



Lorne Grieger, project manager with PAMI

Biomass, the fuel of the future

Rosebank Hutterite Colony was the first colony in Manitoba to switch from burning coal to biomass materials, and they never looked back. Not only is the system better for the environment, it is less expensive to run and required only slight modifications to their existing boiler.

“Coal was starting to get expensive,” says Levi Maendel, plumber at Rosebank colony and the driving force behind switching the colony’s heating system. “We had to drive nine hours every week to Estevan to get our supply.”

Biomass economical alternative

Only fifteen miles down the road, Maendel saw the solution. A greenhouse in Carman, Manitoba was burning biomass material instead of coal as a fuel source with positive results. An opportunity arose to take advantage of funding available through *Growing Forward* and the colony took it. They made the switch to burning biomass materials in 2009, a decision that Maendel estimates is saving them between

\$45,000 and \$50,000 a year.

The colony burns flax shives to heat a shop, four large barns and two small chicken barns. They go through about 1,200 tons of shives a year.

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“We were the first colony that started with the system but other colonies are now getting on board after coming and looking at our boiler,” says Maendel.

Innovations in biomass industry

Rosebank Colony recently received funding through *Growing Forward 2's* Manitoba Biomass Energy Support Program to

expand their system, removing a smaller boiler and installing a larger more robust one.

Maendel says the hang up for many people who would like to switch to burning biomass is the lack of available materials. The colony was fortunate to have a steady source located nearby, but not everyone is so lucky. However, there are many different materials that are suitable. Maendel says they have experimented with everything from wood chips to sunflowers with good results.

A potential solution to the lack of biomass material available is a system tested by Prairie Agricultural Machinery Institute (PAMI). The company developed and is testing a mobile densification system—a machine that compresses biomass materials such as wood, straw or reeds so that they are more efficient to store and burn. Wholly contained on a semi-trailer, the system is designed to be moved from field to field to allow the biomass to be processed where it is available.

“Our mobile densification system is especially important for people in Manitoba who are adopting a new fuel source to convert from coal which is being banned

due to its impact on the environment,” says Lorne Grieger, project manager, agricultural research and development with PAMI.

PAMI received funding for the research from *Growing Forward 2's* Growing Innovation – On-Farm program.

“We’re still testing the system, but we believe that it could be a feasible solution for producers in Manitoba for the future,” says Grieger. “It is definitely something we will keep improving and exploring.”

Switching to biomass

Eric Liu, business development specialist—fibre and composites with Manitoba Agriculture, Food and Rural Development (MAFRD) says he is always encouraging farmers to replace coal with biomass as it’s better for the environment.

He explains those interested in switching will need to make minor modifications to their regular coal boilers, and find a steady supply of biomass materials. ■

Manitoba Biomass Energy Support Program

Manitoba Biomass Energy Support Program, established in 2011, provides support in the transition to the processing and use of biomass for heating in place of coal. In particular, this program provides financial support for capital and infrastructure upgrades that are required to effectively manufacture or consume biomass fuel, including the expansion of existing facilities or development of new capacity.

A research and development component was added in 2014 to accelerate the adoption of innovations in biomass processing and use. Since 2011, this program has provided more than \$2 million to support over 60 projects including biomass boiler and storage installations and upgrades on colonies and farms, new processing facilities, and biomass research and development. ■



Controlling the damage caused by problem beavers

Beavers can create serious damage to farmland, blocking up waterways and creating flooding. With the help of the Growing Assurance – Farmland Beaver Damage Control program, farmers and other stakeholders can access support to remove problem beavers from their land.

The program incorporates several options for nuisance beaver management and provides tools to educate farmers and other stakeholders about lethal and non-lethal damage control methods.

It provides potential funding of \$15 for beaver removal, a maximum of \$750 for dam removal, a maximum of \$500 for pond levellers and a maximum of \$500 for beaver deceivers. Pond levellers and beaver deceivers are devices that allow water and fish through while making the area less attractive for beaver damming efforts.

Producers with problem beavers on either private agricultural land or agricultural Crown land should contact their rural municipalities, Northern Affairs Community Council or First Nation Community Band Council. ■