

Power MPR News with a year-end gift (tax deduction deadline: Dec 31)

[MPRNEWS.ORG/DONATE](http://MPRNEWS.ORG/DONATE)

## Farmers hope spindly weed is a biofuel gusher

Stephanie Hemphill · CAMBRIDGE, Minn. · Jul 31, 2013

Environment

### LISTEN **Story audio**

4min 46sec ([http://www.mprnews.org/listen?](http://www.mprnews.org/listen?name=/minnesota/news/features/2013/07/31/biofuel_20130731_64.mp3)

[name=/minnesota/news/features/2013/07/31/biofuel\\_20130731\\_64.mp3](http://www.mprnews.org/listen?name=/minnesota/news/features/2013/07/31/biofuel_20130731_64.mp3))



Biofuel MPR Photo/Jennifer Simonson

On a small test plot in a 24-acre field, an experiment is underway that could help scientists produce biodiesel from an ancient plant.

Planted among neat rows of six-inch-tall soybeans are bristly two-foot-tall camelina. It's a new crop of sorts for Gerald Gellee, a farmer who for years has planted corn, soybeans, oats, rye and other crops.

This year Gellee has turned to camelina, a member of the mustard family that produces seeds with twice as much oil as soybeans.

The spindly plant looks more like a weed than a crop, but Gellee and his colleagues hope it's going to be a whiz at producing biodiesel. They know that for the camelina effort to be successful, farmers will have to grow it and manufacturers process it.

Growing two crops on one piece of land is one aim of the experiment, as it will allow farmers to first harvest the camelina seeds, then soybeans.



Camelina MPR Photo/Jennifer Simonson

If successful, it will be a boon to farmers and researchers who are racing to find ways to make fuels out of plants other than corn and soybeans, said Anoka-Ramsey Community College biology teacher Melanie Waite-Altringer.

"If they can have the icing on the cake of having this biofuel crop intermixed with it, it's a good thing," said Waite-Altringer, who leads the experiment. "it's just another way to get additional money."

Waite-Altringer said camelina is a hardy plant that grows fast, doesn't need much fertilizer, and helps hold the soil in place.

"You plant this right when the ground thaws, that's the best time to do it, right at that moment, and then it will out-compete the other weeds that would be coming in," she said. "Oh, and it can withstand temperatures of 20 degrees, so it can stand frost."

When the test plot plants matured, the field was sprayed with Roundup herbicide to kill the camelina and make sure it's all dry and ready for harvest this week.

The seeds will be trucked to the Ever Cat Fuels biodiesel plant in Isanti, Minn.

**"If they can have the icing on the cake of having this biofuel crop intermixed with it, it's a good thing."**

— Melanie Waite-Altringer

"These little seeds are about 30, 32-percent oil right now," said David Wendorf, the plant's marketing director. "We'll crush them and get about 20-percent oil out of the seed."

That's about double the oil content of soybeans. Ever Cat uses a patented technology that can handle any plant-based feedstock. The camelina seed oil will be added to a tank that normally contains waste oil from food processing and ethanol production, and used cooking oil from restaurants.

"From the feedstock tank it's pumped through our reactors, which takes less than thirty seconds," Wendorf said. "It gets converted into biodiesel. We use no chemicals, we use no additional water."

Ever Cat has a \$500,000 grant from the U.S. Department of Energy to push biodiesel production from camelina and another weedy plant called pennycress.

In contrast to most of the biofuel industry, which operates on a much bigger scale, the small plant can produce only three million gallons a year.



Camelina seeds *MPR Photo/Jennifer Simonson*

Still, Dennis Timmerman, senior project development director of the Agriculture Utilization Research Institute in Marshall, Minn. is impressed with the company's portable production plant. He said it would allow individual farmers to produce biodiesel from their crops to use in their own equipment.

"It's a great place for their industry to start," Timmerman said. "Because their system has some advantages, allows the producers to use a smaller scale and produce a quality fuel."

In Montana, farmers grow more than 24,000 acres of camelina. Results from the Cambridge experiment will be available in early winter.