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# Take the forage challenge

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In Quebec, most milk producers are also forage producers. Forage production represents one of the best opportunities to produce more milk without taking too much of a bite out your margin. Nonetheless, certain aspects of this production are perhaps too often neglected. As producers, you have the power to exercise control over the production costs, yield, quality and use of your forages.

With the skyrocketing price of concentrates, it's high time to review your practices to ensure you get the most out of your forages for the benefit of your dairy operation. From the field to the feed bunk—and everywhere in between—there's potential for improvement.

Hence the challenge we're putting out today—the forage challenge.

### Where do we start?

Producing large quantities of good quality forage requires expertise and a wide range of knowledge (soil science, plant science, farm engineering, animal nutrition, economics, etc.). Quebec producers have access to specialists in most of these

areas. The first step in taking up the forage challenge is to consult your service providers: Valacta advisors, agro-environmental clubs, advisory groups and others. Discuss your farm's performance with them, focusing on the various sectors related to forage production: fields, harvest system, ration and costs. This exercise will help you determine the strengths and weaknesses of your operation and enable you to set realistic goals.

Here are some examples of topics to put on the agenda when meeting with your partners and advisors:

**Fields:** To find out where your farm stands, you will need to establish an inventory of available forages and determine your herd's forage requirements as well as your adjusted forage yield (which takes into account both the quality and quantity of your forages). Use your yield data and forage analyses to do this. Your observations combined with those of your advisors will also help to paint a picture of the situation.

Use Table 1 to figure out how your farm's yields compare to regional yields. For example, if your farm's yields are below average regional yields, your discussions are likely to touch on subjects such as soils (pH, fertility, drainage), choice of species and cultivars, seedbed preparation, and cutting management (planning the first cut, interval between cuts).

**Harvest operation:** With the climatic conditions in Quebec,

the forage harvest is a race against time. Once underway, the harvest operation needs to run quickly and efficiently. A single unforeseen event can have disastrous consequences. You can calculate the daily capacity of your harvest operation based on the equipment used, the hourly yield of that equipment, the number of hours the system operates each day, and the available workforce. By identifying the weak link in this chain, you can make the changes required to be able to harvest the volume of forage you need in the shortest period of time possible in order to ensure maximum quality. In this case, it's likely that discussions with your advisors will turn toward equipment costs and how to reduce them (farm labour cooperatives (CUMA), contract work, etc.), dry matter content at harvest, chop length, silo airtightness, feed-out rate, aerobic stability at feed-out, etc.

**Ration:** Producing a large quantity of forage at reasonable cost and in record time is all very nice, but the cows still need to turn that forage into milk! Considering the rise in the price of concentrates, you should be trying to maximize the amount of forage in the ration and, especially, to maximize forage milk. Use your computerized data to access information on forage milk, concentrates fed, milk margin over feed cost, and much more. Based on that information, you and your advisor will be able to compare your results with the average for Quebec

**Table 1. Acceptable thresholds and targets for yield (tDM/ha) in hay and grass silage for all Quebec regions**

Region	Yield	
	Acceptable	Target
Bas-St-Laurent	3.8	4.4
Saguenay-Lac-St-Jean	3.6	4.2
Capitale-Nationale	3.9	4.5
Mauricie	5.0	5.7
Estrie	4.8	5.5
Outaouais	3.5	4.1
Abitibi-Témiscamingue	3.0	3.5
Gaspésie-Îles-de-la-Madeleine	2.7	3.1
Chaudière-Appalaches	4.6	5.2
Lanaudière	5.3	6.1
Laurentides	4.9	5.6
Montérégie	5.6	6.1
Centre-du-Québec	5.2	6.0

Source: M.C. Coulombe, Université Laval

**Table 2. Portrait of the average Holstein farm in 2011**

	Average	Your farm
<b>Production</b>		
Milk (kg/cow/year)	8,938	
Fat (kg/cow/year)	347	
Protein (kg/cow/year)	289	
<b>Feed and costs</b>		
Forage milk (kg/cow/year)	3,184	
Total forages (kg DM/cow/year)	4,906	
Total concentrates (kg DM/cow/year)	2,448	
Cost of concentrates (\$/hL)	12.16	
Margin over feed cost (\$/cow/year)	4,546	

Source: Évolution de la production laitière québécoise, Valacta, 2011.

dairy farms (Table 2). You can also do an in-depth analysis of the data to identify aspects that need to be prioritized in order to maximize forage milk without impinging on production or the health of your cows.

**Costs:** Increasing your yields and the quality of the forages you produce is certainly worthwhile, but the ultimate goal of this whole endeavour is to maximize your farm's net profit. Consequently, if the cost of forage production exceeds the gain from the increase in the nutritive value of the forages and their use by the herd, you're likely to be mightily disappointed. Standard forage production cost calculation is still the most reliable indicator but it does require knowledge of the expenses imputable to a number of expenditure items. Moreover, the exercise becomes more complicated when farms produce cash crops or have other livestock as well. An analysis of the Agritel Web data bank for 2008 and 2009 reveals that forage production costs are closely linked to equip-

ment expenses (\$/ha). So if you have good control of your equipment expenditures, you have every chance of producing forages at a reasonable cost.

In fact, farm operations that have good control of their forage production costs can expect to earn \$60,000 more per year than the average Quebec farm (for a 55-cow herd). That's certainly a potential source of income that could help offset the increase in concentrate prices!

### It's to your advantage!

Regardless of natural disasters and the rise in concentrate prices, producing adequate amounts of good quality forage at a reasonable cost needs to be a permanent priority for any dairy producer looking to run a profitable business. There is a wealth of resources and knowledge at your disposal—it's up to you to make the most of them.

The forage challenge is on—are you up to it?

<sup>1</sup>Calculation done by René Roy et al., 2008.

