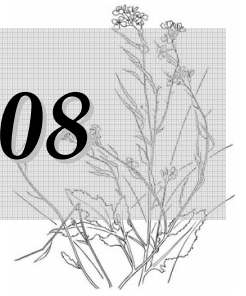


# Montana Oilseeds Update 2008



## Welcome to the Very 1st Edition of the Montana Oilseeds Update 2008

The Update aims to provide the most current information on key aspects of oilseed rotations and production, oilseed crushing and uses of oil (such as biodiesel) and oilseed cake. This issue focuses on oilseed crushers and biodiesel processors.

Many of you graciously provided feedback on what you think should be in a brief newsletter like this. Many more of you have attended either an Oilseed and Biodiesel workshop or farm tour in 2007 or early 2008.

**We need your help.** We'd like your feedback on three things:

- Your thoughts, plans or actions on oilseeds and biodiesel in the future.
- Your impressions of farm energy efficiency tools
- Any suggestions you have to make the next edition of the Montana Oilseeds Update 2008 of more use to you.

It's easy to do. **Please take a few minutes to fill out the attached feedback form and mail it back to NCAT in the enclosed stamped envelope by April 1, 2008.** All the feedback you provide is anonymous and confidential.

Everyone who completes the feedback form is eligible for free registration at 2008-2009 Montana Oilseed and Biodiesel workshops, which will be more advanced in their content. Just fill in the small form at the bottom of the feedback form.

I hope you find this issue of the Update informative and useful. We hope to get feedback from you soon.

Thank you,  
Al Kurki and Holly Hill  
Oilseeds for Fuel, Feed and the Future Project  
National Center for Appropriate Technology (NCAT)

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## Seed cost reimbursement for first-time camelina growers

HELENA, Mont. -- Farmers who plant camelina for the first time can get their seed costs reimbursed if they farm in the 32 counties of northern and eastern Montana covered by WIRED Montana's Agro Energy Plan.

The reimbursement program covers camelina seed costs of up to \$1.30 per pound for a minimum of 10 acres and a maximum of 80 acres at seeding rates of 3 to 5 pounds per acre.

The purpose is to encourage growers to gain experience planting camelina at a time when high wheat and barley prices might tempt producers to forego rotation crops, says Adam de Yong, project director of WIRED Montana's Agro Energy Plan. The program is funded by a Workforce

Innovation in Regional Economic Development (WIRED) grant from the U.S. Department of Labor.

Forms to apply for camelina seed cost reimbursement are available from Bio-Product Innovation Centers at Havre, Joliet, Lewistown, Sidney and Wolf Point.

Additional information about camelina is available from the Montana Department of Agriculture website at [www.agr.mt.gov/camelina](http://www.agr.mt.gov/camelina) and from Tracey Jette, Bio-Product Innovation Centers network coordinator, at (406) 262-5923 or by email at [agr@mt.gov](mailto:agr@mt.gov).

Anyone interested in the seed-cost reimbursement needs to contact Tracy before they purchase their seed.

# Small Scale Oilseed Processing

Excerpted from Montana State University's Agricultural Marketing Policy Center Briefing No. 88 by Joel Schumacher

## Farm Production

Farm based processors need to assess current crop yields and costs to determine whether or not an oilseed crop is a viable option for their crop rotations. This assessment should include the agronomic and financial implications of altering current crop rotations. Combining the estimated oilseed acreage with the expected yield from the oilseed crop provides an estimate of on-farm production.

## Equipment

One of the largest capital expenditures for a small scale oilseed processor is the mechanical extraction press. These presses may be sold either with or without a power source. Equipment retailers may include various accessories with their processing equipment. It is important to consider exactly what equipment is included when comparing offers. Many presses are manufactured in foreign countries. Several such manufacturers have US based distributors to provide sales, service and technical support but others may not.

## Processor Capacity

Commercially available mechanical processors have daily processing capacities ranging from less than one ton to over 50 tons. Several important issues should be evaluated when determining the correct processing capacity for an operation. The capacity of the processor and the hours of operation determine the amount of seed that can be processed. Commercial plants often operate 24 hours per day for over 300 days each year, but smaller processors may operate for less than 12 hours per day and only a few months each year. Table 1 presents estimated annual processing volumes for three processors with different capacities, assuming that each is operated 12 hours a day for 120 days each year.

**Table 1: Estimated Annual Plant Output @ 12 hours/ day, 120 days/ year.**

Processor Daily Capacity	2 Tons	5 Tons	30 Tons
Operating Days Per Year	120	120	120
Operating Hours Per Day	12	12	12
Oil Content of Feed Stock	35%	35%	35%
Oil Recovery Rate	75%	75%	75%
Annual Seed Requirement (Short Tons)	120	300	1,800
Annual Oil Production (Gallons)	8,400	21,000	126,000
Annual Meal Production (Short Tons)	80	200	1,202

## Upcoming Events

### MSU-N Biodiesel Test Lab Open House, March 27, 2008

Applied Technology Center, Havre, MT, The Montana State University-Northern Bioenergy Innovation and Testing Center will exhibit its new ASTM-grade biodiesel test lab and other services. Contact Jessica Alcorn-Windy Boy, Director, [j.alcornwindyboy@msun.edu](mailto:j.alcornwindyboy@msun.edu) (800) 662-6132.

### Small Scale Biodiesel Producer Efficiency Workshop

DEQ and our partners will host a biodiesel production efficiency workshop during the summer of 2008. It is aimed at outreach staff and small-scale producers (10,000 gallons or less) and others interested in farm-scale self-use of biodiesel. Topics will include efficiency improvements to reduce costs, troubleshooting, alternate feedstocks, and methanol re-use. Contact Howard Haines, (406) 841-5200, or [biwebb@mt.gov](mailto:biwebb@mt.gov).

**Montana Ethanol & Biodiesel Conference, July 20-22, 2008, Hilton Garden Inn, Kalispell, MT** Ethanol Producers and Consumers (EPAC) 18TH Annual Conference, Food vs. Fuel Conference speakers represent a wide range of expertise

## Resources

### Biodiesel Production

- "Biodiesel – A Primer" By Dave Ryan [www.attra.org/energy](http://www.attra.org/energy)  
*Click on Biodiesel*
- "Biodiesel Use, Handling and Fuel Quality" By Andrew Pressman and Mike Morris [www.attra.org/energy](http://www.attra.org/energy)  
*Click on Biodiesel*
- "Biodiesel Production for On-Farm Use: A Curriculum for Agricultural Producers" [www.attra.org/energy](http://www.attra.org/energy)  
*Click on Biodiesel*
- "From the Fryer to the Fuel Tank: The Complete Guide to Using Vegetable Oil as an Alternative Fuel" By Joshua Tickell [www.veggievan.org](http://www.veggievan.org)
- Journey to Forever Website [www.journeytoforever.org/biodiesel](http://www.journeytoforever.org/biodiesel)

### Oilseed Production & Crushing

- "Oilseed Processing for Small-Scale Producers" By Al Kurki [www.attra.org/energy](http://www.attra.org/energy)  
*Click on Biodiesel*
- "Oilseed Processing: An Overview" By Joel Schumacher [www.ampc.montana.edu](http://www.ampc.montana.edu)  
*Click on Briefing Papers*
- "Small Scale Oilseed Processing" By Joel Schumacher [www.ampc.montana.edu](http://www.ampc.montana.edu)  
*Click on Briefing Papers*

in the renewable fuels industry including construction and engineering companies and offers valuable networking among the attendees. Phone (406) 785-3722 or email [epac@ethanolmt.org](mailto:epac@ethanolmt.org), website: [www.ethanolmt.org](http://www.ethanolmt.org)

### Biodiesel for Montana's Future Program

The Montana Department of Environmental Quality's (DEQ) grant from the Montana Agro Energy Plan provides training opportunities in Montana's WIRED region. The Biodiesel for Montana's Future program includes activities to: educate operators, maintenance staff, and fuel suppliers to the use of biodiesel for WIRED-region school bus and public fleets; update a bioenergy permit guide for entrepreneurs and educators; and develop certification data and training for use of biodiesel co-products in local markets. If interested in these opportunities, please contact DEQ at (406) 841-5200, [biwebb@mt.gov](mailto:biwebb@mt.gov), or check the availability of opportunities at [www.deq.mt.gov](http://www.deq.mt.gov), select "biodiesel" in the "What are you looking for?" menu.

## Equipment Sources

The following list is a sample of biodiesel and oilseed equipment suppliers and distributors and is not representative of all options, nor are these sources endorsed by NCAT. Please do your own research before investing.

### **Cropland Biodiesel**

2003 Pangborn Rd.  
Lynden, WA, 98264

[www.croplandbiodiesel.com](http://www.croplandbiodiesel.com)

Contact: Doug Fluit at (360) 815-7061  
*Cropland Biodiesel sells extruders ranging from 1 ton to 5 ton per day capacity. Call for prices.*

### **Circle Energy**

PO Box 298  
Dodgeville, WI 53533  
800-366-3402

[www.circle-energy.com](http://www.circle-energy.com)

Contact: Jon Becker-Schickel at  
(307) 867-2233

*Circle Energy offers German Kern Kraft oil presses and filters as well as Evolution Biodiesel processors. Processors range from the 13 Gallon "Mini-Ester" for \$1495 to the 230 Gallon "Farm Boss" for \$7495.*

### **BioFuel Canada Ltd**

280 Midpark Way S.E.  
Calgary, Alberta Canada  
T2X1J6

(403) 255-4820

[www.biofuelcanada.ca](http://www.biofuelcanada.ca)

*BioFuel Canada manufactures and distributes a 5 ton and 10 ton per day capacity cold press. They also provide larger pressing plants with sizes of 30, 50, 60, 150 and 200 tons per hour available.*

### **Woodleaf Biodiesel Innovations**

6840 Woodleaf Road  
Woodleaf, NC 27054 |  
(704) 278-2256  
[www.woodleafbiodiesel.com](http://www.woodleafbiodiesel.com)  
*Woodleaf Biodiesel sells Mammoth Oilseed Presses*

*ranging from 4 ton to 10 tons per day capacity. They also sell Fuelmeister biodiesel processors in 20 gallon and 40 gallon per batch capacities.*

### **Biodiesel Solutions**

1395 Greg Street  
Suite 102  
Sparks, NV 89431  
Contact: Greg Springer at  
(775) 358-6400  
[www.biodieselsolutions.com](http://www.biodieselsolutions.com)  
*Biodiesel Solutions sells the BiodieselMaster, a continuous-flow processor that produces 1000 gallons of biodiesel per day. Designed for agricultural communities to produce and use their own biodiesel locally.*

Want to build your own biodiesel processor? Check out the following website for plans, designs and ideas to get started! [http://journeytoforever.org/biodiesel\\_processor.html#intro](http://journeytoforever.org/biodiesel_processor.html#intro)



*One ton per day oilseed crusher on the farm on Ken DeBoer in Ryegate, MT.*

### **Farm Energy Search Tool**

The National Center for Appropriate Technology has created a handy "one-stop shopping" search tool for farms and ranches interested in funding and building renewable energy projects, reducing energy costs, and becoming more energy self-sufficient. Using clickable maps and a few simple drop-down menus, growers can quickly find technical assistance, financial assistance and sources of equipment for making energy saving improvements and building anaerobic digesters, biodiesel, ethanol, wind and solar energy projects. The tool is at [www.attra.ncat.org/farmenergysearchtool](http://www.attra.ncat.org/farmenergysearchtool)

**Farmer Innovation Grants** Seven Montana farmers were awarded a total of \$20,000 in Innovation grants in March 2007. The project report results will be posted to the NCAT web site later this spring. Check [www.ncat.org](http://www.ncat.org) in April for more details.

In 2008, there is much less funding available – between \$3000-\$4000. Rather than having an open request for applications, the Project will be making smaller, narrowly focused grants to some current grantees and possibly one past applicant. NCAT will announce 2008 awards in May.



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## ***Three early summer farm tours you won't want to miss:***

**May 28<sup>th</sup> at 2:00pm - The Wirth's Rocking Z Ranch north of Helena** Operation includes a biodiesel processor and irrigation engine that burns straight vegetable oil (SVO) and biodiesel. The tour is free but pre-registration is encouraged to get a sense of who is coming and what carpooling might be done. Call or e-mail Al Kurki (406-443-7272, [alk@ncat.org](mailto:alk@ncat.org)) for more details.

**June 20<sup>th</sup> - Bob Quinn Farm south of Big Sandy** Of interest to oilseed growers will be Bob's camelina and his NEW German oilseed press. The new press replaces the Chinese press folks may have seen at last year's tour. Fertility management, dryland vegetable production, fruit orchards will be other topics featured on the tour. Call Jim Barngrover at AERO, 443-7272 for more information.

**June 26<sup>th</sup> - Leonard Stone Farm near Geraldine** See Leonard's 4th year of growing camelina and wheat following camelina. We'll also have updates on oilseed crushers and biodiesel processors -- what brands to watch for. Call Sandy Courtnage at Montana Farmers Union, 452-6406 for more information.

These tours sponsored by the Oilseeds for the Future Project partners and NRCS.

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Government incentives to produce biodiesel and ethanol are updated on the DEQ web site ([www.deq.mt.gov](http://www.deq.mt.gov)) and can be located by selecting "biodiesel educational materials" in the center "what's new" column, clicking on "materials" again, selecting the Combined Federal government incentives or Combined State Government incentives documents.

*Be sure to complete the enclosed feedback form for a chance to win a free registration at the 08/09 Oilseed and Biodiesel Workshops!*

*The Montana Oilseeds Update 2008 was developed with funding from the USDA Risk Management Agency.*

