



Ferme Gétal

The environnement in the forefront

Claude, Louisette and David Gélinas

Fédération
des producteurs
de bovins
du Québec



Claude and Louisette Gélinas

began farming in 1975 when they bought Claude parents' dairy farm located in Beaudry in the Rouyn-Noranda region. They converted the dairy farm into a beef farm in 1986. More recently, Louisette sold her shares to David, one of the couple's five children. The father and son are now cow-calf producers with eighty-four cows, twenty-six replacement heifers and eighty calves. They cultivate 150 of the 270 hectares of land they own. The operation has been certified Bio-Écocert since the beginning of 2005.

The environment in the forefront

The owners of Ferme Gétal view the protection of the environment as an important issue. As confirmation of this, they have already improved many of their practices.

The Gélinas decided to use the electronic calculator developed by the Canadian Cattlemen's Association to assess the greenhouse gas emissions of their operation.

"We are working in harmony with the environment. The management of greenhouse gas is also part of our concerns", commented Louise Gélinas.

According to the calculator, the improvement of work methods at the Ferme Gélinas since 1990 resulted in a 35 per cent decrease in greenhouse gas emissions per pound of live weight gain. These results can be explained primarily by an improvement in the quality of feed resulting in a positive impact on the animals' feed conversion compared to 1990.



In addition, the estimates for 2012 show even more impressive results: the operation could emit 80 per cent less greenhouse gas per pound of live weight gain than in 1990. However, in this case, it is the planned project of acquiring new land that will contribute to this significant decrease.

The producers appreciated the experience of using the calculator and were pleased with being able to tell whether they were on the right track or not. "Apart from giving us information on our emissions, the tool has the advantage of letting us know what aspects need improvement", mentioned Mrs. Gélinas.



In collaboration with Centre de recherche et de développement en agriculture (CRDA)

Feeding, carbon sink and composting

The quality of the feed at the Ferme Gélinas contributes significantly to the effectiveness of the farm. Of the 270 hectares of the farm, 150 hectares are cultivated and the rest is comprised mostly of wooded areas. Approximately forty hectares are used for pasture, twenty-five for grain crops and the rest is divided evenly between hay and silage. In addition, the Gélinas harvest forty hectares of hay on neighbouring farms. Twenty five hectares of the prairie fields is reseeded



every year. The owners aim to renew their hay field every five or six years, which ensures good value to their forage.

Moreover, hay fields in their first or second year of production are used for silage because the product obtained contains more legume, which makes it more digestible for the cattle. The introduction of grain (oats) in the ration also had a positive impact on the animals' feed conversion.

With regards to pastures, they are managed on a daily basis. Every morning, the electric wire surrounding the pasture is moved to allow the herd access to fresh grass. At night, a

visit to the field is done to ensure that the animals will have enough forage until the next morning. If not, the wire is moved slightly.

All these practices allow for an improvement of feed utilization, optimize the rumination process and ultimately, enables the production of more meat and less greenhouse gas.

The owners of Ferme Gétal also hope to acquire more land in the coming years. The acquired land would be used for perennial crops and would act as carbon sinks, thus contributing to a significant decrease of gas emissions by the operation.

The manure accumulated in the barns over the winter is composted. The owners of the operation see many benefits to this practice. "The volume of manure to manage is reduced by half. There is less handling to do, thus saving time and fuel, which definitely decreases greenhouse gas production", explained Louisette Gélinas. Composting is not easy to master, but when it is done properly, it is a method that stabilizes nitrogen and consequently has a beneficial impact on the emission of greenhouse gas.

In the future, the family hopes to gradually continue the expansion of the herd. Their objective is to have 125 cows in the next two to five years. Of course, the expansion will be done while respecting the farm's philosophy: respect of the environment.

Greenhouse gas in agriculture: the facts

It is estimated that agriculture contributes approximately 10 per cent to the Canadian emissions of greenhouse gas. The greenhouse gases from farm origin come mainly from microbial activities: ruminants' digestion, manure and agricultural soil. Among these gases, there is nitrous oxide (N₂O), methane (CH₄) and carbon dioxide (CO₂).

Gas	Warming potential	Agriculture's contribution
CO ₂	1	<1%
CH ₄	21	38%
N ₂ O	310	61%



To try the calculator, contact the *Fédération des producteurs de bovins du Québec*
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