Express
Regional agricultural magazine

September 2017

The Co-op Agrodor

La Coop Novago:
Update on progress to date, and profiles of our new partners

Since the very beginning, members have been at the heart of all our deliberations. When La Coop Univert began merger negotiations last fall, it was important for our Board of Directors to find partners which met the following criteria:

- Cooperatives that, like us, work with the goal of prioritizing the interests of their members
- A partnership that favours cooperatives with similar core activities to ours, in the ruminant sector, in crop and grain production, as well as being in the retail market
- The project will need to mobilize our human resources and promote staff retention, which plays a key role in our success

After a careful analysis of these considerations and taking into account our past successful intercooperation experiences, the Board of Directors decided in November 2016 to undertake a number of merger talks with cooperatives on the North Shore of the St. Lawrence River, specifically Profid'or, St-Ubald, Agrivert and Agrodor. La Coop St-Ubald withdrew from the project, so we continued our efforts with the other three cooperatives to create La Coop Novago.

The progress made since this decision is significant: the Boards of Directors of the four cooperatives have given their approval to the merger discussions, the working committee has gone through all the negotiation steps, and has proceeded with the drafting of the merger agreement in preparation for the Special General Meetings which were held at the end of June and beginning of July 2017.

Although everything went very quickly, the working committee took each step of the negotiations very seriously and we came rapidly to consensus on several points, which confirmed that we had made the right choice of partners for this promising project for our members.

If you wish to obtain additional information, do not hesitate to contact Jasmin Gibeau at the following email address: jasmin.gibeau@lacoop.coop.

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Magasin du Fermier inc.
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Express
Crop Production

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Rations With High Levels of Corn Silage: An Option Worth Considering ?

Every now and then we wonder about rations with high levels of corn silage. This is an option worth examining and considering. However, as with any feeding strategy, the benefits and drawbacks of this solution must be understood. Prior to addressing the question, let's define what a high corn silage ration is. To each his own, but for this article, let's agree on the following definition :

STANDARD RATION : A ration containing equal parts corn silage and haylage, usually around 15-16 kg each on an as-served basis

MODERATE RATION : A ration containing 30kg of corn silage, as served

HIGH LEVEL CORN SILAGE RATION : A ration containing 38kg of corn silage, as served

- Corn silage with grain content between 40 and 45% provides a lot of energy in the form of starch
- Harvesting corn silage is time efficient and allows for the ration to be stable all year long provided sufficient storage facilities are available.
- Post-fermentation, the grain in corn silage becomes more digestible, so a high corn silage ration allows you to limit the inclusion of high moisture and dry corn.
- This type of ration allows the herd to be fed fermented feed all year long. Going from fermented to fresh silage has significant impact on rumen digestibility and can greatly affect milk production and composition. High level corn silage rations present the advantage of more easily managing ration stability.

DRAWBACKS TO USING RATIONS WITH HIGH LEVELS OF CORN SILAGE

- Corn silage is known to have low mineral levels, notably potassium. Low potassium levels are beneficial for pre-calving rations by decreasing positive ion intake (dietary cation-anion balance or DCAB) to prevent post-calving hypocalcaemia. However, for milking cows, potassium is important for rumen pH stability and therefore maintaining butterfat tests. Consequently, potassium supplementation is necessary to achieve a DCAB between 300 and 350 meq/kg DM.
- Corn silage is not a source of protein (less than 9%). All high corn silage rations require an elevated level of protein incorporated from crushed oilseed by-products and corn by-products. In a context where oilseed meal prices rise, high corn silage rations become extremely expensive.
- Corn silage's fibre content is lower when compared to haylage, notably NDF fibre (which is 10% less) and its fibre is less efficient. A high corn silage ration often requires incorporating straw. This calls for very high-quality straw (mold and toxin-free) that is suitably chopped to limit segregation.
- A high corn silage ration (particularly after 6 months of fermentation) can result in spikes of highly digestible starch in the rumen. Every association of an elevated level of highly digestible starch in the rumen with sources of unsaturated fats (e.g. distiller's grains, raw soybeans....) will cause a rapid drop in butterfat tests. The Réseau La Coop now offers AGIR (Acides gras insaturés dans le rumen- Unsaturated fatty acids in the rumen) to monitor levels and control any drop in butterfat tests.

UNSATURATED FATTY ACIDS IN THE RUMEN (AGIR)

The main unsaturated fatty acids found in dairy rations are oleic acid (C18:1), linoleic acid (C18:2) and linolenic acid.

Corn and soy oils are excellent sources of oleic acid while green chop and flax seeds are richer in linolenic acid. When these unsaturated fatty acids occur in the rumen, the majority are transformed by bacteria into saturated fatty acids that are less harmful to fibre digestion and to microbial flora. However, if rumen pH is too low, this biohydrogenation of unsaturated fatty acids will be altered and can produce intermediate fatty acids that harm milk fat synthesis. For this phenomenon to occur, both conditions must be met: optimal rumen condition and presence of polyunsaturated fatty acids. To better assess this second risk factor, the lab now offers C:18:1, 18:2, and 18:3 analyses for feed. The sum of all three gives an idea of the unsaturated fatty acid content in the rumen.

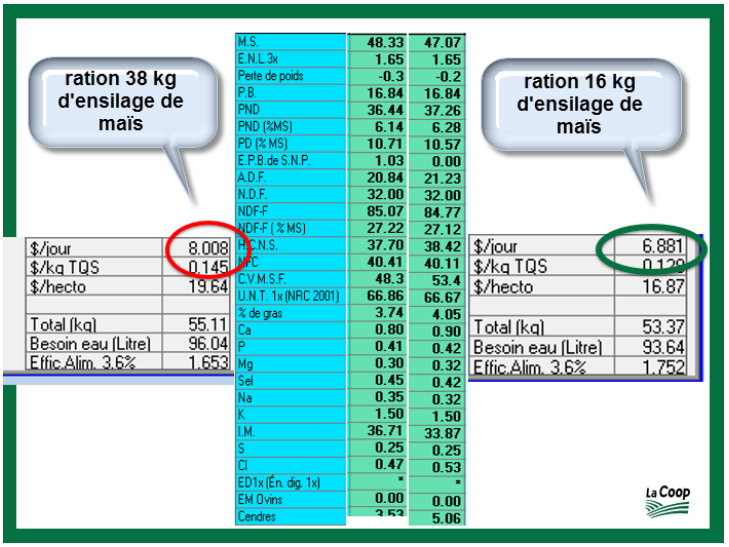
Ask your expert consultant
Annick Delaquis Ph.D. agr.
Dairy production nutritionist-Ruminant Section

AT WHAT COST?

In comparing all rations and considering corn silage deficiencies for protein, minerals, potassium, etc., for identical nutrient rations, high corn silage rations will be somewhat more expensive.

However, you should also take into account the fact that higher yields per hectare for corn silage allow for acreage to be freed up for other uses; for example, a 100-cow herd would allow for nearly 50 extra acres to be devoted to other crops such as soybeans. For moderate rations, the cost gap is smaller when compared with a ration with equal proportions of corn silage and haylage. In this case, for a 100-cow herd, over 35 acres would be freed up. Considering stability, palatability and acreage advantages, a moderate ration (28-30 kg corn silage) appears to be the most practical cost-wise. Contact your La Coop expert consultant for an assessment based on all factors using technical-economic decision-making tools.

This being said, standard or high level, the fundamentals remain the same. Good dry matter, a conditioning index over 80%, addition of a suitable inoculant, acid on top of the silo or an oxygen barrier, and good recovery throughout the year, are the key factors to success.



What's Your Corn Silage Assessment ?

By Patrick Vincent, Dta.
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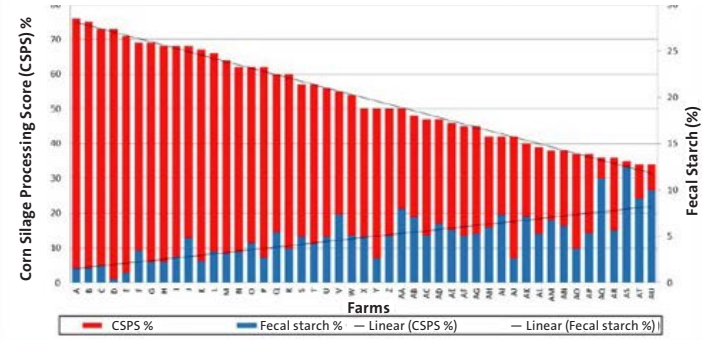
With current levels of animal performance, each detail is important. So, for high-producing animals, it goes without saying that this is even more true for what you feed them.

One of the main sources of energy and starch in rations is grain corn. We know that moisture content and grind size directly impact the energy available to cows. With a larger grind size, more starch goes straight to the manure pile without being utilized.

TABLE 1 – RESULTS OF % FECAL STARCH AS A FUNCTION OF THE CORN SILAGE CONDITIONING INDEX FOR EACH FARM (N=47)



A study by Bramanen's team in 2015 shows the importance of silage conditioning (Table 1). When comparing samples from different farms, researchers proved that the more effective the conditioning, the lower the amount of starch in the manure. It can be concluded that the cows then use corn silage more efficiently for production or rebuilding their body condition.

This is a quantitative method to evaluate your own or your custom operator's work.

CSPS	CORN SILAGE CONDITIONING
At least 70%	Optimal
Between 50% and 70%	Adequate
Less than 50%	Inadequate

Trip to Vermont
From November 6th to 8th 2017

We are all the same

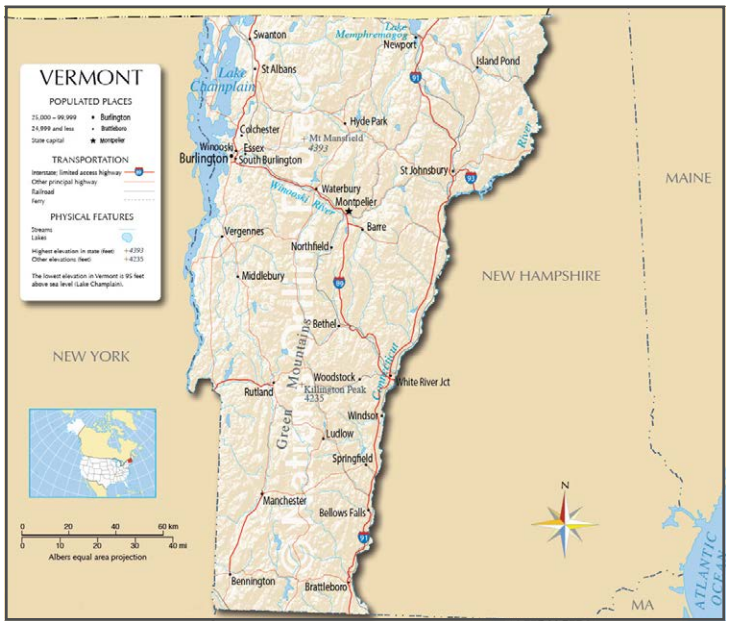
Considering the context and political debate surrounding the negotiation of the free trade agreement with the United States, it may seem difficult to ask American dairy producers to open their doors to Canadian dairy producers. Yet it is with enthusiasm that several good dairy managers will welcome us with open arms next November 6th to 8th.

It is with great pleasure that we have organized an interesting program for progressive dairy producers. You will have the opportunity to visit efficient herds of similar size and whose technical know-how can translate to our Canadian situation. These are all farms that are proud to retain local labor. It will also be an opportunity to interact with producers who welcome us with open books on their technical and economic performances and who manage to strive despite the great variation in milk prices and inputs.

So do not wait!

Book your spot immediately on this roadtrip :

IN VERMONT TO REACH NEW HEIGHTS !



Here's a preview of what awaits you from **November 6th to 8th !**

November 6th 2017

Departure at 8:00 a.m. from Casselman, ON with stops in Beauharnois, QC at 9:30 a.m. and at La Coop Unifrontières in Napierville, QC at 10:00 a.m..

Visit #1: – owners: Dale, Don & Dan Tetreault, Champlain, NY

- 650 cows, production : 91 lbs/c/d, 3,94%F, 3,2%P
- 700 acres; all heifers raised off-site by custom operators; custom hired crop harvest; focus on cows; 3 brother partnership; new transition cow barn

Visit #2: MINER INSTITUTE – Chazy, NY

Research Farm who's areas of focus include the crop-animal-environment interface, cow comfort and behavior, and equine reproductive management. Presentation by Dr. Rick Grant, PhD in Animal Nutrition, President.

Lunch served on site.

Visit #3: DIMOCK FARM – owners: Bruce & Donald Dimock, Peru, NY

- 278 cows, production : 75 lbs/c/d, 4,1%F, 3,3%P
- 525 acres; strong production; very high testing Holsteins; new barn facility; labor efficient

Arrival at the Sheraton in Burlington
Supper and surprise activity !

By Marie-Philip Brisson, agr.
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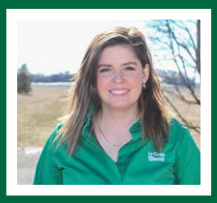

November 7th 2017

Conference Brunch

Bill Zweigbaum[1], Certified Agricultural Consultant from Farm Credit East : " Insights and perspectives of the future in agriculture! "

- Presentation of the North East Dairy Farm Analysis results
- American perspective in comparison to Canadian farms
- Economy of sector for NY and VT states
- Evolution of farms in North East states

Luc Gagné[2], agr., consultant for the Agricultural Management Group in Ontario and Dominik Desrosiers[3], agr., agricultural consultant for Groupe Agri-D : " How do our farms compare to the North East Dairy Farmers in the USA "

Coop team[4] : " Key factors to greater performances "

Dr. Jérôme Carrier[5], DMV, MSc, PhD, technical consultant in dairy animals, Elanco, Animal Health : " See the big picture for prevention of transitional diseases in dairy cows "

Visit #4 CONANT'S RIVERSIDE FARM – owner : David Conant, Richmond, VT

- 400 cows, production: 85 lbs/c/d, 4,05%F, 3,1%P
- 800 acres, solid example of well-run dairy farm; diversified into retail summer crops (sweet corn, pumpkins, etc.)

Visite #5: SHELBURNE FARMS, Shelburne, VT

- Personnalized tour, Wine & Cheese tasting

Return to hotel and free evening on Church Street in Downtown Burlington, VT

November 8th 2017

Continental breakfast (hotel departure at 8:30 a.m.)

Visit #6 : NORTH WILLISTON CATTLE COMPANY – owner : Onan Whitcomb, Williston, VT

- 240 cows, production : 95 lbs/c/d, 3,65%F, 3,00%P
- 500 acres; robotic facility; high percentage family labor; investigating new possibilities all the time (solar, methane)

Visit #7 : COPPER HILL FARM – owner, Kurt Magnan, Fairfax, VT

- 550 cows, production : 87 lbs/c/d, 3,50%F, 3,08%P
- very strong reproduction program; one new cow barn; labor efficient with 60 cows per employee.

Return home at 3:00 p.m. at le Coop Unifrontières and at 6:00 p.m. in Casselman.

This trip is organized jointly with the Ontario Agricultural Management Group (AGAG) and the Agri-D Group.

Costs are valued at a maximum of $ 525 CAD / person which includes the majority of meals, accommodations and transportation.
(if there is overcharge, we will refund you after the trip)

Limited places, book before October 2nd with:

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613 524-2828, poste 222
ginette.carriere@lacoop.coop

Marie-Andrée Grégoire
450 427-2003, poste 11511
commande.moulee@unifrontieres.coop

Important ! Please ensure that your passport is valid !

By Hugues Ménard, TP
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More Fat ? Yes, Please !

Amongst all the questions asked by producers over the last 6 months, by far the most popular is: "How can I increase my butterfat test." The real question, however, should be: "How can I increase the kilos of fat produced per cow."

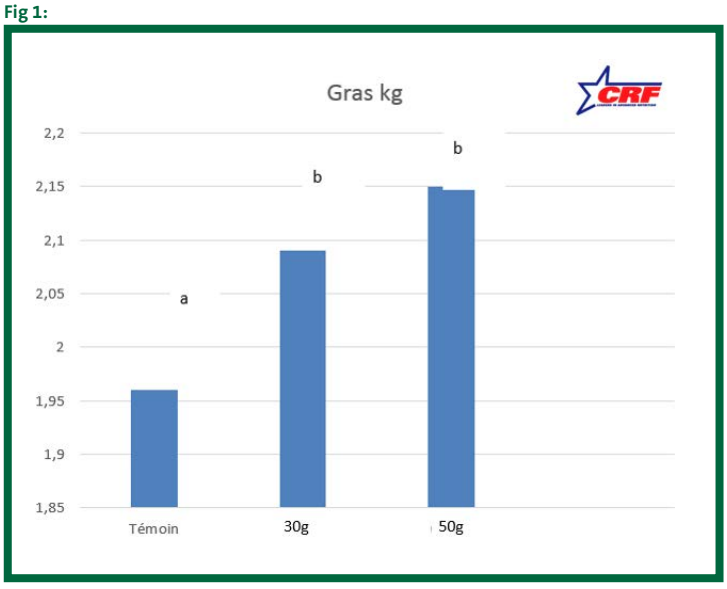
THE ARA CONCEPT (RUMEN AVAILABLE ACIDS)

As you know, there is no miracle solution that can guarantee the same results on all farms: adding fibre, maximizing intake, attention to unsaturated fats, limiting fermentable starch - you've heard it all before.

Let's first understand where milk fat comes from, it will then be easier to decide on a personalized strategy, and maybe even the adoption of the ARA concept that we will present. Milk's main fatty acids (FA) are classified into 3 categories: 1-FA chains with 18 or more carbons, 2-Medium FA chains with between 14 and 16 carbons, and Short-chain FA with fewer than 14 carbons. Long-chain FA are completely synthesized upon entering the mammary gland as they arrive from the digestive tract or fat reserves. At the beginning of the lactation period, the mobilization of fat reserves accounts for a substantial proportion of milk fat. Short-chain FA are produced by the mammary gland, with acetic and butyric acids, as precursors, produced in the rumen. Medium-chain FA fall in between the two; some are blood-extracted by the mammary gland and some are produced by it.

When fat sources are added to rations, we mostly add long and medium-chain FA. To increase short-chain FA, we need to maximize fibre use as its fermentation produces the largest quantity of acetic acid, used as a precursor for these FA. In trying to produce kilos of butterfat, we naturally want to produce kilos of milk; so we feed concentrates and, in doing this, we can negatively affect fibre intake.

Fig 1:



An optimal starch-NDF balance needs to be found to maximize milk production and composition, and this balance can be very different from one farm to another for all sorts of reasons. However, research done by CRF (Cooperative Research Farms) has allowed La Coop to introduce its line of ARA concept products which work to optimize the function of a rumen that is well supplied with starch, and to maximize the supply of the precursors necessary for butterfat synthesis in the mammary gland. (fig.1)

The results are convincing. The ARA concept somehow protects the rumen against significant pH variations and ensures a good supply of precursors, in turn allowing the mammary gland to produce butterfat. The product resulting from CRF research has been proven to work.

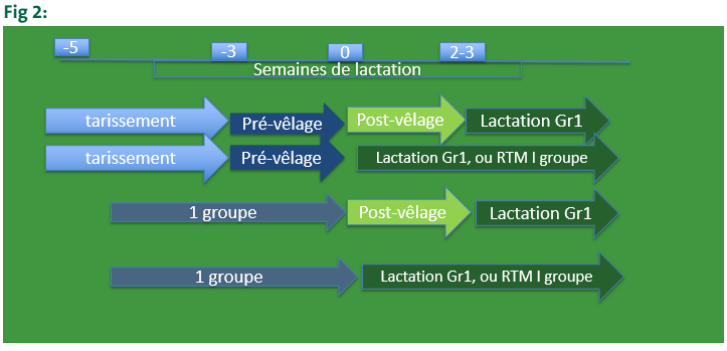
Optimizing rumen function using this concept may also be applied for pre-calving. One of the main challenges of the transition is moving from a high fibre/low starch ration, to a lower fibre/higher starch one. This is even more of a challenge when only one dry-off ration is used for a single milking group (fig.2).

Indeed, if we only need a few grams of minerals during the dry period, moving to more than 12 kg of concentrates at peak lactation, this a big challenge! For this reason, a drying-off ration is often fed, followed by a more concentrated pre-calving ration and, if possible, a post-calving ration to facilitate the transition.

The ARA concept allows better preparation for the transitioning rumen by mitigating the effects of increasing starch in the ration. Moreover, by protecting the rumen against significant pH variations, the concept contributes to maximizing the percentage and kilos of butterfat production.

Talk to your expert consultant who can tell you more about the ARA concept and help adapt the strategy for kilos of butterfat for your operation.

Fig 2:



By Nancy lamothe, Agr. FAC
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How to prepare for a building project ?

Sometimes the answer to an easy question is complex. Preparations for building can be simplified with a clear vision and mission statement to fall back on. Why do we want to build ? Is the next generation on its way ? Is the next generation involved in decision-making? What about quality of life ?

The first step is to establish a budget. There is no right or wrong way, it all depends on your needs and objectives. Whether you're leaning towards robotics, a milking parlour, or a tie-stall barn, it is essential to visit different types of buildings to see what kind of milking system best suits your needs.

Then, a step too often neglected, you must actually try different systems for a few days at a time, to explore and experience the benefits and drawbacks. Don't hesitate to ask for recommendations from your nutrition and financial network to find out who might welcome you for a demonstration. Consider experimenting outside your region, where methods can be different.

While visiting new facilities, try to meet with people at different stages of their projects. First impressions within three months of inaugurating a new building are likely to change several months later. Return to visit after six, then nine months.

When you've made a choice, you must recruit an engineering firm to put the plans in your head down on paper. Remember that at the drawing table stage, costs are at their lowest. A good engineer will ensure that environmental standards are met and, if required, will help you with your certificate of authorization (CA). Current delays for the Montérégie region are long enough and the process can require several months before receiving a response.

At the preparation stage, the recipe for success is taking the time to meet with the different people involved with your farming operation to validate your plans and final cost projections. The people who you work with on a regular basis know your farm and can help you weigh the pros and cons in making equipment decisions. When it comes to reducing costs, nothing is better than a good brainstorming session to find ways to do things differently.

The preparation stage also includes planning animal and quota purchases. Asking yourself the right questions is critical: Is this a one-stage project, or for financial reasons, do we need to break it down into two stages ? If moving from tie to free stall, how can you prepare yourself and your animals for this change ? How will you manage breeding ? How will you manage hoof-trimming ? In finding answers to these important questions, you solidify your project's foundation.

Common challenges include :

Going over budget: plan for 15-20% above your initial budget (excavation, electricity, and for each time you say: While we're at it, we might as well...);

- Not paying enough attention to breeding and animal health during construction;
- Necessary animal purchases, for increasing production or for replacements that don't adapt to the new facilities;
- Establishing investment priorities as a function of the potential gains or savings that can be achieved.

Good preparation is the cornerstone to your project. Your new building and chosen system will determine your way of life for the next 20 years, so best to think it through and plan. In planning your project over two or three years, you will allow time to make the right decisions and to better manage change. The objective, of course, is to have fun and to enjoy your new facilities as soon as possible.

Express
The Select 750 club, still growing !

Initiated in 2010, the Select 750 club aims to recognize and create opportunities to interact between producers who stand out for their superior productions. It is with great pleasure that we announce the customers with The Co-op having obtained more than 750 combined BCA in 2016. Eleven new producers join the club this year. It should also be noted that three producers in the region obtained a combined BCA of 900, reaching the prestigious 300 club!

Will you be part of the club next year ?

Coop	Farm name	City	Prov.	Breed	Milk	Fat	Proten	Average	TOTAL
La Coop Unifrontières	Nieuwenhof et Associés inc.	Dundee	QC	HO	305	315	304	308	924
La Coop Ste-Marthe	Ferme Guyette & Fils SENC	Saint-Clet	QC	HO	305	312	304	307	921
The Co-op AgriEst	Ferme Serheal	Saint-Isidore	ON	HO	302	309	299	303	910
La Coop Ste-Marthe	Ferme Robert Séguin et Fils	Sainte-Marthe	QC	HO	286	308	297	297	891
The Co-op AgriEst	Ferme Lavigne	Sainte-Anne-de-Prescott	ON	HO	293	297	286	292	876
The Co-op AgriEst	Ferme Frédéric Ltd	Plantagenet	ON	HO	281	304	285	290	870
La Coop Unifrontières	Ferme Val-Bisson inc.	Saint-Polycarpe	QC	HO	275	311	278	288	864
La Coop Ste-Marthe	Ferme Du Galet inc.	Rigaud	QC	HO	276	293	290	286	859
La Coop Unifrontières	Suntor Holstein enr.	Ormstown	QC	HO	272	291	285	283	848
La Coop Unifrontières	Ferme St-Clément enr.	Beauharnois	QC	AY	271	293	277	280	841
La Coop Unifrontières	Tannahill Farms Reg'd	Ormstown	QC	HO	272	290	275	279	837
La Coop Unifrontières	Bryhill Farm	Ormstown	QC	HO	278	274	281	278	833
La Coop Agrodor	Ferme Rubis 1987 enr.	Thurso	QC	HO	263	292	270	275	825
The Co-op AgriEst	Morrisbel Holsteins	Sarsfield	ON	HO	274	275	274	274	823
La Coop Unifrontières	Ferme Campo & Frères inc.	Saint-Télésphore	QC	HO	269	276	273	273	818
La Coop Unifrontières	Marbrae Ayshires	Howick	QC	AY	266	283	266	272	815
La Coop Unifrontières	Ferme U. Grégoire et Fils inc.	Saint-Blaise-sur-Richelieu	QC	HO	265	274	268	269	807
La Coop Agrodor	Ferme Desleduc Gms SENC	Thurso	QC	HO	255	289	260	268	804
La Coop Unifrontières	Ferme Monréal SENC	Les Cèdres	QC	HO	266	267	270	268	803
La Coop Ste-Marthe	Ferme Miclo 2000 inc.	Rigaud	QC	HO	264	265	273	267	802
La Coop Unifrontières	Ferme Archo	Saint-Louis-de-Gonzague	QC	HO	265	271	264	267	800
La Coop Agrodor	Ferme Top SENC	Saint-André-Avellin	QC	HO	255	270	267	264	792
The Co-op AgriEst	Ferme A & L Desnoyers	Saint-Albert	ON	HO	258	278	255	264	791
La Coop Unifrontières	Ferme 236 inc.	Saint-Louis-de-Gonzague	QC	HO	261	260	268	263	789
The Co-op Agriest	Weeberlac	Carlsbad Springs	ON	HO	254	268	267	263	789
La Coop Unifrontières	Ferme Franord inc.	Salaberry-de-Valleyfield	QC	HO	253	268	263	261	784
La Coop Unifrontières	Templewood Farm	Howick	QC	HO	255	268	256	260	779
The Co-op AgriEst	Ferme Descayer & Fils	Saint-Albert	ON	HO	248	270	256	258	774
The Co-op AgriEst	Reylene Holstein	Embrun	ON	HO	249	274	249	257	772
The Co-op AgriEst	La Ferme Ben-Rey-Mo LTD	Saint-Albert	ON	HO	252	265	253	257	770
La Coop Unifrontières	Ferme Canado Enr.	Saint-Bernard-de-Lacolle	QC	HO	250	261	258	256	769
The Co-op Agriest	Overdale Farms Ltd	L'Orignal	ON	HO	259	254	255	256	768
La Coop Agrodor	Jada Jerseys	Sainte-Anne-du-Lac	QC	JE	258	236	273	256	767
La Coop Unifrontières	Raeburn Holstein	Howick	QC	HO	246	255	263	255	764
La Coop Unifrontières	Ferme Legaudière inc.	Coteau-du-Lac	QC	HO	251	258	253	254	762
La Coop Unifrontières	Ferme Legermau 2000 inc.	Saint-Anicet	QC	HO	264	275	269	269	762
La Coop Unifrontières	Ferme Iceberg 2006 Inc	Saint-Stanislas-de-Kostka	QC	HO	247	254	257	253	758
La Coop Unifrontières	Terrace Bank Farms	Howick	QC	AY	257	243	258	253	758
The Co-op AgriEst	Ferme Dlasept	Saint-Albert	ON	HO	250	263	244	252	757
The Co-op AgriEst	Ferme Ricky	Saint-Albert	ON	HO	250	255	251	252	756
The Co-op AgriEst	Ferme Delurenic	Casselman	ON	HO	245	266	242	251	753
La Coop Unifrontières	Ferme Vigilan	Coteau-du-lac	QC	HO-JE	245	255	250	250,5	751