

QUEBEC NOMINEE FOR THE ENVIRONMENTAL STEWARDSHIP AWARD



Nominee Contact Information:

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Description of farm and operating environment

The Sage family settled on the south shore of Lac-Sainte-Marie and the east shore of the Gatineau River in 1846. The farm evolved from producing lumber to growing hay and raising horses for use in logging camps. The farm acquired dairy cattle around 1940, and cream was one of the farm's products for about twenty years. Since that time, a small Shorthorn herd has become the basis of the farm's beef output, with feeder calf sales bringing in extra income.



Photo 1: View of the farm on the shoreline

Stanley and Cheryl got married in 1975. After Cheryl's father passed away in 1984, the farm was registered as Ferme Sage and was run by Stanley Christensen, Cheryl Sage, and her mother Carmen Sage.

Some years later, the partners became Stanley, Cheryl, and their sons Ian and Eric Christensen, and the operation transitioned toward Red Angus production.



Photo 2: Stanley, Eric, Ian, and Cheryl Christensen

By 2022, Ferme Sage had a herd of 120 purebred Red Angus cattle. The farm now sells breeding bulls at two years of age, gestating heifers, and various beef cuts on the local market as well as ground beef to restaurants.



Photo 3: Part of the Red Angus herd

The farm property comprises 86 hectares of owned grassland in addition to 235 rented hectares; 80 percent of the area is forested. It is surrounded by cottages on the lake and river, a situation that has forced the owners to make certain decisions regarding how they develop their cattle operation. This decision-making has been, and continues to be, centred on a model of extensive production of permanent grassland.

In taking this approach, the owners involve community members, former producers, non-resident landowners, and new landowners who are willing to rent out their land for hay and pasture as partners in improving beneficial agri-environmental practices in the region.

Ferme Sage's priority is to continue demonstrating that raising beef cattle is compatible with maintaining a healthy environment and other land uses. At a time when the area is quickly attracting new cottagers, Ferme Sage seeks maintain agriculture's place in the community by employing sustainable practices.

Ferme Sage is a VPB+ certified operation.

Actions undertaken to improve environmental management

The owners are highly conscientious of the environment, and all their farming practices are in keeping with this perspective. The fields are kept in perennial grassland crops, which ensures that the soil is never bare. Grasslands have been planted extensively in all fields.

No tillage is used, which ensures maximum development of soil organic matter. The owners also place high importance on using buffer strips and respecting wetlands. The width they use exceeds the 3-metre minimum required by regulation. None of the animals are allowed to drink from any bodies of water; all pasture plots are instead equipped with waterers.

No chemical fertilizers or herbicides are used on the farm.

Animal manure is applied to the grasslands to add organic matter and nutrients needed by the plants to grow. When fields receive manure, a small amount of seed added to each manure spreader load helps sustain the millet and clover populations; this practice also allows orchard grass to be added for growth later in the season, which is used for pasture in the fall. This approach is appreciated by the owners of the rented land, who are happy to see their land maintained.

Mowing is limited to one cut of hay per year; this limit is in place to avoid the sapping of resources and to allow for hay in sufficient quality and quantity to keep the cattle fed over the winter. Late mowing is used on a number of plots to improve the survival rates of bird species that nest in grasslands.

The animals are raised with no antibiotics or added hormones, which ensures that none of these substances end up in the environment.

The use of farm machinery is limited to transporting and spreading manure and to harvesting and transporting hay. This approach reduces the use of fossil fuels and thereby limits the impact of greenhouse gases.



Photo 4: The use of farm machinery is limited to transporting and spreading manure and to harvesting and transporting hay

The region is hilly and surrounded by forest. Because of the presence of Lac-Sainte-Marie, animal wildlife in the region is quite diverse.

The owners of Ferme Sage always ensure pastures have mature trees, which give the animals shade and protection from the elements. They also provide roosting and nesting sites for many birds.



Photos 5a and 5b: Mature tree in a pasture to provide shade for cattle as well as roosting and nesting sites for birds

Do the actions undertaken involve all aspects of the environment?

Water:



With over 3.5 kilometres of shoreline, the operation makes water conservation a priority. The fencing around the pastures prevents animals from accessing any bodies of water. This ensures they cannot contaminate river, stream, or lake water. The farm's buffer strips are over 3 metres wide.

Soil is covered at all times by forage plants, which prevents erosion into neighbouring bodies of water.

Photo 6: Part of the 3.5 kilometres of buffer strips

The soil texture in the region is clay loam, and none of the fields have tile drainage. This minimizes the loss of nutrients into local bodies of water. Solar-powered pumps have been installed in all pastures to keep the waterers full at all times, which ensures constant access to drinking water.

Biodiversity:

The absence of pesticides in the grasslands has a positive effect on the diversity of the surrounding wildlife. The extensive grasslands foster the development of clover blossoms, which is a boon to insect pollinators.

In 2008, a conservation plan was developed in order to have the area registered as a biodiversity zone. Nearly 69 percent of the territory within the municipality is forested. The forests are mainly old-growth (trees aged 80 to 120 years) and mature stands (70 years) with very little history of logging, which makes for stunning landscapes. The hydrographic network is highly developed and contains a number of wetlands.

The forests and wetlands also host a number of wild animal and plant species, some of which are classed as threatened or vulnerable. White-tailed deer enclosures account for a significant proportion of the forested land.

The management practices used on the farm are fully in keeping with the regional biodiversity plan, which is designed to protect local wildlife.



Photo 7: The forests and wetlands host a number of wild animal and plant species

Soil and plant health:

All grasslands used for hay production receive manure in order to improve organic matter levels, enhance soil biology, and provide the nutrients needed by the plants. Each year, the farm receives permission from an agrologist to create manure piles in the fields in a manner that is both regulatory compliant and environmentally friendly.

The business does not produce enough manure to meet the needs of all grassland plots, so a rotation is used to ensure each field receives some manure every two to three years. While on pasture, the cattle naturally renew the grassland by spreading their waste and treading on the ground, which helps forage plants re-seed.

The owners inspect the fields regularly. If certain areas appear less productive, they use the overseeding method to target these areas. They use a four-wheeler equipped with a seeder to re-seed, and thereby rehabilitate, such areas. This is often done in combination with manure for optimal development.

Fertilizer management:

No chemical fertilizers are used on Ferme Sage, and the extensive approach to grassland management enables the owners to produce hay high in sufficient quality and quantity to meet the animals' nutritional needs. Grassland plots receive a rotation of manure in order to provide the nutrients needed for the growth of forage plants.

Keeping the soil in permanent grasslands promotes optimal root development and better soil exploration to capture nutrients; the resulting well-structured root network promotes a high level of biological activity.

Animal manure is managed on the fields in piles in keeping with recommended standards. No piles are created near bodies of water or in plots that are vulnerable to ponding or excessive moisture. The piles are never located in the same place in consecutive years; a distance of at least 100 metres is always maintained from year to year. The amount of manure used to form the piles is based on the calculated needs of the plants in the plot.

Air:

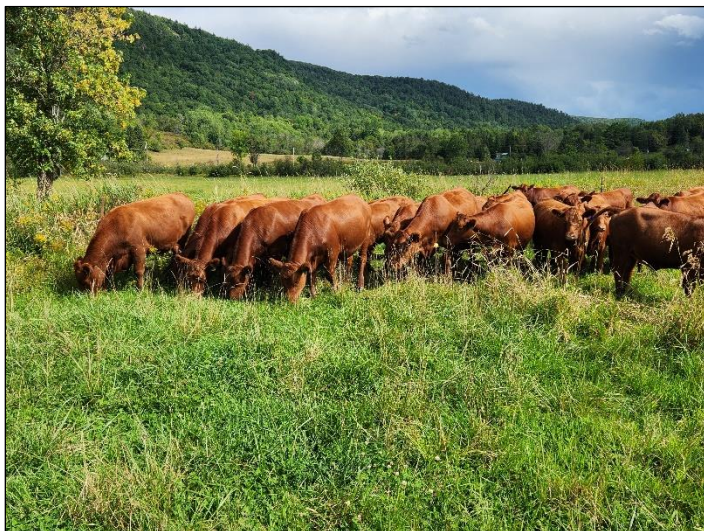
Ferme Sage is surrounded by forest vegetation, which makes for optimal air quality. Limiting the use of farm machinery considerably reduces pollution from fossil fuels.

The use of solar power to operate the waterer pumps further reduces the use of gas motors, thereby reducing GHG emissions.

Measurable results on Ferme Sage

Thirty years ago, in 1992, the owners set the goal of extending the grazing season to half the year: 183 days with no hay supplementation. This decision was made following the publication of a study indicating that farms surveyed in several parts of Quebec had a grazing season of 120 days or less.

To reach this objective, a large amount of electric fencing was installed, both on the owned property and on the rented plots. Since that time, the goal of 183 days or more of grazing has been attained in all years but three.



The use of a rotation on small plots and the establishment of multiple small herds spread out over three municipalities help extend the grazing season, during which the cattle have access to shade in summer and both the grass and the animals are protected in late fall.

Photo 8: The use of rotation over plots and small herds makes it possible to extend the grazing season

Managing the animals in groups has reduced problems with predators; Ferme Sage has noted fewer wolf and coyote attacks.

Preventing access to bodies of water and installing waterers has substantially reduced hoof problems, in addition to improving water quality for both cottagers and cattle.

The practice of cutting hay only once per year, combined with alternating early and late mowing, allows the farm's long-standing grasslands to remain perennial and has notably increased the presence of bird species.

When fields receive manure, a small amount of seed added to each manure spreader load helps sustain the millet and clover populations; this practice also allows orchard grass to be added for growth later in the season, which is used for pasture in the fall. This approach is appreciated by the owners of the rented land, who are happy to see their land maintained.

It is common to see wild turkeys, deer, and cows all sharing a field in late afternoon. In May, and again in August when plants are in bloom, insects are so abundant that they are audible from a distance.

Collaborators, programs, and other involvement

Ferme Sage is a member of the Club des services agroenvironnementaux de l'Outaouais (Outaouais agri-environmental services club). Ian has been passionate about environmental biology from a young age, so much so that he earned a bachelor's degree in this field before going into farming full-time.

Ferme Sage recently got a plastic bale wrap compactor as part of the plastic recycling project being led by the municipality of Vallée-de-la-Gatineau.

A member of the family has always served as a representative on the watershed committee that is responsible for the Gatineau River and for conservation around lakes in the region. Their objective has been to ensure that a voice for sustainable agriculture was always present.

Stanley sits on the Board of Directors of the Producteurs de Bovins du Québec (Quebec Cattle Producers), serves as president of the Outaouais-Laurentides cattle producers' syndicate, and is a member of the executive committee of the UPA Outaouais-Laurentides region. He also participates in numerous activities and expos in order to stay up to date on the best practices.

Environmental objectives for the future

The practices already adopted on Ferme Sage have created an exceptionally sustainable environment; the farm has operated continuously for 175 years and changed with the times. The owners of Ferme Sage see the water, soil, wildlife, cattle, and humans all as part of the environment and feel that observing and adapting to changes is key to the farm's future.

The farm's priority will always be to demonstrate its greatest asset: raising cattle selected for their suitability to the local climate and for their productivity, all while preserving a varied landscape of lakes, mountains, forest, and grasslands.



Photo 9: The priority at Ferme Sage will always be raising cattle selected for their suitability to the local climate, while preserving a varied landscape of lakes, mountains, forest, and grasslands

Climate change is sure to bring its share of new challenges, in which the farm's unique approach will prove critical to its future. Given that over 80 percent of the farm's territory is already bush, tree planting will not be the priority. A number of other options are available through the ALUS organization, which has a very active presence in the Outaouais region.

Ferme Sage is currently carrying out a project to calculate the amount of carbon that can be captured by the grassland and pastureland on the farm. Studies indicate that mixed grasses can be effective in capturing carbon and storing it in the soil while continuing to meet the needs of ruminants such as beef cattle. The owners of Ferme Sage are looking for partners to conduct soil measurements in grassland and pastureland and that have ways to improve them in harmony with nature. Maintaining constant cover, whether the soil is moist, dry, sloped, flat, located around trees or rocks, or trampled on by cattle, provides a favourable environment for many organisms. Securing financial compensation and having an official method to measure carbon capture would be welcome, but ensuring beef farming becomes accepted as an environmentally healthy and beneficial practice is essential.

Ferme Sage is also working on an ALUS project to inventory bird and bat species with a view to installing nest boxes for endangered species and helping the establishment of predators that eat insect pests. The owners have not yet determined the number of nest boxes to install as they plan to complete the inventory process before making any decisions.

They are currently applying to the "Program for the enhancement of biodiversity in agricultural environments," which is run by the Fondation de la faune du Québec (Quebec Wildlife Foundation).



Cattle have a very positive impact on the environment, and the members of the Ferme Sage family are doing everything in their power to keep it that way for their children and grandchildren—who happen to have the same hair colour as the herd!

Photo 10: The grandchildren have the same hair colour as the herd



Photo 11: Animal welfare in the herd

Environmental leadership

Ferme Sage frequently receives groups who visit the farm to learn about their agri-environmental and farming practices.

The farm site is located on a network of historical canoe routes that originally helped develop the province of Quebec. This brings out many visitors, including university groups. They also host children with learning and mobility problems. They are happy to show these people their beautiful property and tell them about how beef is produced in Quebec.

Many visitors come to the farm seeking to buy their meat directly. The owners use these opportunities to tell their customers all about the care they provide their animals and the sustainable agri-environmental conditions in which they are raised. Each visit is a chance to tell their fellow citizens about the importance of caring for the environment. They have hosted *Portes ouvertes* (open house) events on their farm on a number of occasions. They are exemplary ambassadors for beef production and sustainable farming practices, and proud of it.

Finally, Stanley reads widely about all the latest developments in agri-environmental practices around the world. He is always seeking ways to apply what he learns on the farm to improve biodiversity and the health of the soil, water, and air.

Letters of recommendation

- Letter of recommendation from the Club des Services agroenvironnementaux de l'Outaouais (CSAO)
- Letter of recommendation from the Outaouais regional office of the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation