely to accelerate significantly in 2008 and beyond, even as ethanol production continues to expand," the report says. "In fact, consumers will be more severely affected by rising gasoline and energy prices than by increases in corn prices." According to Urbanchuk, ethanol's impact on food prices is negligible, particularly when compared to the impact of energy costs and that coproducts such as distillers grains actually help put downward pressure on food.

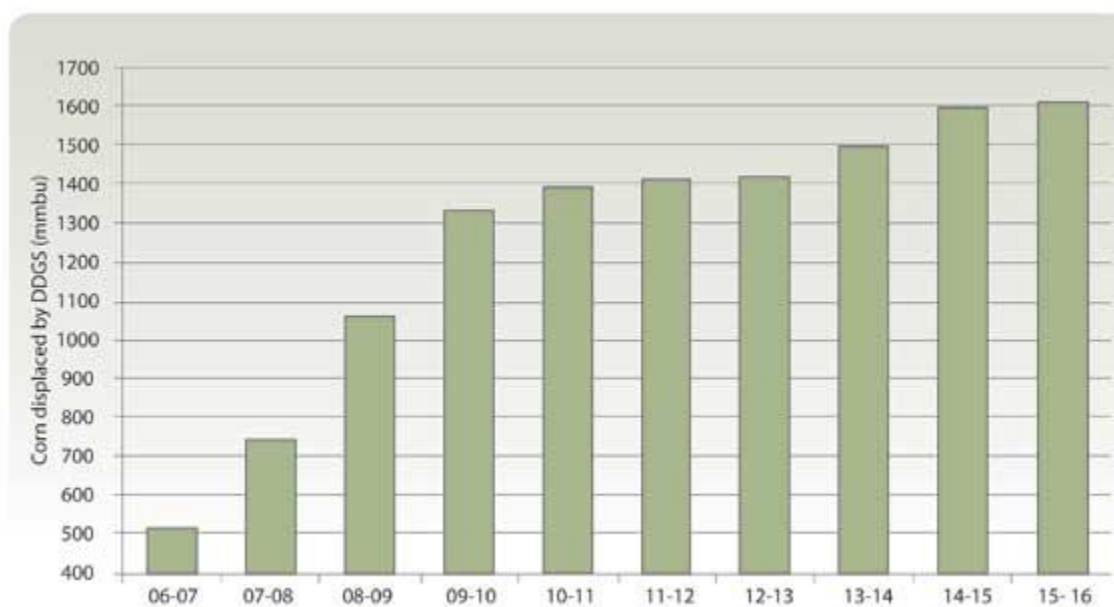
Tim Haig, chair of the Canadian Renewable Fuels Association and CEO and president of BIOX Corp., a producer of biodiesel, also believes that biofuels can help relieve the pressure of food prices rather than raise them as he explained in his column in The Globe and Mail in April. "Marketing costs, including those fuel costs that have doubled, account for roughly 80 per cent of the price we pay at the checkout counter," he noted. "That's where the problem is overwhelmingly to be found. Farmers need fuel to harvest their crops. Then they must ship their goods to market. With oil prices well above \$100 per barrel, that has become more expensive, especially in the developing world, which is much more exposed to dramatic price swings."

However, Haig says perhaps the real solution lies in the development of a bioeconomy, where value is drawn from renewable resources that are grown and harvested rather than from non-renewable sources. "As for fears that the bioeconomy would overtax our ability to supply both fuel and food, it is important to remember that new-generation technologies such as cellulosic ethanol are already diminishing the burden on crops," Haig says. "New cellulosic ethanol reduces the greenhouse gas footprint by as much as 90 per cent [and]... advances in bio-science are increasing yields by dramatic margins, enabling farmers to do more with less."

"Sound international market trade and government policies along with the development of a sustainable agriculture sector in developing countries will go a long way to alleviating world hunger," adds Dyck.

### The Future of Biofuels in Canada

Ultimately, a goal of the biofuels industry is to displace fossil fuels with sustainable energy sources. Lower fuel costs from ethanol also represent the most viable long-term option for keeping food prices shielded from the rising cost of fossil fuels.



*"The critics forget that we don't use all the corn for ethanol," said Richard Tolman, CEO of the National Corn Growers Association, at this year's National Ethanol Conference. "We project that by 2015 we will be displacing a half a million bushels of corn and feed channels to dried distillers grains."*  
*Source: National Corn Growers Association*

"If we expand the use of renewable biofuels, we can ease the pressure on oil and in turn help corral some of the inflationary drivers," said Robert Gallant, president and CEO of GreenField Ethanol at the Alternative Energy Conference in May. And with the German-based Energy Watch Group's recent study forecasting daily production of oil to decline nearly 40 per cent in the next 15 years and a report by The International Energy Agency predicting that global energy demand is expected to rise by at least 50 per cent by 2030, the emerging gap between supply and demand is unmistakable. "In a future where demand will exceed supply, biofuels are both necessary and financially viable," says Gallant.

The danger of the current attacks against the biofuels industry is that the production of biofuels could be cut short before the industry expands into waste diverting feedstocks.

To date, the biofuels industry has shown early progress for alternative fuels, but requires further investment to develop the technology to the point where its positive effects will be felt on a larger scale. For example, energy can be attained by harvesting the non-edible portions of a variety of plants including corn, wheat, trees and sugarcane. This cellulosic approach would eliminate the need to attain any biofuels from the food supply – thus making biofuels a part of food production, not a competing process. This would mean that biofuels could be produced on existing farmland, from existing crops. Moreover, a sustainable energy supply could help decrease food prices because the overall costs for producing food would fall with lower energy prices.

Technologies such as cellulosic ethanol production are still in their research and small scale production stages, and thus the present reliance of the industry on government subsidies and research grants is needed to ensure the long-term benefits of biofuels are realized. Not only does the biofuels industry need more time and energy to develop its technologies, it also requires investment in infrastructure such as large-scale plants, processing centres and trained workers.

The term biofuels itself describes fuels derived from biomass sources as varied as switchgrass, sweet potatoes, algae, and sugarcane among other feedstocks, each with its own set of far-reaching environmental and economic considerations that deserve to be investigated independently. Perhaps the end of this debate will be marked by the further development and implementation of cellulosic ethanol which will prove there is a rational pathway for both food and fuel rather than one or the other.

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