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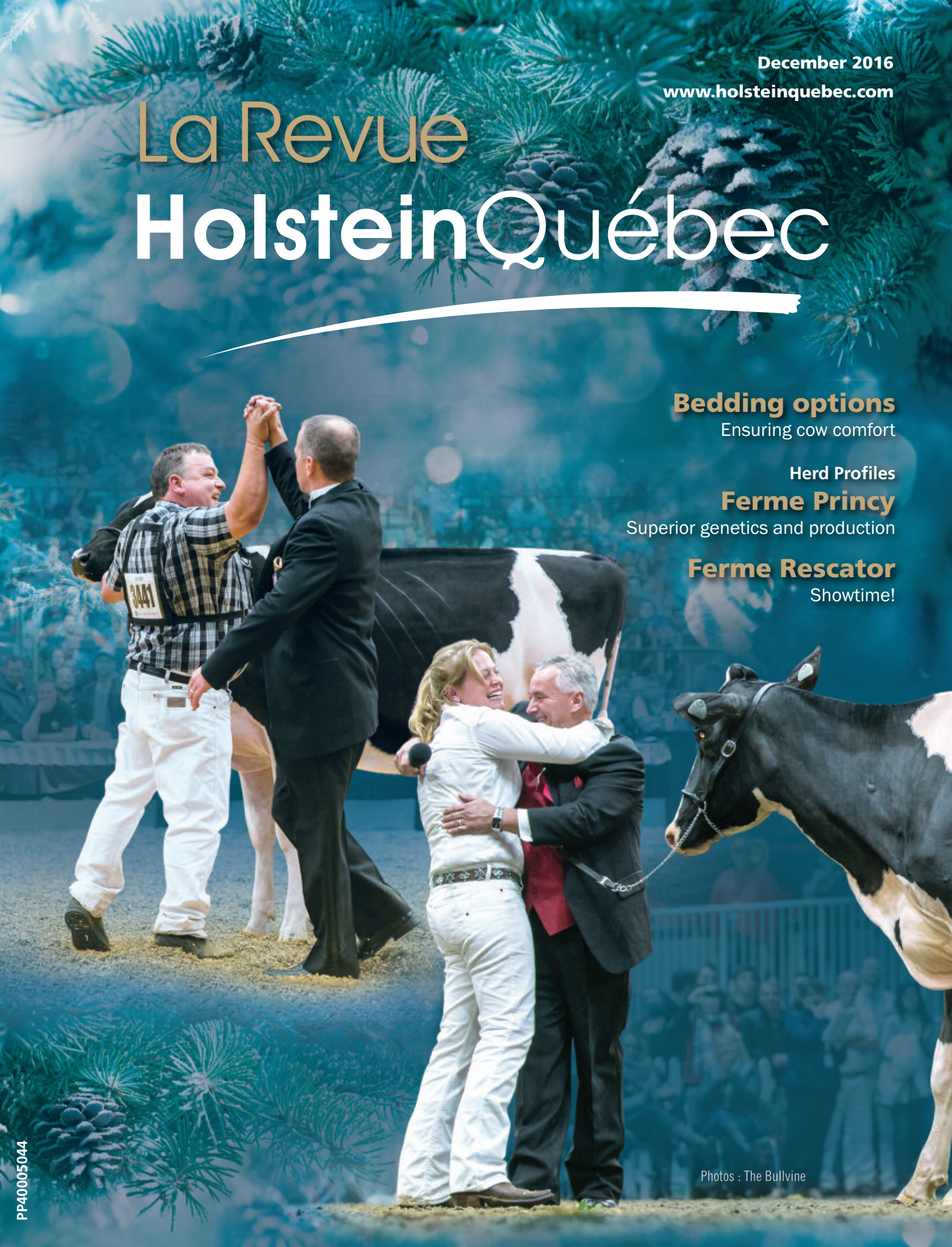
Bedding options
Ensuring cow comfort

Herd Profiles

Ferme Princy
Superior genetics and production

Ferme Rescator
Showtime!



Photos : The Bullvine

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By
Michel Dostie
Editor

Translation by
Nicole De Rouin

Ferme Rescator

A recent interest in shows

Although it wasn't the family farm, Bernard East took the plunge anyway, buying the operation in Palmarolle, in the Abitibi region, in 1988. He developed an interest in breeding and began registering his animals two years after acquiring the operation. In 1997, he enrolled in the classification program and began using his best animals to develop the herd. Today, the farm is managed by his son Jean-Sébastien and his partner, Élise Côté.

The breeders rely particularly on the family of *Rescator Bonair Sanja*, VG-86 3*, the dam of 2 VG and 2 EX daughters, one of which is *Rescator Stallion Sangria*, EX-91 2E, the first cow bearing their prefix to be classified EX and earn a Superior Lactation certificate. Now in her fourth lactation, *Sangria* has so far produced 60 103 kg of milk, with 4.5% fat and 3.4% protein. Another of her daughters, *Rescator Ludoplex Sacha*, VG-88-3yr, owned by Ferme Norrep inc., won second Senior Three-Year-Old at the Abitibi show last August.

Sanja's other EX daughter, *Rescator Lauthority Star*, EX-91, is also a good milk producer, with a yield of 39 000 kg in three lactations. In the showring, she captured the titles of Honourable Mention Grand Champion at the Témiscamingue show in 2015, and Best Bred and Owned and Best Udder among the five-year-olds, in Abitibi, in 2016. One of her daughters, *Rescator Doorman Scarlet*, won first Senior Heifer Calf and Junior Champion at the Témiscamingue show this year, in addition to first Senior Heifer Calf and Honourable Mention Junior Champion in Abitibi. For the owners of the *Rescator* herd, the *Sanja* family contributes on two fronts, milk and type. Hence it's no surprise that her daughter Star was the first cow the breeders chose to use for embryo production.

Rescator Mystery Outside, VG-87 2*, also plays an important part as the dam of six natural daughters, including four VG. Her granddaughters are now influential in the herd as well. According to Jean-Sébastien, the family is particularly known for its outstanding udders. *Rescator Windbrook Minnie*, VG-88-3yr, is a fine example, with 89 points for her mammary system. Not only did she win Best Bred and Owned and Best Udder among the four-year-olds in Abitibi last August, she was also named Reserve Grand Champion. Moreover, her daughter *Rescator Atwood Mia*, VG-86-1yr, is also reaping honours, winning the title of Junior Champion in Témiscamingue in 2015, Honourable Mention Grand Champion in Témiscamingue in 2016, and first Junior Two-Year-Old, Best Bred and Owned and Best Udder in Abitibi, in 2016.

Élise and Jean-Sébastien, with *Rescator Stallion Sangria*, EX 91 2E and a Superior Lactation, along with Charlie Brown.

The future also rests on the success of the family of *Rosiers Braban Triumphant*, EX-93 2E 6*, a cow renowned in Canada for her show results, in particular her All-Canadian Senior Two-Year-Old nomination in 2006 and her titles of All-Canadian and Tout-Québec Senior Three-Year-Old in 2007. Élise Côté, Jean-Sébastien's partner and Jocelyn Côté's daughter, owned a share of one of the daughters of this cow, but because the owners of Ferme Rescator inc. are not

Two Rescator herds

Number of Holstein animals and cows: 50 head and 25 cows
Average Holstein production: 10 769 kg of milk, with 4.24% fat and 3.32% protein
BCAs for the Holsteins: 240-280-249
Holstein classification: 2 EX, 15 VG and 8 GP
Number of Jersey animals and cows: 50 head and 24 cows
Average Jersey production: 6 813 kg of milk, with 5.3% fat and 3.9% protein
BCAs for the Jerseys: 230-224-234
Quota: 47 kg
Cropland: 202.3 ha, with 60.7 ha seeded to oats (for seed or for sale as grain) and 141.6 ha devoted to grassland mixtures of alfalfa and timothy and clover and timothy that are harvested as silage and hay. Part of the hay is sold to horse owners.

Ferme Rescator inc.

After graduating with a diploma in Farm Management in 2004, Jean-Sébastien became a co-owner of the farm in 2007, sharing 50 per cent of the shares with his father. The two men share the work as well, with Jean-Sébastien in charge of the herd while his father takes care of the field work and maintains the machinery, in addition to breeding Canadian horses.

Although Élise Côté is not a shareholder in the operation, she has been living on the farm with Jean-Sébastien since 2012. She works four days a week as a farm consultant for Coop Val-Nor, now amalgamated with Coop Profid'Or, but always makes sure she is at the farm for milking. That schedule may change soon, however, as the couple is expecting a baby in February.

***Rescator Ratou Thunder*, VG-89, won honours at a number of shows, including, as a four-year-old in 2007, Honourable Mention Grand Champion at the Holstein Québec Spring Show and Honourable Mention Tout-Québec.**

interesting in co-ownership, Élise traded her shares in *Comco Damion Boumba*, EX-91 2E, for four of her embryos and one of her daughters. The embryos were a success, resulting in the birth of two heifers by *Goldwyn*.

While the breeders sell 10 to 12 cows a year to local buyers or through the Abitibi Holstein Club auction, they do not sell their heifers. This was not the case in the past, when they sold *Rescator Ratou Thunder*, VG-89, a heifer that went on to perform well at many shows, winning, among other titles, Honourable Mention Grand Champion at the Holstein Québec Spring Show and Honourable Mention Tout-Québec in 2007, at the age of 4. Unfortunately, she was sold at a very young age and left no heifers in the herd, an omission the breeders would like to avoid in the future.

Making room for shows

Jean-Sébastien admits that shows were really not a big draw for him. Élise's arrival put a new light on the scene, however, and she was able to transmit her passion for the showring to her partner, which led them to take part recently in two shows in the Abitibi-Témiscamingue region, where they enjoyed a few triumphs. To add to those already mentioned, *Rescator Fever Jady* brought home first Four-Year-Old, Best Bred and Owned and Best Udder as well as Grand Champion, Champion Bred and Owned, first place in the Breeder's Herd class, and the Breeder Banner from the Témiscamingue show, in 2016. The Champion Bred and Owned title only came into existence at this show three years ago, and to date has always been awarded to Ferme Rescator. The Rescator results at the Abitibi show were equally convincing, where, in addition to the firsts and championship titles mentioned above, the Rescator farm placed first in the Progeny of Dam and Dam/Daughter classes and second in the Breeder's Herd class.

Judicious sire selection

Because longevity is a priority, conformation is top of mind for Jean-Sébastien and Élise when it comes to selecting sires for their cows. Jean-Sébastien stresses that their selection is done on a cow-by-cow basis to eliminate any specific weaknesses a cow might have, since they "want a herd that is as uniform as possible." The breeders thus prefer proven bulls with a conformation proof of +15. That principle is easy to justify, they say, because a poor choice of mate can do significant damage in a small herd like theirs. The second criterion they use for their selection is milk components, since they have noticed that the cows that have the highest fat levels are those that last the longest in their herd.

Young bulls with a genomic index are used for 15 to 20 per cent of their services, but must come from good families, which increases their reliability, and have a conformation proof of at least +17. Jean-Sébastien and Élise also want to see the daughters of these young sires before making a decision.

Thanks to all the attention they give their herd, these breeders are able to fulfil two especially important dreams: first, to be able to breed a cow for high-level performance at major dairy shows; and second, in the long term, to earn a Master Breeder shield.

Diversifying with Jerseys

With a view to getting as much use as possible from his barn, Bernard East tried out a few Jerseys in 2002. The experience was a positive one for the operation, and today the Jersey breed makes up half the herd. The breeders are particularly proud of *Rescator Joel Google*, VG-87-1yr, third Milking Senior Yearling at the Supreme Dairy Show, in 2015, and nominated Tout-Québec Milking Yearling. ■

***Rescator Lautority Star*, EX-91, produced 39 900 kg of milk in three lactations, and won Honourable Mention Grand Champion at the Témiscamingue show in 2015 and first Five-Year-Old in addition to Best Bred and Owned and Best Udder in her class in 2016.**

By
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Ferme Princy inc.

Where genetics and high yields prevail

Just about everything in the Abitibi region is recent, which explains why Bertrand Bégin represents only the third generation on this family farm in Sainte-Germaine-Boulé, north of Rouyn-Noranda. The farm owes its existence to Bertrand's grandfather Ormidas, the pioneer who left Sainte-Germaine, in Dorchester County, to clear new land on lots allocated by the Colonization Department. His son Gilles took over in 1964, and invested to modernize the operation. Bertrand has been operating a highly productive Holstein herd since 1980, and his children, Mylène and Alexandre, will be the next generation to take over the reins.

Armed with a diploma in farming, Bertrand returned to the family farm in 1980. His education inspired an interest in breeding, and he soon became a member of Holstein Canada and enrolled the herd on milk recording. Confident in his son's abilities, Gilles entrusted Bertrand with the job of managing the herd. Bertrand's first objective was to improve production, and he began to think about buying a few good cows.

In 1983, his father gave him a budget of $3000, and Bertrand acquired four new animals. Unfortunately, he came in over budget and had to write a postdated cheque and visit the Caisse the next day to borrow the difference. *Frech Persistente*, VG 1*, was among that foursome, and became the head of a good cow family. Her great granddaughter *Princy Charles Picote*, EX 2E, was the first cow under the Princy prefix to be classified EX.

In 2008, the herd took a new turn when Bertrand began purchasing embryos. Two such embryos from *Stepido Super Mega* produced two heifers by *Shottle*: *Stepido Super Star Shottle*, EX-91 2E, and *Stepido Super Girl Shottle*, VG-88. Super Star went on to earn two Superior Lactations and was also active in the showring, bringing home, among others, the title of Intermediate Champion and Grand Champion from the Abitibi show, in 2013. Her first daughter, *Princy Super Shiny Fever*, VG-86-2yr, with a Superior Lactation, was sold recently and is now at the Centre de production d'embryons Damythier.

As for Super Girl, she earned a Super 3, with three Superior Lactations in as many calvings, and is the dam of *Princy Super Fancy Fever*, EX, herself the dam of *Princy Super Windy*, VG-86-2yr. Besides a Superior Lactation at 1 year and 10 months, *Windy* won first Milking Senior Yearling and Best Udder at the Abitibi show in 2015, in addition to Reserve Intermediate Champion and Honourable Mention Grand Champion.

Two ways to improve the herd

One day, a veterinarian from Amos proposed his embryo transfer services, and the Bégin family decided to use the technique with their best cows. *Princy Goldwin Evangeline*, VG-87-3yr 4*, with a Superior Lactation, was the first to produce an embryo flush. She is now the dam of 11 daughters, 6 VG and 5 GP.

Super Star was brought into service as well, of course, and two heifers by Fever were born from her first embryo flush. The eldest of the two is now expecting her first calf. One of the daughters born from Super Star's second flush, *Princy Dempsey Super Nova*, won the title of Reserve Junior Champion as an intermediate heifer at the Abitibi show last summer. Super Star recently produced an excellent flush of 23 embryos sired by *Dempsey* or *Gold Chip*, followed by another of 31 by *Jacoby*.

Ferme Princy inc.

Number of head: 95
Number of cows: 57
Production: 12 949 kg of milk, with 4.0% fat and 3.1% protein
BCA: 277-293-280
Classification: 4 multiple EX, 2 EX, 26 VG, 25 GP
Quota: 75 kg
Cropland: 246 ha, with 125 ha seeded to oats for sale and 121 ha to a clover and timothy mix harvested as silage and hay.

Ferme Princy inc. is particularly well known for its herd's outstanding productivity. Inset: part of the herd with the udder (on the right) of *Princy Alfredo Miky*, EX-92 2E.

Bertrand Bégin and Lucie Desaulniers, with their daughter Mylène (far right) and their son, Alexandre, and his partner, Jessica Belisle, along with their daughter Élyane, nine months. Their son Gabriel, two and a half, was absent when the photo was taken.

***Stepido Super Star Shottle*, EX-91 2E, earned two Superior Lactations, and was active in the showring as well, winning Intermediate Champion and Grand Champion at the Abitibi show, in 2013, among other titles.**

Herd improvement has also been contingent on purchases that Bertrand Bégin has made at the auctions held by the Abitibi Holstein Club, which he attends each year. In 2002, he acquired *Lorka Marker Mila*, VG-87-3yr 2*, a cow that produced 93 195 kg of milk in eight lactations. She is the dam of four daughters, including *Princy Champion Mylen*, EX 2E, first Senior Heifer Calf at the Abitibi show in 2005 and dam to four daughters, two VG and two GP.

Princy Alfredo Miky, EX-92 2E, one of *Mila's* granddaughters, is living up to the family's reputation with two Superior Lactations. Her daughter *Princy Gold Chip Mystik* won first Intermediate Heifer Calf in addition to Junior Champion at the Abitibi show last August.

In 2003, Bertrand acquired *Lorka Leduc Eva*, VG-88, who produced 67 722 kg of milk in four lactations, earning three Superior Lactation certificates and a Super 3. She is the dam of three daughters, including *Princy Mr Sam Evangelique*, GP-83-2yr 1*, a cow that produced over 37 000 kg of milk in three lactations. Her daughter *Evangeline* was the first cow in the Princy herd to be used for embryo production.

Two ways to improve the herd

Mylène, who is in charge of the herd, says she favours proven bulls. The decisive factor for selection is a conformation proof of at least +16, but she says milk yield and fat content are also important. "My father would never let me use a sire with a negative proof for milk or fat, even with a conformation proof of + 20." Not to fear: she in fact insists on a production proof of at least 500.

Mylène occasionally makes room for genomic young bulls in her sire selection, but only on the condition that they have proven parents. Those whose parents have only genomic proofs won't make the cut.

Through his efforts to improve the genetics of the herd, Bertrand Bégin has always focused on increasing production. The herd's diet is composed mainly of a timothy and clover mix harvested as silage and stored in stacks, a practice implemented in 1980 that has shown good results (see box). Alexandre Bégin explains that the forage is grown in a drained, rock-free, clay soil. The ration is supplemented with a mixture of grain corn and supplements, fed six times a day. Dry cows and yearling heifers, however, are fed a hay-based ration.

In 2002, the breeders took another important step, building a new barn to improve cow comfort. Bertrand Bégin says the decision led to an increase in annual production of 2000 kg of milk per cow. ■

Ferme Princy inc.

Ferme Princy inc. now has four shareholders: Bertrand Bégin and his partner, Lucie Desaulniers, as well as their children Alexandre and Mylène. The couple also has another daughter, Joanie, whose partner is François Galarneau, of Ferme Galar, recipient of a Master Breeder shield in 2015. Alexandre, who has a diploma of vocational studies in dairy production, has been a shareholder since 2011. Involved in all aspects of the operation, he is chiefly responsible for the farm machinery and the field work. Mylène has a diploma in Farm Management and is mainly in charge of herd management and genetics, a passion she discovered at the Holstein Québec Convention held in Abitibi, in 2008, when she attended a youth workshop on Master Breeders. After graduating, she travelled for a year, heading first to RockyMountain Farm in Alberta, and then to Australia, where she worked for five weeks at International Dairy Week. Mylène developed a taste for travel early in life, spending a summer in British Columbia, at the Deken farm, when she was 15. She is also a director and Web administrator for the Abitibi Holstein Club.

Bertrand, for his part, keeps an eye on feeding and veterinarian care, while Lucie Desaulniers works off the farm as a finance and human resources manager for Techni-Lab S.G.B. Abitibi inc. Gilles Bégin, Bertrand's father, continues to play an active role on the farm, in particular in the field work and exterior building maintenance.

Bertrand Bégin has plans to retire in five years. By that time, he says, "I will have accomplished my goals and I'll have finished paying for the barn I built in 2000." He will also have had time to transfer his expertise to his children, and will be sure they are able to successfully manage the business.

By
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Bedding

A matter of comfort and health

A wide variety of materials can be used as bedding for dairy cattle. Breeders generally focus on comfort and health when choosing bedding for their animals. Although mats and mattresses have certainly contributed to improvements in that respect, the general consensus is that bedding is still necessary.

In terms of health and comfort, bedding materials must meet a certain number of criteria: they must absorb moisture, fecal matter and the odour of ammonia, have a low dust content, provide cushioning for the cows, whether standing or lying down, provide good traction to ensure the cows can rise and lie down easily and, lastly, be clean. Bedding materials must also be inexpensive, easy to handle and store and, once used, be suitable for use as a crop fertilizer. While many options are available, no material is perfect; each type of bedding has its advantages and disadvantages, in addition to specific management requirements.

Straw continues to be widely used as bedding. Produced on the farm, it is easily accessible and provides both comfort and adequate moisture absorption. Mixed with feces, it also constitutes an efficient solid fertilizer. Sawdust and wood shavings are popular choices as well, and the major suppliers say they are able to offer a specially dried material for good quality bedding. These materials provide comfort, are free of contaminants and tend not to stick to cows. Wood by-products are also biodegradable and can be used as fertilizer, although some nitrogen will be lost to the wood decomposition process.

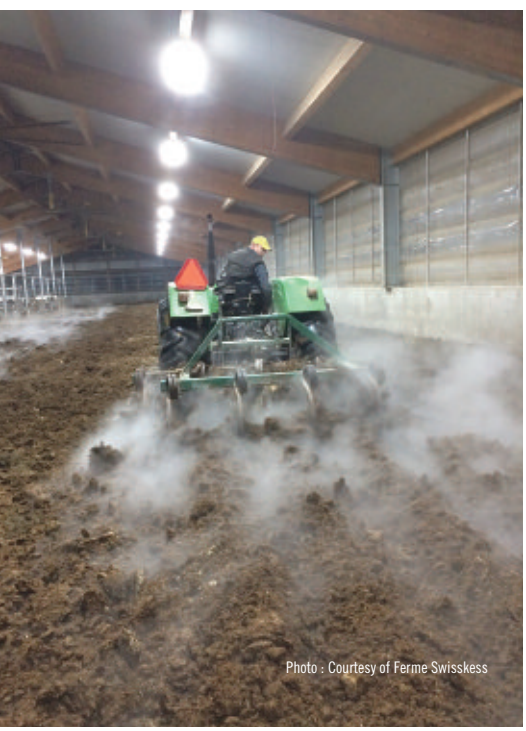

Photo : Courtesy of Ferme Swisskess

The compost pack is tilled twice a day.

With the increasing size of dairy herds, the growing popularity of free-stall housing, and the ever-increasing emphasis on animal comfort, other bedding options have been developed and are now in use.

Compost bedding pack

The popularity of the deep-bedded pack has been on the rise for some time now. The owners of Ferme SwissKess, in Clarenceville, chose this option for their new barn built in 2015 to replace their old free-stall facility. Their first goal, says Anthony Kessler, was to improve the comfort of their cows, and he is pleased with the results of the new system.

The first condition of success with a deep-bedded pack is to provide a surface area equivalent to at least 110 sq. ft. for each cow. This is more space than is required in a free-stall barn and thus entails higher construction costs. On the other hand, Anthony explains, because no stalls or manure-handling equipment are required, the total investment is more or less the same.

To start, a foot-deep layer of sawdust is spread over the barn floor. Sawdust is favoured because it is composed of fine particles that are readily compostable. According to the literature, comparative trials show that sawdust gives better results than straw or wood shavings.

A compost bedding pack requires little work, says Anthony. To promote composting, the bedding must be tilled twice a day with a tractor equipped with a chisel plow, and each run takes 10 minutes. Since the bedding pack composts more readily in the summer, it may be necessary to reduce the amount of heat it generates by incorporating 25 per cent soybean straw or peat moss in the sawdust. Fans with 20-ft blades are also installed on the barn ceiling to create a light breeze that keeps the bedding dry and ensures greater comfort for the cows. Breeders can also add more sawdust to the mix if the bedding is too humid, particularly in winter. Twice a year, the compost pack is removed, either partially or entirely. On the Kessler farm, they removed 1/3 of the pack after the first winter and spread the rest over the entire floor space, and then top-dressed with sawdust, to provide a base for the new season.

Anthony affirms that the improvement in cow comfort is noticeable. He says the cows are calmer, which translates into higher dry matter intake and increased production, and that the somatic cell count has also decreased. Moreover, reproduction problems are now the reason for culling some of the cows. Foot injuries and lameness are no longer factors that force them to get rid of a good milking cow. In the long term, the family thus expects to see an increase in cow longevity.

Lastly, Anthony explains, composted bedding-pack manure represents added value for crop fertilization. Moreover, because the product is dry, it is much lighter, which means there is less risk of soil compaction during application.

Recycled manure solids

Manure can also be used as bedding to enhance cow comfort because the material is dry and so resists compaction. It can be used in both open-housing and conventional barns. Already popular in Europe and the United States, the practice was first introduced in Quebec in 2007.

The concept involves two distinct steps: first, a screw separator or roller press is used to remove most of the liquid contained in the bedding and the manure. This dewatered material, composed of undigested feed, is then composted, either naturally or with a composter.

Because a separator is less costly (1/3 of the total investment) than a composter, breeders often opt for natural composting, although the operation does require some attention. The separated manure solids must be turned daily with a tractor for at least four days before the composted material can be used as bedding. Patrice Proulx, from Beaudry équipements laitiers, stresses however that this method requires meticulous management. First, a storage room in the barn is a necessity, because the dewatered solids reabsorb moisture quickly when exposed to air, rain or snow. Moreover, the mixing must be done systematically for a prescribed number of days, because it is the composting operation that eliminates the pathogens contained in the manure and produces clean bedding.

The task is simplified with the use of a drum composter. The manure solids come out of the press and are automatically fed into a rotating drum composter. The heat released by the organic matter, along with the air that is pushed into the material with a fan, ensures that composting takes place. After about 24 h, the composted material can be returned to the barn and spread out as bedding.

Because the process requires handling manure, many breeders worry about the presence of bacteria that could be detrimental to udder health. This is not a concern, however, because the composting actually eliminates a good part of the bacterial flora. A study conducted by the Cornell Waste Management Institute, at

Photo : Courtesy of Ferme Croteau

The cows seem to appreciate the comfort of recycled manure solids.

Cornell University, showed that the number of cows with a somatic cell count of over →

200 000 was the same whether cows were housed on sand bedding or dried manure solids.

Danny Croteau, of Ferme Yves Croteau et fils inc., in Upton, has both a separator and a composter, and says the results are impressive. The product is completely dry, keeps the cows clean, has no unpleasant odours, and provides good cow comfort. A setup of this kind obviously requires a substantial investment, but the payback period is relatively short. Mr. Yvon Vincent, from Distribution VYF, says that any producer spending $20 000 or more on bedding can justify the investment. Smaller herd owners who need to update their manure handling and storage system may also be able to save money with this approach.

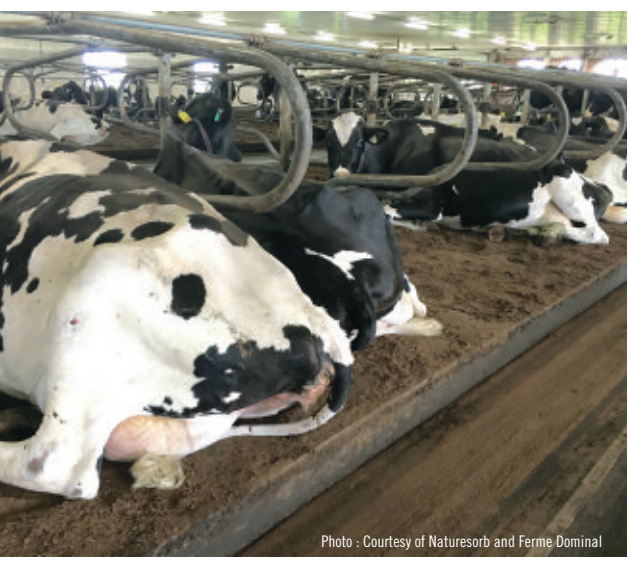
Photo : Courtesy of Naturesorb and Ferme Dominal

Peat moss bedding ensures comfort and cleanliness.

An additional benefit is that the liquid removed from the manure also has value as fertilizer. As Mr. Vincent explains, it contains a certain percentage of organic matter, because some of the fibres are broken during the dewatering operation and the finer particles are removed with the liquid.

Sand

When the owners of Ferme Bergeroy Holstein built a new barn in 2014, they opted for sand bedding. Claude Bergeron says they were initially influenced by the practices of American breeders. “It seemed normal for them,” he says, explaining that Americans aren’t paid much for their milk and so they need to keep production efficient.

But this method also has its constraints. First, it requires Class A sand, based on Transport Ministry standards, which means it contains no soil and has a specific particle size. It must also be screened to remove any small rocks that could injure the cows’ hooves. Breeders interested in this option thus need to have a source of such sand near their farm. Because access to sand is often difficult in winter, Claude Bergeron recommends storing sand in an outbuilding or under a waterproof tarpaulin.

In the 300 free-stalls at Ferme Bergeroy, refreshing the bedding every week requires the equivalent of a 10-wheeler load of sand. The sand in the deep stalls is loosened and levelled daily using a cultivator installed on a Bobcat, a procedure that takes about 30 min a day. Mr. Bergeron also underlines the importance of well-designed free stalls, to ensure that the cows lie down in the right place and are less likely to defecate in the bedding.

Obviously, some of the sand ends up in the alley and must be scraped up. In the manure pit, the solids settle at the bottom. The liquid is removed in the spring whereas the solids are used in the fall. Because sand is abrasive, it is hard on the equipment, particularly rakes, but manufacturers have now developed more resistant options.

The Bergerons say they are satisfied with their choice of system. The cows are comfortable, can get up and lie down easily, have no knee or hock injuries, and are always very clean. Moreover, because sand is inorganic, it does not support bacterial growth and so is good for udder hygiene. It is also inexpensive, says Claude Bergeron, who uses 100 loads of sand per year. At $50 a load, transport not included, the savings on the purchase of bedding are more than enough to compensate for the wear and tear on the equipment.

Peat moss

Known to be more absorbent than wood shavings or straw, peat moss that is specially prepared as bedding is also becoming increasingly popular. Because it contains few or no pathogens, peat moss is advantageous for animal health. Used in generous quantities in compost bedding pack systems, in both free-stall and conventional facilities, peat moss enhances cow comfort. ➔

Because there are three types of peat moss, it is important to choose the one that is intended for use as bedding. Peat moss sold for horticultural use has a different pH and may contain other products, such as lime, making it less suitable for bedding purposes, explains Anthony Arsenault, from Meunerie Victo, a distributor of Naturesorb, a peat moss that is specially prepared for agricultural use. The low pH (3.8 to 4.2) of this product makes it less favourable to bacterial growth. It does not stick to the animals and controls odours by neutralizing ammonia, in addition to promoting healthy udders, feet and legs. Because this material is very dry, it absorbs excess humidity and makes the building more comfortable.

Moreover, peat moss does not compost and so generates no heat, an advantage during the summer months. On the other hand, if the building is cold in winter, it will freeze, in which case the distributor recommends that peat moss be used in combination with other materials, rather than alone. Finally, because it is composed of organic matter that is already composted, it has no acidifying effect on soils. Depending on how peat moss is used, the cost is comparable to or less than that of straw or wood shavings.

Photo : Courtesy of Ferme Bergeroy

The sand bedding is loosened and levelled daily.

Keep bedding dry

There are a number of products on the market that can be used to control moisture and dry out bedding. These products are generally spread on the floor before the bedding is added, and can be top-dressed every two or three days. Made from clay, they capture ammonia and also contain essential oils that help maintain a pleasant smell in the barn. According to Dominic Frappier, a representative for Mistral, a product sold by Jefo, using his product could reduce the amount of bedding required by up to 10 per cent. It may also generate benefits in terms of udder and foot and leg health, particularly by preventing bacterial growth. ■

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Peat moss
Explanations for the use of these products can be found on many suppliers' Internet sites.