

# VALACTA – Dairy Production Centre of Expertise



A most instructive fall season

## Necessity is the mother of invention

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Fall was fast and furious for dairy producers this year: caught between TPP negotiations and a drop in milk prices, the dairy industry is facing new constraints. So what can we do? Valacta held close to a hundred discussion groups throughout Quebec this fall. Producers responded quickly and in large numbers, with more than 1,000 participants attending the meetings. Our goal was simple: take a few hours to discuss possible short-term solutions to cope with the impacts of the drop in the price of milk. The meetings proved to be a fantastic opportunity to share ideas and demonstrate our resourcefulness.

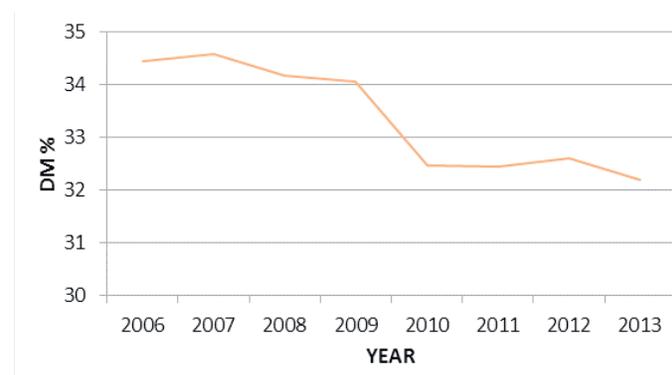
### Lessons learned

History shows that some difficult situations have brought about some very positive changes. Think back to 2008 and 2009, when too much rain produced mediocre forages.

But 2010 proved to be an exceptional year for both yields and harvesting conditions, delivering forages of outstanding quality. No two years are the same, and we learn to adapt to the challenges while learning from past experiences. Most producers have improved their harvesting methods and are now able to harvest better quality forages, even when the weather is uncooperative.

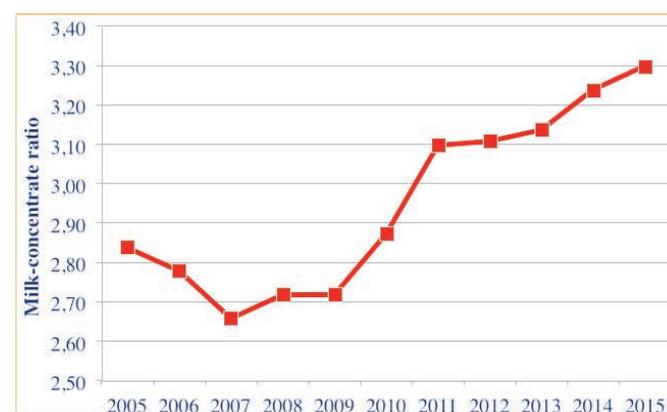
Collectively, producers are harvesting younger forages (lower ADF percentage), resulting in a higher forage intake and a greater contribution to energy intake (Figure 1).

**Figure 1 - Evolution of the ADF content of legume silages harvested in Quebec in 2014**



The impact in the barn is indisputable. The milk-to-concentrate ratio jumped from 2.72 to 3.10 (Figure 2) and has been increasing ever since.

**Figure 2 - Milk-to-concentrate ratio of herds enrolled in Valacta's advisory service for feeding**



In 2009, a farm that shipped 1,500 L of milk per day used 209 t of concentrates; today, however, the same production would require only 171 t. That represents a saving of 38 t—at \$450/t! Such a margin can certainly help when market conditions are challenging.

### The milk-to-concentrate ratio speaks volumes...

Is the ration being well used? Are you wasting feed? Are you getting your money's worth from your cows? The advantage of the milk-to-concentrate ratio is that it is easy to calculate by dividing the quantity of milk shipped daily by the quantity of concentrates fed per day to dry and lactating cows. Remember to convert high-moisture grain corn to its equivalent dry-corn weight.

What is the ratio we should be aiming for? A 2:1 ratio is bad under any circumstances. A 4.5:1 ratio is excellent when herd productivity is high and body condition is stable. On the other hand, a farm with a ratio of 6:1 could be in bad shape...

### ... but the milk-to-concentrate ratio doesn't tell the whole story

Table 1 was shown during Valacta's discussion groups. Although very useful, the milk-to-concentrate ratio alone is not sufficient as we would only be looking at one side of the equation—that is, the money going out. The margin gives us a more complete picture by representing the difference between the money coming in and the money going out. Ultimately, the goal is to improve profitability.

The data presented in Table 1 also shows how variable the results are from one farm to the next. For example, to earn the same income, Farm C spends

over \$5,000 more than Farm E. This is almost double, and it underlines why such information is crucial.

TABLE 1 - TECHNICAL AND ECONOMIC PARAMETERS OF A FEW QUEBEC FARMS						
Farm	A	B	C	D	E	Valacta average <sup>1</sup>
Milk-to-concentrate ratio	2.16	2.88	2.27	4.57	3.74	3.3
Concentrate cost (\$/hL)	18.50	15.88	22.09	15.59	12.53	13.29
Concentrate cost (\$/t)	399	459	502	686	455	446
Tonnes per month for 1,500 L/day	22	16	21	10	12	
Concentrate cost (\$/month)	8 800	7 350	10 550	6 900	5 460	
Milk payment after deductions (\$/month)	35 000					

<sup>1</sup> Herds with the advisory service for feeding, September 2014 to August 2015

### Some avenues for improvement

#### • Forage quality

Quality is crucial. It can be costly to compensate to maintain production. The target: 30 per cent ADF for hay and grass silages.

#### • Forage dry matter intake

The two-per-cent-of-body-weight rule that was taught is outdated as potential intake is in fact much higher (around 2.5 per cent of body weight or more). To reach that goal, you must:

- adjust concentrate intake accordingly and
- ensure that forage is always available in the feed bunk.

#### • Grain texture

When cows are consuming a great deal, the feed transits too quickly through the digestive system and can result in higher milk-urea levels than expected. Protein is wasted, so there will be less left for production, and milk-protein levels will be lower.

#### • Cow grouping

The needs of a cow producing 50 kg of milk differ greatly from those of a cow producing 25 kg. For TMR herds, a two-group system is recommended, and the groups should include more or less the same number of cows rather than an 80-20 split.

#### • Transition period

The Transition Cow Index (TCI) is an excellent measuring tool. The cow that starts with a TCI of -1,400 is not off to a good start. It would be justifiable if that cow gave birth to twins ten days before her due date. Otherwise, quick action is required.

#### Other avenues

It would take far too long to review all of the solutions suggested during the discussion groups. Nonetheless, it was a tremendous opportunity for collective reflection involving producers and many of their partners. When we take the time to stop and think, solutions emerge.

#### Conclusion

This article offers no new solutions, nor did any arise during the discussion groups. Instead, producers will need to be creative in adapting the solutions to the realities of their operations. Gains are possible, and different options can be considered to achieve those gains. So what are your goals for 2016? How will you achieve them? Why not consider getting your advisors involved?