

Liquid gold

from

fields of green

Developing biodiesel industry looks to tap a gusher by turning region's abundant mustard and canola seed crops into fuel

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If Rumpelstiltskin of fairy tale fame could spin straw into gold, it's not too far-fetched to believe common field crops might be transformed into liquid gold.

A budding industry in the region is extolling the possibilities of biodiesel fuels. And investors in the industry think once they convert crops such as mustard and canola seed into biodiesel, there will be no end to the marketing demands.

"There's people screaming for it already," claims Steve Stetner of the Columbia Oil Seed Co. near Creston, Wash., where an oilseed crushing plant is expected to ramp into production sometime early next year.

"All we need to do is get the crusher on line and everything else is going to fall into place."

Research into biodiesel made from farm crops is under way at the University of Idaho and by the Nez Perce Tribe. So far, results are encouraging.

But farmers in the region, while supportive of the idea of biodiesel production, are cautious about throwing their fate in with an industry that may not prove to be as profitable as the promoters hope.



Tribune/Barry Kough
UI researcher Joe Thompson runs the agriculture engineering lab.

"I'm trying to figure out whether or not to be excited," says Pullman farmer Steve Mader, who's on a personal fact-finding mission into the logistics of making biodiesel from canola and mustard seeds.

"It has to be cost effective on the farm. It has to be a stand-alone profit center.

"I'm concerned that the yields and the market price do not equal enough gross to pay the cost of growing that crop plus a reasonable rate of return."

Other farmers say they haven't had much luck making money on canola.

Spring canola is not grown large-scale in this area and is usually used as a rotational crop, meaning it is planted every four to five years between other crops such as wheat or barley. It gives the land a rest and replaces nutrients stripped from the ground by the previous crops.

Farmers who produce it grow a special premium variety of canola, which is then shipped to Great Falls, Mont., and manufactured into an edible cooking oil, most of which is shipped to Japan. The canola oil that consumers buy in the stores in Idaho and Washington usually comes from Canada.

Nathan Riggers, a Nezperce-area farmer, says it's likely a biodiesel industry would pay farmers a commodity price for their crop. That means about 8 cents a pound, compared to the 14 cents a pound they get for the premium canola.

The cost of raising canola ranges from 8 to 26 cents a pound, depending on the yield.

"I support it (a biodiesel industry)," Riggers says, "but

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Q&A: BIODIESEL

What is biodiesel?

Biodiesel is the name of a clean-burning alternative fuel produced from domestic, renewable resources. Biodiesel contains no petroleum, but it can be blended at any level with petroleum diesel to create a biodiesel blend. It can be used in compression-ignition (diesel) engines with little or no modifications. Biodiesel is simple to use, biodegradable, nontoxic and essentially free of sulfur and aromatics.

Is biodiesel the same as raw vegetable oil?

No. Fuel-grade biodiesel must be produced to strict industry specifications in order to insure proper performance. Biodiesel is the only alternative fuel to have completed the health effects testing requirements of the 1990 Clean Air Act amendments. Biodiesel that meets the industry specifications and is registered with the Environmental Protection Agency is a legal motor fuel for sale and distribution. Raw vegetable oil cannot meet biodiesel fuel specifications, is

not registered with the EPA, and is not a legal motor fuel.

How is biodiesel made?

Biodiesel is made through a chemical process called transesterification during which the glycerin is separated from the fat or vegetable oil. The process leaves behind two products — methyl esters (the chemical name for biodiesel) and glycerin (a valuable byproduct usually sold to be used in soaps and other products).

Why should I use biodiesel?

Biodiesel is better for the environment because it is made from renewable resources and has lower emissions compared to petroleum diesel. It is less toxic than table salt and biodegrades as fast as sugar. Since it is made in the United States from renewable resources such as soybeans, its use decreases our dependence on foreign oil and contributes to our own economy.

Where do I get biodiesel?

Biodiesel is available nationwide. It may be purchased directly from biodiesel producers and marketers, petroleum distributors or at a handful of public pumps throughout the nation.

GLOSSARY: Biodiesel

Mono-alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats that conform to strict industry specifications for use in diesel engines. Biodiesel refers to the pure fuel before it is blended with diesel fuel. Biodiesel blends are denoted as, BXX with XX representing the percentage of biodiesel contained in the blend (i.e. B20 is 20 percent biodiesel, 80 percent petroleum diesel).