

## Biodiesel Demonstration Project

The BMCC Ag department in conjunction with OSU Extension Service, (Don Wysoki and Mary Corp) have a farm scale biodiesel demonstration project. This project was developed to simulate a farm size and scale of processing oilseeds into biodiesel. We are still in the beginning phase of this project as we experience the crushing and extraction of the oil and the making of biodiesel. A considerable amount of time has been spent fine tuning our extraction process and trying to maximize that part of the system. Many small batches of biodiesel have been made. We are making great strides to increase our output as we continue to work toward the project goals.



The project goal was to establish a research and development facility for BMCC students, the regional agricultural community, regional research and extension agencies, and the BMCC agriculture faculty to use for demonstrations, trials, research, and learning projects.

### Objectives of the Farm Scale Biodiesel project:

1. Operation and output of this equipment is our primary focus. Agriculture Department students and community members will have the opportunity to operate this equipment for training and educational purposes. Exposure to and study of a variety of processes and products are key elements of our project.
2. The project will support applied research on various commodities grown in the area to identify and analyze their processing characteristics, optimal production processes, and product quality. We also will conduct economic analyses and efficiency studies of different commodities and will raise test plots to study how the commodities may fit into local rotations.
3. This facility will allow the BMCC Ag Department to produce biodiesel that will be tested and used in farm machinery as warranty and repair permits. Our test machinery will capture fuel and filter out fuel system impurities as we use the biodiesel. We will disseminate data from research projects to educate the community on implementation issues and biodiesel production and use.
4. With the new facility, BMCC will provide both group and individualized training to farmers and students who want to incorporate biodiesel technology, products, processes, and systems into their operations.

An economic model and enterprise budget is one of our primary focuses for this project. We are continuing to develop this model as we learn more about the process and equipment efficiency.

Our equipment was purchased through partnerships with OSU Extension, The BMCC Ag Department and a couple of grants. An Oregon Department of Energy Alternative Fuels tax credit was received for up to 35% of total project costs. We utilized a “pass through” option for the tax credit. With this option, project owners may pass-through or transfer their 35 percent tax credit project eligibility to a pass-through partner with an Oregon tax liability for a lump-sum cash payment. We also received a Rural Business Enterprise Grant from the USDA that helped offset capital costs of equipment.

We are operating the biodiesel processor on Friday afternoons spring term. We encourage you to stop by the BMCC Ag complex and see what is happening! Stay tuned, as we continue to learn more about the production and use of biodiesel on a farm scale.