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# La Revue **Holstein**Québec

### Prevention

Nothing happens so quickly as an accident! How can we change that?

**Troupeau Nelsondale** 

A big herd in a little barn

**Troupeau Pavue** Tanks Leading Lady





BY MICHEL DOSTIE Editor

Translation by Nicole De Rouin



or the organization that administers Quebec's occupational health and safety plan, the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), agriculture is an industry with a high risk of accidents. Likewise for insurance companies, well aware of the number of fires on farms (over 200 per year according to the ministère de la Sécurité publique) and that losses are inevitably substantial for both the farmers and their operations. So is there nothing that can be done? Although nothing happens so quickly as an accident, prevention can certainly help avoid the worst

"In 2019, there were 986 accepted employment injury cases in the agricultural sector, 98.4 per cent of which were for work-related accidents," writes Alexandre Dumont, head of communications for the CNESST's Direction de la prévention-inspection de la Capitale-Nationale et Centre-Nord. And that's without counting the accidents that occur on farms where there no employees, and hence aren't registered with the CNESST.

On the Commission's website (www.cnesst.gouv.gc.ca), accidents related to dairy cattle and production are listed in seven different categories. Those characterized as "caught in or compressed by equipment or objects" accidents accounted for 20.4 per cent of cases. The CNESST also provides a number of statistics for each category, including the average number of days absent from work by type of injury. (https://www.csst.gc.ca/prevention/risgues/Pa ges/vueensemble.aspx?SCIAN=112120&vue= PME). This data alone confirms the negative consequences of all these accidents.

Toxic gases develop as the silo is being filled. As a precautionary measure, avoid entering a silo for the first six weeks after filling. Thereafter, implement recommended safety practices, such as wearing a mask, when entering a silo is necessary. Prevention is a myriad of elements, both big and little, that breeders can focus on to avoid accidents, which include:

- · eliminating risks of injury or death;
- protecting their investments in
- machinery and equipment; and
- preventing fires.

#### Learn to be proactive

In the Eastern Townships, ambulance operator Sylvain Blanchard launched the company Ferme Médic inc. (www.fermemedic.com). After responding to a farm accident, he began to think about the possibility of developing specialized training for responders called to help farmers in trouble or even to save their lives. The project came together in 2011, and since then around 300 people, mostly firefighters, have taken the course. The training session has two parts, one theoretical, which instructors can dispense wherever the client wishes, and the other practical, which takes place on the farm or uses real farm equipment to recreate an actual farm environment.

The company is now ready to launch a more specialized training session on prevention, designed specifically for farmers, but the pandemic has put their well-intentioned plan on hold. In all likelihood, the course will be offered as soon as the health situation in Quebec allows it.

Michel Ouellette, a training instructor for the company, underlines the need to keep prevention top of mind. "Farmers are hard to convince," he says. Indeed, the demands of the job and the long hours required to do all that dairy producers need to do often leads them – unfortunately – to cut corners. People can become accustomed to danger, he adds, and that's when carelessness can set in. Yet, with proper work methods, the right environment, and equipment that meets industry standards, almost all accidents are avoidable.

According to Mr. Ouellette, a third of farm fatalities are due to tractor rollovers, either side rollovers while driving on a slope or too close to a ditch, or rear overturns that occur

# Farm Fire Prevention Committee

In response to the rising number of farm fires caused by electrical work, Promutuel has brought together various partners to form a committee for the prevention of farm fires. Fourteen businesses and organizations are involved in the committee, with members from insurance companies, the UPA, the MAPAQ and other government agencies, as well as the Corporation des maîtres-électriciens du Québec.

The Committee will soon be launching a pilot project aimed at:

- simplifying the inspection process by standardizing practices and visits;
- responding more to the needs of farmers while facilitating inspections in the context of fire prevention, health and safety, insurance and the like;
- training and educating stakeholders on the importance of prevention, in line with farmers' obligations and priorities.

Source: Hugo Morissette, NATIONAL Public Relations

when trying to pull out another tractor or machinery. Once the tipping point has been reached, it's too late to do anything. Fortunately, proper work methods, roll bars for tractors with no cab, and seatbelts are usually enough to avoid the worst.



Moving grain in a silo can bury a person in a matter of seconds.

Moving parts are also a frequent cause of accidents, says Mr. Ouellette, and these incidents "never cause minor injuries," because they almost always result in mutilation or death. Such accidents most often involve the power takeoff on a tractor, but also other moving parts, such as silo augers.

So it is very important to turn the power off and even lock the mechanism in some cases before approaching, so the equipment cannot move while it is being repaired, adjusted or unblocked. Likewise, keeping all the safeguards on transmission shafts, pulleys, belts, gears and chains is equally important. Finally, wearing close-fitting clothing, making sure laces and other cords are tied properly and hair is tied back are also sound preventive measures.

Animals can also cause accidents. According to the CNESST, 30 per cent of accidents unrelated to farm machinery are caused by animals. Knowledge of animal behaviour, staying calm, not provoking animals, making sure children are safe, using appropriate equipment, planning a quick exit from a confined space, and working as a team are the means recommended by the CNESST to protect against accidents.

#### Falls and other accidents

A bad fall can cause debilitating injuries and a loss of productivity. Keeping the premises in good order and eliminating clutter are a guarantee of safety. When working at heights, like in a silo, installing a lifeline on ladders and wearing a safety harness should be standard practice on all farms. The CNESST recommends installing guard rails and replacing ladders with stairs in highly frequented areas.

#### And the children

A farm is obviously a wonderful playground for children, and they might easily imagine they're safe in their family's backyard. But nothing could be further from the truth, and it is the parents' responsibility to make their children aware of the risks they face in their normal daily environment.

The CNESST, in partnership with the UPA, has published a number of documents intended for farmers to help them understand why and how to make prevention actions routine in different situations encountered on the farm. These documents, in French, are available on the CNESST Internet site [300\_418.pdf (tractor), 300\_436.pdf (moving parts) and 300\_415.pdf (animals)]. Such information is available, in English, on the Ontario Government site (www.wsps.ca).

#### Watch out for silo gases

Fermenting plant material produces gases, in particular carbon dioxide (CO<sub>2</sub>) and sometimes nitrogen oxides (N0 and NO<sub>2</sub>), which can cause death. These gases replace the oxygen in the air, making it toxic, and the agricultural community has experienced enough such incidents to confirm the fact. As Michel Ouellette underlines, although producers do

An example of a respiratory device that can be used to enter a forage silo.



need to enter silos for a number of reasons, nothing – not even an emergency – justifies doing so without taken the necessary precautions. The CNESST recommends that producers avoid entering silos during the critical period, the first six weeks after filling, but especially in the first 12 to 60 hours of fermentation. Ventilation is insufficient during this period, particularly if using a silage blower and especially if the silo is not full.

When opening or entering a silo after fermentation, it is essential to wear a mask equipped with a hose and air tank. That being said, adds Mr. Ouellette, a warning is required: if the user has a beard, the mask will not be entirely effective, which means contaminated air from the silo can reach the lungs.

#### Silos can also collapse

In addition to the dangerous gases they release, silos can also collapse, as we saw recently. Marc Larocque, Senior Loss Prevention Advisor for Intact Insurance, explains that insurance inspectors, like experts in such matters, are able to assess this type of risk. A trained eye can detect signs of deterioration in concrete. During filling, particularly if the silage accumulates more on one side than the other, the concrete can give way under pressure, causing the structure to collapse. Fortunately, if the problem is detected early enough, experts can intervene and do the necessary repair work.

#### **Caution in grain silos**

Grain silos are just as dangerous because the stored grain can pour down unchecked if the auger is running and a trap door is open. Grain behaves like quick sand and a person can be buried within a few seconds. If a leakage problem requires action or damaged grain needs to be removed, it is essential, says the CNESST, that the work be done from the outside. Entering one of these silos is not advisable, as grain dust can cause health problems such as farmer's lung.

#### Fire

Marc Larocque is formal: prevention definitely reduces the risk of fire. Prevention can take many forms. First, adequate maintenance of the facilities is a must. As an example, he mentions feed that falls to the ground when preparing rations: the ingredients dry out and quickly become flammable. Likewise, an overheating machine part can produce a spark or a hot piece of metal may fall and cause a fire. Dust and cobwebs accumulating around lights, meters or electrical panels can also set fire if a malfunction or overheating occurs.

Preventive action thus involves upgrading equipment and electrical installations. Standards change, says Mr. Larocque, and new products are now available that will help avoid the worst. Among other examples, he mentions water- and dust-proof PVC for electricity, which limits oxidation. Equipment used to prepare and handle feedstuffs should also be upgraded as required. As Mr. Larocque points out, this is even more important now that automation enables farmers to do other things at the same time. This means that there is no one around to notice a breakdown or the start of a fire. Equipment that is in good working order obviously poses much less of a risk.

#### Take advantage of new technologies

The majority of fires are due to electrical problems. Farmers now have access to new technologies offering better protection, such as those offered by PrevTech and Maximus. Some insurers encourage producers to use them, and may even offer a rebate on premiums.

Tony Rodrigue, at PrevTech Innovation, explains that the product his company sells should be regarded first as a supportive affiliation. It's not just an equipment monitoring system; it's also "a collaborative offer from a prevention-focused support team." As Karl Faucher, president of the Beauce Holstein Club, explained on Facebook recently, he received a cell-phone notice and an alert from a member of the PrevTech team about a problem that could have caused a fire in his barn. Fortunately, he was able to intervene in time. ■





BY MICHEL DOSTIE Editor

Translation by Nicole De Rouin



# Ferme Pavue Where it all began with Pavue Leading Lady

Ithough *Maloya Aero Lady*, GP-84-3yr 3\*, had contracts with a number of bulls, Tim Keenan decided to mate her with *Comestar Leader*, a decision that turned out well for him, his wife, Maria Enright, and Ferme Pavue, in Richmond. Indeed, that pairing engendered *Pavue Leading Lady*, EX 2E 15\*, a cow that gave birth to 38 daughters classified 89% GP or better, including 1 EX and 17 VG, and who, like her dam, saw three sons sold to artificial insemination centres.

#### THE PAVUE HERD

Herd: 130 head, including 10 Jerseys

Lactating cows: 68

**Holstein milk production:** 11 600 kg, with 4.3% fat and 3.4% protein

BCA: 253-275-272

Quota: 82 kg BF/day

Classification: 9 EX, 35 VG and 32 GP

**Crops:** The Keenan family grows 12 ha of silage corn and 24 ha of alfalfa to produce silage. These are used in equal proportions in a TMR, to which they add high moisture corn, soybeans, a supplement and hay (12 000 small bales). Dry cows and yearling heifers go out to pasture.

Not only was *Lady* prolific on the breeding scene, but she also made her mark in terms of production, with two Superior Lactation certificates and 68 208 kg of milk in five lactations. No surprise then that she is the most important brood cow for the Pavue herd.

Her most celebrated daughter is unquestionably *Pavue Lady Manat Mauve*, EX-91 4E 9\*, a finalist in the Favourite Cow contest in 2017. A credit to her dam, *Mauve* has a lifetime production of 119 436 kg of milk in eight lactations, with 4.3% fat and 3.3% protein, and is herself the dam of 12 daughters all classified GP or better, including 4 EX.

*Mauve* is not the only daughter to have also followed in *Lady's* footsteps where production is concerned. *Pavue Lady Inquirer Isabel* and *Pavue Lady Outside Olive* both classified VG-87 and produced over 80 000 kg of milk in seven lactations. Two other fine examples of *Lady's* influence are *Pavue Lady L Image*, VG-87 2\*, with a yield of over 75 000 kg in seven lactations, and *Pavue Masson Lavender*, GP-81, with two Superior Lactations. Pavue Modivator Ann, VG-88-3yr, is of the fourth generation demonstrating the qualities of this family. Descended from three EX dams bearing the Pavue prefix, this young cow won Best Udder at the Richmond Holstein Club Breeders' Cup last January. Her third lactation is projected to yield over 13 000 kg. Another of Lady's great-granddaughters, Pavue L Solomon Santana, VG-2yr, has projected BCAs of 317-293-317 for her first lactation and has already made her mark in the showring as third Intermediate Heifer Calf in Richmond, in 2018.

The herd also relies on *Rayon d'Or Duplex Lace*, EX-91 3E, purchased as an embryo and born in 2012. *Lace* is a daughter of *Lookout Goldwyn Lacie*, EX-92 3E 10\*, a cow that earned three Superior Lactation certificates and a Super 3, and a granddaughter of *Selbyvale Spirit Loggan*, EX-95 2E 4\*, a cow that produced over 77 000 kg of milk and was

awarded rosettes for the titles of Tout-Québec and Honourable Mention All-Canadian 4-Year-Old in 2005, as well those of Spring Show Grand Champion and Honourable Mention Tout-Québec Mature Cow in 2008. True to her origins, Lace is an excellent dairy cow, with a yield of 55 616 kg of milk in five lactations (240-239-257). Moreover, she is the dam of four daughters, two VG and two GP, that have projected mature equivalent milk yield of over 11 000 kg, with a remarkable 4.7% fat content. The farm has high hopes for her daughter Pavue Doorman Lilianna, VG-88-3yr, a cow that earned a Superior Lactation certificate at her first calving (BCA: 276-359-308). So strong is their conviction that Lilianna is already part of an embryo transfer program.

Finally, to highlight their son Devin's graduation from the Farm Management and Technology program at McGill University's Macdonald Campus, the breeders purchased three



Tim Keenan and Maria Enright, centre, have four children, from left: Brogan, Kianna, Ryley and Devin.



Pavue Leading Lady, EX 2E 15\*, produced 38 daughters classified 89% GP or better, including 1 EX and 17 VG. She also has two Superior Lactations to her name and a yield of 68 208 kg of milk in five lactations.

embryos from *Winright Goldchip Emoji*, a heifer born in 2018 and daughter to *Budjon-JK Wbrk Enthem*, VG-89 4\*, nominated All-Ontario Senior 3-Year-Old in 2015, and dam to 15 daughters, including 1 EX and 12 VG. The Winright prefix, from Winchester, Ontario, belongs to Maria Enright's family.

#### "We like the 100 000 kilo ones" (Devin Keenan)

At Ferme Pavue, the aim of the breeding strategy is to improve longevity, and the breeders intend to do that by focusing on conformation. Milk will come, explains Devin, "with healthy, well-fed cows."



Photo : Holstein Québec



Pavue Modivator Ann, a granddaughter of Pavue Leading Lady, brought home the title of Best Udder from the Richmond Holstein Club's Breeders' Cup in 2020.

Proven sires with a minimum conformation proof of +12 are high on the list for these breeders. The sires they select must have VG or EX cows not only in their pedigrees, but among their descendants as well. Likewise, they like bulls with daughters that stand out in the showring. "If you select from a family with four generations of GP, it'll be hard to get EX cows," Devin explains. As for production, the main emphasis is on fat content.

# Youth, the 4-H Club and kindergarten

Tim Keenan and Maria Enright are well known in youth circles in their region. Firstly, because their four children are active in the Richmond 4-H Club, taking part in the various shows, the provincial 4-H rally, the Jeunes Ruraux Classic, and even the Toronto show. Devin and Brogan also took part in Holstein Québec's Dairy Cattle Fitting School. But these parents are also familiar faces because they play a role in the Club's activities.

Their involvement with youth goes even further however. Indeed, for the past 20 years now, they have been welcoming the village's kindergarten children and their parents to their farm for a visit. There they learn about the many aspects of farm work, discover the animals (the farm is home to a number of species) and learn about where their food comes from. The children are thrilled, Maria explains. "They tell us it's better than going to the zoo."

Despite their preference for well-known sires, genomic sires are used for 25 per cent of matings, but selection is more rigorous and their families are closely scrutinized.

#### **Room for the next generation**

Timothy Keenan, who also completed a diploma at the Macdonald Campus, in 1984, and Maria Enright, his wife, took over the Keenan family farm when they married in 1997. The operation was already using the Pavue prefix then, and 50 per cent of the cows were purebred Holsteins.

The couple's four children all share in the farm work. Devin has already shown an interest in taking over the operation. In addition to his FMT diploma, he also completed a work placement at Marsfield Holsteins, in Alberta, where the herd is known for its high milk production. Brogan, who is currently studying at the Macdonald Campus and has also done an internship in Alberta, at Mosnang Holsteins, where dairy shows are a major focus, wants to become a producer as



Rayon d'Or Duplex Lace, EX-91 3E, is the dam of four daughters, two VG and two GP, that have a projected mature equivalent milk yield of more than 11 000 kg, with a remarkable 4.7% fat content.

well, but on another farm. In fact, there are no plans for the brothers to become partners in the family farm. "Our sons are good friends, and we'd like to keep it that way," their mother and father explain. Their other son, Ryley, is studying science and planning a career in teaching. Their youngest child, Kianna, is now in Secondary II.



From the bloodline of Pavue Leading Lady, three daughters of Pavue Lady Manat Mauve by Baxton



BY MICHEL DOSTIE Editor

Translation by Nicole De Rouin



## Ferme Nelsondale **"A big herd in a little barn"** (Francine Béliyeau)

In the 1800s, an American Loyalist named John Nelison (now written as Nelson) chose Kingsbury, near Richmond, to set up house and clear the land. Today, Douglas Nelson and his son Adam represent the family's sixth and seventh generations to operate the farm.

#### THE NELSONDALE HERD

Herd: 75 head, including 38 lactating cows

**Production:** 11 196 kg of milk, with 4.13% fat and 3.11% protein

BCA: 249-266-251

Quota: 54 kg BF/day

Classification: 9 EX, 18 VG and 15 GP

**Farmland:** 207 ha, with 110 under cultivation. The owners devote 12 ha to silage corn and 68 to clover and timothy harvested as silage and hay. An additional 30 ha are used for pasture for yearling heifers and dry cows. A TMR composed of silages and hay is supplemented with commercial feed containing 20% protein.

#### Sugarbush: 400 taps

Their purebred Holstein herd is much younger than that, however. In fact, it arose as a consequence of the ice storm, in 1998. Due to a malfunctioning generator and an unfortunate outside intervention to correct the problem, 17 animals were electrocuted and perished. Looking to replace them, Douglas Nelson followed the advice of friends and purchased a few good cows, four of which were purebred animals. He also looked into the origins of the other animals in the herd; although registration had been inconsistent, he knew that some of them were purebreds. He enrolled his herd on milk recording as well, and since then, the Nelsondale herd has continued to grow in both quality and size.

As the new herd was getting off the ground, Adam, then 11, discovered registration. To better understand the possibilities of the genetics world, he accompanied his uncle and godfather, inseminator Alain Béliveau, as he toured the farms. It was at this early age that Adam became acquainted with proof sheets, and that passion led to his first success. Indeed, Adam had a soft spot for one particular cow in the herd. "She was a beautiful spotted cow, and I wanted to mate her with a bull that was spotted as well," he recalls. "His parents suggested he run the idea by his uncle Alain, who thought it had potential. That mating

Photo : Frédérique Glaude-Roy



produced *NEL016 Leadership Perdy*, EX 2E 1\*, an animal that, despite being sold as a 2-year old, became the herd's first cow to be classified EX (NEL016 was the farm's prefix at the time).

#### A herd you want to see

Nelsondale Dempsey Jessica, EX-92 4E 4\*, is one cow that has had an appreciable influence on the herd. In addition to her third place in the 4-year-old class in Richmond, in 2013, she also recorded a Superior Lactation certificate as a 4-year-old, with BCAs of 296-302-319. In six lactations, she produced 73 335 kg of milk. Jessica is the dam of nine daughters, all classified GP or better, a group that includes 1 EX and 5 VG. Among them, Nelsondale Windbrook Juno, EX, obtained a Superior Lactation at her first calf: Nelsondale Solomon Jordanna, VG, has a projected milk yield of over 12 000 kg of milk for her first lactation; and Nelsondale Dormann Jenga, VG, has a projected yield of 15 000 kg for her third.

*Jessica's* granddaughters are also attracting attention: *Nelsondale Expander Jemima*, VG, with a 305-day yield of 12 932 kg of milk in her first lactation, and *Nelsondale High Octane Jaxie*, VG-3yr, with a Superior Lactation at the age of three.

The herd has also been shaped by *Nelsondale Buckeye Chanel*, VG-87 3\* (MS:90), the matriarch of a family known for good udders and high fat production. Chanel's daughters, *Nelsondale Fever Choco*, EX-92 3E (MS:93), with a 4.6% fat content over five lactations, and *Nelsondale Doorman Callalily*, VG-87 (MS:88), with an average fat content of 4.9% over three lactations, exemplify her strengths.

Two families are active in the Ferme Nelsondale operation. Standing, Francine Béliveau and her husband, Douglas Nelson. Front, Jessica Bryson and Adam Nelson and their two children, Maverick, 4 years old, and Tenley, 1. The farm also owns *Jacobs Unix Lightning*, a daughter of *Jacobs Fever Lydia*, VG-88. The heifer was obtained in exchange for providing recipient heifers to a friend who had embryos to transfer but no herd.

#### An interest in proof sheets

Adam's early interest in proof sheets has never waned, and he continues to follows bull proofs closely. So much so, he explains, that just before the proofs are released, he buys semen from bulls that are expected to rank high on the list, so that he can get what he wants before the prices go up.

The Nelson's select their sires with a focus on developing cows that will classify EX and produce 100 000 kg of milk by the age of 10. The family of *Nelsondale Windstorm Veronique*, VG 3\*, is certainly contributing to the cause. One of her daughters, *Nelsondale Manifold Reglise*, EX 3E, is an excellent example of what this family can do. With two Superior Lactation certificates and turning 10 this month, *Reglise*, now in her seventh lactation, is about to reach the 100 000 kg milestone. As Adam explains: "It's a family that can easily give six or seven lactations." One of *Veronique's* granddaughters, *Nelsondale Sid Rainbow*, EX-93 3E, produced a yield of 68 476 kg in five lactations.

To achieve their goal, Adam and his father choose sires from families that show no weaknesses. "We're not looking for +18, but we want a stable base of +12, +13, with good fat and milk production," Adam explains. In terms of conformation, they pay particular attention to the rump. He looks for a wide rump

# A family operation spanning seven generations

The Nelson family settled in Kingsbury, in the Eastern Townships, in the 1800s. In 1994, Douglas Nelson, backed by his wife, Francine Béliveau, joined forces with his father. Today, Douglas and his son Adam are equal partners in the operation and share the farm work, although Adam admits that his father is always the first one on a tractor.

Francine Béliveau, who grew up on a Holstein farm near Asbestos, works in the barn on a regular basis, taking care of the animals and ensuring their well-being. She particularly likes brushing, washing and even shaving them. She also maintains the milking parlour and the barn.

Adam, who has a diploma from McGill University's Macdonald College in Farm Management and Technology, is responsible for developing the herd, with a specific focus on genetics. His life partner, Jessica Bryson, an animal health technician, works off the farm but contributes to the operation by taking care of the bookkeeping and all that is computer-related.

Douglas and Francine have two other children, David and Sarah.

with the proper angle, to facilitate calving. This trait only counts for 12 per cent of a bull's proof, which is insufficient in Adam's view.

Adam used to focus solely on conformation and dreamed about the show ring. Now, however, his emphasis is on production. The sires he selects can be proven or genomic young bulls, although for the latter, he insists on deep pedigrees; otherwise, they're not on his radar.

The herd is divided into three groups. The top group is inseminated with sexed semen, the intermediate group with conventional semen, and the rest with Angus bull semen. Embryo flushes are no longer a part of their breeding strategy, since, as Adam explains, the herd now has a number of ideal cows, and the owners breed specifically from that group.

The interest in shows is still alive, but a shortage of time and staff prevent their taking part for now. On the other hand, as Adam and Jessica enjoyed taking part in 4-H shows, they hope their children will also have that opportunity. "When I think conformation, I always give a nod to the 4-H clubs," he says.

Photo : Holstein Québec



Nelsondale Manifold Reglise, EX, with a lifetime production of 100 000 kg of milk at the age of 10, represents the ideal cow for these breeders. *Reglise* was first in the 60 000 kgand-over class at the Richmond Holstein Club's Breeders' Cup in 2019.

Photo : Frédérique Glaude-Roy



Young Maverick and the heifer Nelsondale Mirand Jubilee P.



The brood cow Nelsondale Dempsey Jessica, EX-92 4E 4\*, was third 4-Year-Old in Richmond in 2013, and is the dam of nine daughters all classified GP or better, among them 1 EX and 5 VG.