

Dairy Knowledge at your fingertips

valacta

Volume 5 - Issue 1 - May 2009



New value-added service Make way for the Transition Cow Index™

Daniel Lefebvre, PhD, agr., General Manager and R&D Manager, Valacta

The most difficult period for a dairy cow is around calving time. The transition between drying off, calving and starting a new lactation almost always leads to significant weight loss and entails health risks, with both the animal's life and the herd's profitability at stake.

What can we do to improve our transition management?

Until now, there were no management tools specific to the transition period at our disposal. Fortunately, that situation has changed. An American researcher has developed a tool called the Transition Cow Index™, which

can be used to evaluate the performance of each cow as early as the first test date after calving (see pages 2-3).

As a milk recording agency and centre of expertise, Valacta is now offering this new tool exclusively to its clientele in Quebec and the Atlantic provinces. Ask your Valacta technician or advisor about the TCI and learn how to improve your transition cow management. Just think of the advantages: healthier cows, more productive for a longer time, increased revenues and less trouble throughout the year. Who would want to do without it?

Farewell to a distinguished collaborator Thank you to Rodrigue Martin



It is with great pleasure – and some sadness as well – that we say goodbye to Mr. Rodrigue Martin, who retired in March. Trained as an agronomist, Mr. Martin made his career as an advisor for the MAPAQ's Direction of Development

and Innovation. In this capacity, he served as a member of the Board of Directors of PATLQ and then Valacta for many years. Mr. Martin has always been an ardent supporter of Valacta and its mission to improve the

dairy industry. In fact it was his comparison of the performance data from farms using Valacta services to that of farms not enrolled with Valacta that brought to light the "Valacta Effect", i.e., mathematical proof that dairy producers enrolled with Valacta obtain higher milk yields than others.

On behalf of the directors and staff of Valacta, and on behalf of Quebec's dairy producers, we thank you, dear Rodrigue, and wish you a wonderful and well-deserved retirement.

Summary

Transition Cow Index	2-3
Workshops and Training Courses	4
Dairy Research	4
Valacta Effect: \$45 000!	5
Client Survey Results	6

Valacta's Transition Cow Index™

For better management of the transition period

Daniel Lefebvre, PhD, agr., General Manager and R&D Manager, Valacta

Until now, it wasn't easy to quantify the success of the transition phase. In the future, however, Valacta's clients will have access to a unique tool designed specifically to answer that need: the Transition Cow Index™ (TCI), developed by Dr. Ken Nordlund, from the University of Wisconsin, can now be calculated for herds in Quebec and the Atlantic provinces, through an exclusive license obtained by Valacta.

The TCI™ calculation takes into account more than a dozen factors to compare the first test milk yield to the expected milk yield for each cow. Among others, the cow's last lactation's milk production, age, number of lactations, number of days dry, and previous lactation's last test somatic cell count are taken into consideration to predict milk production for the starting lactation.

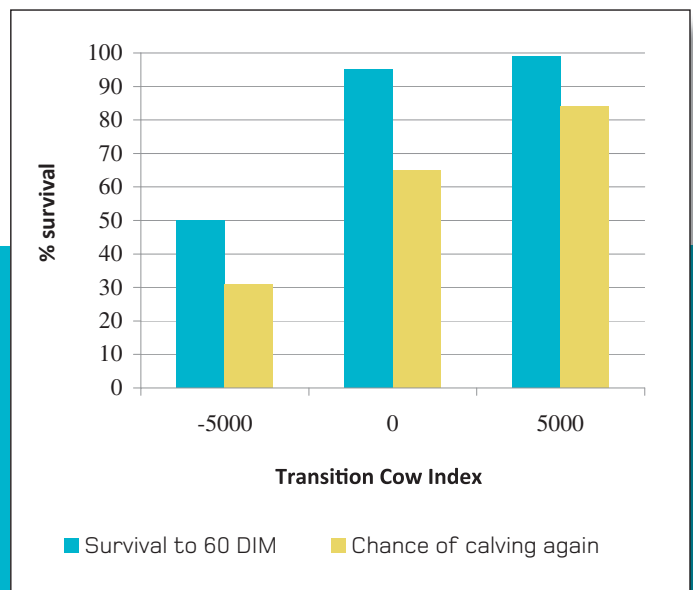
The TCI is calculated as the difference between the first test projection and the prediction based on historical factors. A negative TCI value, obtained when the first test projection is lower than expected production, indicates that the cow is not starting lactation as anticipated and it's likely that transition has something to do with it. That means that each cow is compared with herself rather than with a standard value for a particular population. For example, if, based on past records, we expect a cow to produce 10 000 kg during her current lactation, but projected production at her first test date is only 9000 kg, that cow will have a TCI of -1000 kg, which suggests the transition period didn't go as well as it could have. Conversely, if her first test projection is 12,000 kg, her TCI will be +2000 kg, indicating that, on the whole, the transition period was a success.

The equation for the Transition Cow Index was developed using data from a half-million cows in 4000 herds. Since production from the previous lactation is a parameter in the calculation, a TCI cannot be calculated for first-lactation heifers. Retrospective validation studies have shown that an increase in the TCI has a positive effect on subsequent production. In fact, milk production during lactation is found to increase by 1.27 kg for every one-point increase in the TCI. That means that a cow with a TCI of +1000 kg will produce 1270 kg more on average than a cow with a TCI of 0. This further demonstrates the importance of the transition period in relation with productivity.

The TCI has also been shown to be an excellent indicator of a cow's chances of survival to the next lactation. As you can see on the graph below, a cow with a TCI of 0 has about a two-in-three chance of calving again, which roughly corresponds to the average culling rate. By comparison, a cow that has gone through a difficult transition period and has a TCI of -5000 has only a one-in-three chance of remaining in the herd until the next lactation. Conversely, a cow that has an easy transition and gets off to a roaring start with

Chances of survival to 60 days and of calving again based on the Transition Cow Index

valacta




a TCI of +5000 has an excellent chance of coming back for a subsequent lactation. The number of cows that leave the herd before 60 days in milk is another indicator of the success or failure of the transition period. And the trend is exactly the same when we look at the relationship between the TCI and survival to 60 days in milk.

The transition phase is also critical with regard to health problems. In fact, a retrospective comparison of the TCI of cows that experienced health problems related to calving with that of cows that remained healthy showed that the TCI is very sensitive to health problems. Indeed, a difference of over 1200 kg was observed between healthy cows and those diagnosed with ketosis. For cows that suffered displaced abomasum, the gap widened to more than 2000 kg.

Although the Transition Cow Index doesn't tell us what's causing the problem, it does ensure rapid detection. The TCI is actually the most sensitive and reliable tool available to quickly identify a problem related to the transition period. It also gives us a means of evaluating the effectiveness of our corrective actions or changes made to transition management practices, whether a feeding adjustment or improved comfort.

The Transition Cow Index just became the central element of Valacta's new, exclusive reports that are intended to serve as a sort of control panel for the transition period. The key elements of this panel are the TCI, the protein-to-fat ratio of cows in early lactation (as an index of the risk of subclinical ketosis), the number of cows culled before 60 days in milk as well as cows with a first test cell count over 200,000.

This new tool is available right now.



TRANSITION COW INDEX™

Fresh Cow List

NAME: Patrick Producer
 HERD NUMBER: NS 999999
 PAGE: 1 of 2
 TEST DATE: 28 Jan 2005
 SERVICE: Non Supervised

Current Test Fresh Cows With Transition Cow Index™

Cow Name	Chain #	Calving Date	Lact #	DIM	TCI	305 ME Milk		Current Test			SCC (000/ml)		CAR Codes
						Prev Lact	Curr Lact	Milk kg	PIF Ratio	Fat %	Prev Lact	Curr Lact	
81	81	24 Dec 04	3	35	-5206	9797	2625	10.5	1.03	.1	122	78	
91	91	16 Jan 05	4	12	-2830	13402	4118	13.4	.61		520	168	
139	139	04 Jan 05	2	24	-1339	11094	8372	32.3	.91		22	26	
104	104	09 Jan 05	3	19	-1005	7917	7705	32.3	.57	.1	278	47	
Averages													

The 305 ME values listed are not used in calculating Transition Cow Indexes. They are included in this report as an indicator of prior and current (projected) lactation performance.

Current Test Fresh Heifers

Cow Name	Chain #	Calving Date	Age at Calving	DIM	305 ME Milk	Milk kg	PIF Ratio	Fat %	SCC (000/ml)	CAR Codes
87	87	01 Jan 05	01 Jan	27	11800	36.3	.79		23	
49	49	20 Jan 05	20 Jan	8	6949	17.2	.75		18	
Averages										

Special Situation Cows

Cow Name	Chain #	Calving Date	Lact #	DIM	Status	CAR Codes
3	3	04 Dec 04	4	55	More than 40 DIM	
123	123	06 Dec 04	3	53	More than 40 DIM	
43	43	15 Nov 04	1	74	More than 40 DIM	
1	1	20 Nov 04	3	69	More than 40 DIM	
22	22	22 Nov 04	5	67	More than 40 DIM	
114	114	24 Nov 04	1	65	More than 40 DIM	
135	135	27 Nov 04	4	62	More than 40 DIM	
18	18	28 Nov 04	3	61	More than 40 DIM	

RPT50510

**TRANSITION COW INDEX
 ASK FOR OUR INFORMATION FLYER**

Producers can get an on-farm demonstration, with an exclusive printing of their own Transition Cow Index reports. Priority will be given to clients enrolled on the Valued-Advice service.

So ask your Valacta advisor or technician about the TCI. An information flyer is available through Valacta personnel or via our web site at www.valacta.com, by following the Transition Cow Index link.

Valacta training courses and workshops available now

Valacta's practical training courses (in-class) and workshops (on-farm) will now be available throughout the year. Consult your Valacta technician or advisor for more information on the selection and schedule offered in your region.

Silage Harvest Organization

A one-day (5 hours) training session in the classroom: Discover the best planning and organizational practices with a view to developing the most efficient and economical operation.

Practical exercises tailored to your farm operation to help you identify specific improvements.

Choose among the three courses offered:

- Bunker silos and piles
- Tower silos and silage bags
- Large bales

Please note that, for the coming year, this course will be available in French only.



It Pays to Observe your Cows

A three-hour on-farm workshop: We're used to seeing our cows everyday, but it's hard for them to actually tell us how they're doing. If we take the time to examine them a little more closely, however, they can provide us with an indication of the efficiency of our housing, feeding or milking methods, for example.

New research chair at Université Laval For better nutritional control of the production of milk components

Québec, 8 February 2010 – Milk production is influenced by a number of factors that are difficult to control. A better understanding of these factors, particularly those associated with cattle nutrition, would make it possible to offer dairy products tailored to meet the diverse and changing needs of consumers. It is in this perspective that Université Laval, the Natural Sciences and Engineering Research Council of Canada (NSERC) and a number of major dairy industry partners have created the Industrial Research Chair on Nutritional Control of the Production of Milk Components in Dairy Cows.

"Our work is aimed at, among other things, using dietary factors to increase the content of some beneficial nutrients, such as omega 3, in milk, while limiting the level of certain trans fats that could have adverse effects," explains Yan Chouinard, chairholder and professor at the Faculty of Agriculture and Food Sciences at Université Laval. "We will also attempt to identify different types of feed ingredients that influence the odour and flavour of milk or that can improve its resistance to rancidity," he adds.

The creation of this chair was made possible by financial support from NSERC (\$575 000), Novalait inc. (\$250 000), Dairy Farmers of Canada (\$250 000), the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (\$250 000) and the Fédération des producteurs de lait du Québec (\$125 000). Valacta and the Centre for Research in Animal Sciences (CRSAD), in Deschambault, will take part in the experimental work that will be carried out over a five-year period.

The Valacta Effect

\$45 000 in savings for Ferme Seigneurie!

Peter Boersen, T.P., Regional Manager, Centre-du-Québec

The Laroche family operates Ferme Seigneurie, in St-Camille, with a herd of 115 cows in lactation. Half of the herd is in open housing with robotic milking. The other half is housed in tie-stalls.

When the managers of this dairy operation met with Frédéric Vincent, a Valacta advisor specializing in robotic dairy herd management, they considered the feeding strategy he proposed to be extremely pertinent.

This strategy focuses on a very high level of forage milk, which enables to maintain healthy, productive cows while reducing feeding costs.

The results:

- The herd maintains an average of a little over 10,000 kg of milk per cow per year.
- Components are around 4.10% fat and 3.4% protein.
- The ration contains 55 kg of corn silage and haylage.
- Feeding costs for the herd dropped by \$45 000 last year.

By rigorously applying Frédéric's recommendations, the Laroche family was able to capitalize on the expertise available from Valacta. Another great example of the "Valacta Effect"!



Mario and Micheline (center) and their sons Maxime and Alexandre Laroche, of Ferme Seigneurie: annual savings of \$45 000 thanks to the "Valacta Effect".

Results of our fall 2009 client survey

Renée-Claude Frigon, Human Resources Manager, Valacta

Producers who use Valacta say they are satisfied with the services they receive, but expect more

It is essential that every organization regularly assess how its clients perceive the image it projects and the services it provides. That information serves to highlight any adjustments the organization may need to make. Last November, 1410 dairy producers (nearly 25 per cent of Valacta's clientele) completed a survey aimed at, among other things, assessing client satisfaction with regard to the Valued-Advice and Technical Solution services offered by Valacta. It is worth noting that only 4.68 per cent of respondents were from the Atlantic provinces, a proportion that we would like to see increase in the future.

The good news is that 87 per cent of clients say they are satisfied with the services received; they do, however, expect more from Valacta in order to further the development of their farm operations. Indeed, the following points were mentioned as opportunities for improvement:

- that Valacta play a greater part in identifying herds' weaknesses and directing dairy producers toward appropriate services;
- that concrete and profitable results be more perceptible at the farm level;
- that Valacta assist producers further in reaching their financial goals and herd performance targets, hence helping them develop their operations;
- that those who are not enrolled on the Valued-Advice service get a better sense of the value of this service

Valacta relies on a team of well-qualified employees and is convinced that the organization has what it takes to come up to the expectations of all dairy producers. We recognize that some areas of our work need to be improved, and we have already begun to take action, setting up a motivating professional development programme for our staff, for example.

Hence we are confident that more and more dairy producers in Quebec and the Atlantic provinces will be feeling the "Valacta Effect" in the months to come.

THE WORK OF MY VALACTA DAIRY PRODUCTION ADVISOR		YES
1	My advisor brings about concrete results on my farm	90%
2	He helps me attain my objectives	90%
3	He helps me improve my profits (make more money)	83%
4	He helps me resolve the problems that I encounter on the farm	89%
5	He questions my way of doing things to help me progress	89%
6	The time spent with my advisor is an investment	87%
7	I would recommend my advisor to other producers	86%
THE WORK OF MY VALACTA DAIRY PRODUCTION TECHNICIAN		YES
8	My technician ensures that the data he collects is accurate and valid	97%
9	He makes me aware of both the strong and weak points on my reports	76%
10	He analyses my needs and directs me toward the appropriate service	75%
11	I would recommend my technician to other producers	86%

Finally, as we do each time we conduct a client survey, we held a draw to select five prize-winners among the survey respondents. The following clients will receive a free training session or workshop in 2010:

- Ferme Andrenel inc., advisor: Raymond Castonguay
- Ferme Bilodiere SENC, advisor: Rémi Bélanger
- Ferme Boulerice & fils, technician: Jean-François Bouchard
- Ferme des Trois Maisons inc., advisor: Denis Morneau
- Ferme Wallonia inc., technician: Julie-Ann Simpson

Thank you to all the participants!

Dairy knowledge at your fingertips : Volume 5 - Issue 1 - May 2010
Published by Valacta, dairy production centre of expertise, Quebec-Atlantic.
Edited by: Annik Perron, Communication Manager and Michel Pouliot, writer-editor

Phone: 1 800-BON-LAIT, 514 459-3030 • Fax: 514 459-3020 • www.valacta.com
E-mail: Editor: info@valacta.com • Customer Service: service.clientele@valacta.com

Depot: ISSN 1496-2748 Bibliothèque et Archives nationales du Québec and National Library of Canada, 2009