# Oilseed Production and Biofuel Economics

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Doug Young, Professor of Agricultural Economics, Washington State University, Pullman, WA, former visiting scholar at Lethbridge R. C., 2003-2004

Summary

North American politicians and the public are reveling in a "biofuels frenzy" with a blizzard of government subsidies, biofuel blend mandates, and tax breaks for the industry. In light of this enthusiasm, what is the economic and agronomic niche for Canadian canola in the global energy situation? Dr. Young noted that northern Alberta may be the "Saudi Arabia" of tar sands, but that canola occupies a very small niche in the global biofuels picture. World wide, canola ranks third behind soybeans and palm oil among biodiesel crops. USA and Brazil combined produce 148 million tonnes of soybeans annually versus Canada's 10 million tonnes of canola. Indonesia alone produces 64 million tonnes of palm oil. Canadian canola accounts for just a few percent of world biodiesel sources. Furthermore, biodiesel is the "little brother" of ethanol in the duo of biofuels. Sugar cane and corn dominate ethanol feedstocks. Brazil is definitively the elephant of ethanol producing 423 million tons of sugar cane annually. USA and China, the giants in world corn production, provide 422 million of tonnes of this crop each year.

Nonetheless, the outlook for Canadian canola is bullish for the immediate future. Agriculture and Agri-Food Canada predicts record acreages and exports and near record prices for the 2007 canola crop. Expected canola prices exceed farmers' breakeven levels by a healthy margin in Alberta, Saskatchewan and Manitoba. Indeed numerous subsidies and mandates for biodiesel in the U.S. will further boost demand for Canadian canola. Dr. Young is less optimistic that U.S. biodiesel incentives will improve U.S. energy self sufficiency. U.S. canola production is less than 7% of Canada's. The hot dry conditions in the American west work against canola. Yields are lower than Canada's and even today's elevated canola prices do not always exceed U.S. production costs. The U.S. is the world's largest soybean producer and accounts for 96% of North America's supply. But economists expect U.S. soybean acreage to fall sharply as corn prices and acreage accelerate in response to the "exploding" ethanol subsidies and mandates in the U.S. In the U.S Corn Belt, corn and soybeans compete head-on-head for acreage. Current economics favor corn.

Young expects the most important effects of biofuel subsidies and mandates to be inflicted on other markets and on the environment. He explains that the global economic system is like the transportation network in a large city. If the government reduces gasoline taxes, more people will drive cars and some bus companies may go broke or the metro system may default on its bonds. Small food kiosks and produce stands near bus and metro stops may also go out of business. If some roads are closed due to construction or neighborhood projects, motorists will seek alternative routes through residential neighborhoods. This will increase noise and congestion along the new routes.

The global economic system works exactly the same way. As corn is diverted to ethanol to fuel North Americans' thirsty vehicles, corn prices increase and the poor in Mexico who depend on tortillas may go hungry or forego education for their children. Cattle feeders in southern Alberta will suffer sharp increases in feed costs. Feeders may not be able to pass elevated costs to consumers of steaks and hamburgers as meat prices force people to cut back on red meat. Smaller feeding operations will likely fold first leading to more concentration and less competition in the industry. Chicken growers and consumers will suffer a bit less because poultry is a more efficient converter of grain to protein. High grain prices have made wheat a better bet for many western U.S. farmers, despite subsidies and mandates for biodiesel. Consequently, some U.S. farmers and economists are concerned that biodiesel blend mandates will be met by importing palm oil from Indonesia. Indonesia is clearing and burning rain forest to expand palm oil plantations. This can decrease biological diversity and accelerate global climate change. Ballooning U.S. corn acreage supported by abundant fertilizers and pesticides can increase soil erosion, pollute water, and encroach on wildlife habitat.

Given the multiple market and environmental impacts of the rush of government incentives for biofuels, Young cautioned citizens, scientists, and economists to reflect on whether more efficient government policies are being bypassed. Some of these alternatives include:

1. Promote education for energy conservation
2. Promote energy saving technology like hybrid cars and florescent light bulbs
3. Promote other bioenergy sources: Cellulosics (trees, straw, switchgrass), recycled greases and oils
4. Promote more efficient and cleaner extraction of petroleum, natural gas and coal
5. Promote more affordable clean energy (hydro, solar, wind, geothermal)
6. Tax polluting emissions
7. Tax polluting fossil fuels like gasoline, diesel and coal
8. Mandate strict energy efficiency standards for autos, homes and industry
9. Remove trade barriers in sugar and other clean biofuels
10. Promote nothing. Let markets determine energy choices and the pace of development. Have faith that any damage from government subsidies and regulations will outweigh any failures of markets to consider environmental or other costs.

Young concluded that the politics of biofuels has outraced the agricultural science, engineering and economics knowledge necessary for sound public decisions on these alternatives. Bio-physical and social scientists at the Lethbridge Research Centre and elsewhere were urged to speak out and inform the public and policymakers with solid theory and research-based data.