



On-Farm Research in Winter Canola Production with Western Illinois University



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Background: Rising use of renewable energy may cause a sharp increase in demand for biodiesel and for the vegetable oils used to make it. Recently released winter canola varieties offer much improved yield potential and winter hardiness, along with high oil content and quality. Winter canola is a promising option for farmers to meet near-future oilseed demand, but research needs to start now to be ready for future demand.

Project: Field trials comparing varieties of winter canola and other fall-planted mustard crops will be planted at WIU and on private farms in the region, to generate data and experience on field operations, yield, and oil quality. Additional larger scale (~160 a) canola production will allow pilot processing runs through the Tri-City Energy biodiesel plant in Keokuk, IA.

Timeline:

- Fall 2008: Plant field trials.
- Summer 2009: Harvest field trials.
- Fall 2009: Plant field trials.
Plant production acreage.
- Summer 2010: Harvest field trials.
Harvest production acreage.
Biodiesel pilot processing run.

Funded by:

Farmer cooperators: Six farmers are needed to plant strip trials of winter canola and other winter oilseeds in Fall 2009. Wheat stubble fields are ideal (they allow early planting) but some farmers may follow corn or soybeans. Strip plots will likely be 1 to 2 drill passes wide and \geq 1,000 ft. long, with 6 to 10 strip plots per farm (footprint of 3 to 5 acres).

Farmers will:	WIU will:
<ul style="list-style-type: none">- Provide reasonable quality land.- Provide and operate standard field crop equipment.- Follow best management practices for crop production.- Harvest strip plots individually and determine yield (e.g. with a weigh wagon)- Attend 1 – 2 meetings per year.	<ul style="list-style-type: none">- Pay \$1,000 / yr for land & management.- Provide or reimburse all inputs.- Provide best management practices.- Provide information assistance throughout the season.- Provide field assistance for planting and harvest.- Reimburse mileage costs for meetings.

Basic winter canola facts (and some guestimates):

Planting date: Mid-September (ideal) or ASAP after corn or soybean harvest.
Harvest date: ~ July 1.
Yield: 2500 to 3500 lb/a (40 to 60 bu60/a)
Nitrogen rate: ~ 100 lb/a
Oil content: 40%
Weed control: Multiple herbicide options for PRE and POST-grass control. Some POST-broadleaf products registered, but good crop canopy is best tactic. Observe plant-back restrictions from previous herbicides (esp. sulfonylureas).
Insects: Not considered a major issue in normal years, but a variety of insects are willing to eat canola under stress conditions or in outbreak years. Multiple insecticide registered.
Diseases: Blackleg (fungal disease) is primary threat. Disease-free seed and seed treatments are best responses. Other general broadleaf diseases (e.g. white mold) also appear in outbreak years. Multiple fungicides registered.
Planting: Standard grain drills used.
5 to 10 lb/a (@ 115,000 seeds/lb)
7.5 to 15 in. rows
0.5 to 0.75 in. deep
Harvest: Standard combines used.
Current price: \$0.252 / lb (\$15.12 / bu60) for July 09 delivery

One good canola production guide: Great Plains Canola Production Handbook
<http://www.oznet.ksu.edu/library/crpsl2/mf2734.pdf>

2007-08 winter canola in Macomb, IL:

