



# Dairy Briefs



## The Latest Information on Dairy Cattle Nutrition

### Getting More Out of Your Cows

Laura Martin, M.Sc

Surprise! A quota increase and incentive days! Altogether they equal around an 8.5% potential daily increase in milk production and the incentive days last until November this year (Table 1). Unlike fall incentives this increase came unexpectedly, there was no time to plan ahead with diet changes or organize calving times to match the increased need for production. With cow prices sky-rocketing buying cows into the herd may not be the best solution but there are some management changes that can help get more milk out of the herd.

Table 1: 2015 Incentive Days

Incentive Days	
March 2015	2 production incentive days
April 2015	2 production incentive days
May 2015	2 production incentive days
June 2015	2 production incentive days
July 2015	2 production incentive days
August 2015	2 production incentive days
September 2015	3 production incentive days
October 2015	3 production incentive days
November 2015	2 production incentive days

#### DFO, 2015

The quickest and easiest management change is to use firstSTART® C 20/20 calf milk replacer for the calves rather than saleable milk. While it may seem more expensive as milk replacer has to be purchased off-farm the cost of firstSTART® C 20/20 calf milk replacer is about around 60% the cost of saleable milk. With firstSTART® C 20/20 calf milk replacer costing about \$0.43/L and a price of about \$0.75/L for whole milk, producers not feeding milk replacer to calves are losing over \$55/calf/month (using an average of 6 L/day).

Ration changes to promote higher milk production can be made. The milk cow ration may need to be more nutrient dense in order to support higher

Cont. >>

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*Getting More Out of Your Cows*

By: Laura Martin, M. Sc, Nutritionist



### Make the Most of Your Incentive Days



**firstSTART®C creates consistent and steady growth and development of calves by:**

- Supplying protein from milk origin, so it's easily digested
- Balancing with synthetic amino acids to help optimize average daily gains
- Providing optimum vitamin and trace mineral levels, including A, D, E & B Vitamins necessary for normal growth and health

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69819 London Road, RR #1, Centralia, Ontario, Canada, N0M 1K0

Tel: (519) 228-6444 or 1-800-265-2904 • Fax (519) 228-6560 • Email [kpalen@kenpal.on.ca](mailto:kpalen@kenpal.on.ca) • [www.kenpal.on.ca](http://www.kenpal.on.ca)

production levels, especially if wet forages or feeds are being fed. Increasing the level of bypass protein, if balanced properly, can increase milk production, and may be necessary to get more milk out of already high producing animals. Increasing the concentrate or grain portion of the ration can improve milk production, if the diet has adequate fibre levels. This strategy works best if the herd is split into high and low producing cows. Then the high producing cows benefit from the extra nutrients and the rest of the milking herd doesn't put on extra condition before drying off. Another alternative, if forage supply allows, is to increase the proportion of corn silage in the diet. Research shows that cows fed diets with more corn silage than alfalfa silage have higher milk yields.



Sometimes feeding more grain isn't an option. If fibre levels in the ration are low, increasing grain may reduce butterfat production even as it increases milk production. Adding a concentrated form of energy, like Lacta-Fat®, in the ration can increase the energy in the ration with minimal effects on starch or fibre levels, helping to maintain a healthy rumen and support butterfat production.

There are many different strategies to increase butterfat while maintaining production. Adding rumen buffers, like sodium bicarbonate, potassium carbonate or magnesium oxide can help keep the rumen stable and have a positive impact on butterfat. Feeding a yeast product can also help milk production and components as they have been shown to improve fibre digestion in the rumen. Yeast products have the most impact on high producing cows. Kenpal has 3 different buffer paks available that contain buffers and yeast products, as well as some extra goodies (Table 2).

**Table 2: Kenpal Buffer Paks**

Product	Contains	When to Feed	Potential Benefits
microbiSTART®	Buffers Yeast Products Rich Source of Energy Viable Microbes	Feed for up to 2 weeks post calving	Stabilizes the rumen Helps get the rumen bugs started after calving Helps replenish lost electrolytes
peakSTART®	Buffers Yeast Products Niacin Organic Zinc	Feed to fresh cows for the first 60 – 100 days after calving	Stabilizes the rumen Helps increase milk production and reduce ketosis risk Helps boost the immune system and hoof health
summerSTART®	Buffers Yeast Products Potassium Carbonate	Feed to cows during hot weather	Stabilizes the rumen Helps replenish lost electrolytes Promotes dry matter intake

Another way to get more milk out of your cows is to milk them more often. Easy for me to say, I'm not the one who has to milk the cows, but increasing milking frequency can increase milk production (Table 3). The effects of increased milking frequency on production persist even after the frequency is decreased. This strategy works especially well for fresh cows. Research has shown that increasing the milking

## summerSTART

**Specifically formulated to help prepare dairy animals to combat the effects of summer heat with the addition of key ingredients to the ration.**

Heat stress affects most dairy animals during the summer. Once the temperature reaches 26°C (80°F), dry matter intake, milk yield and reproductive performance can decline.

Studies have shown that ruminants require more sodium and potassium during hot weather. This may be partially due to the extra intake of water and greater urinary excretion. The increased requirements for potassium has been attributed to greater excretion of potassium in sweat.

## peakSTART

**Designed specifically to allow for greater feed intake, increased feed efficiency and improved milk production in fresh cows.**

peakSTART® is ideally suited for starting off high-producing dairy cows. More and more modern dairy farms are setting up fresh cow groups to adapt newly calved cows to the high group ration. The fresh cow group would be an ideal place to add peakSTART®. Getting fresh cows off to a good start in lactation will help maintain dry-off. By targeting the cows that matter, costs can be reduced and potential income increased.

## microbiSTART

**Gives fresh cows extra energy and the essential nutrients for a speedy recovery from calving.**

microbiSTART® is a unique product containing very high quality, palatable ingredients such as yeasts, sugars, calcium propionate, sodium bicarbonate, niacin, naturally-occurring microorganisms, potassium chloride, magnesium oxide and a natural flavouring agent. This product contains other essential nutrients and has been developed specifically for use when fresh cows need additional energy.



frequency in just the fresh group, rather than the whole herd, from 2 to 4 times per day for the first 21 days in milk can boost milk production by 3 kg/cow/day. This indicates that the majority of the increase in milk production comes from the fresh group. Milking more often can quickly exhaust a cow's body store of energy and ration changes should be made to support the higher milk production.

**Table 3: Effect of Milking Frequency on Milk Yield**

<b>Milkings per Day</b>	<b># Studies</b>	<b>Change in Milk Yield (kg/cow/day)</b>
3x vs 2x	40	3.5
4x vs 2x	4	4.9
1x vs 2x	4	-6.2

**Source: Erdman and Varner 1995**

A shorter dry period may be a good strategy to increase milk production. Research has shown that the conventional 60-day dry off period may not be necessary and that dry periods of 32-34 days may not impact the next lactation. If cows are still milking well at 60 days pre-partum keeping them in the milking herd may make sense. This management tool should be used with caution as good records must be maintained to ensure the cows do get a dry period and are in good condition for calving. Diet changes also need to be made to accommodate one dry cow ration instead of the more conventional far off and close up rations.

Barn space is critical. Bringing in more cows/heifers or not drying off cows may actually harm the herd milk production. Over stocking can occur in terms of bunk space or free stall space. If the bunk space is overcrowded then the cows are forced to eat in "shifts". This can intensify sorting issues within the herd, allowing the more dominate cows access to the whole TMR but the submissive cows and heifers get the picked through leftovers. Stall space is also important. Cows make the majority of their milk when they are lying down. If there are not enough stalls or the stalls are not comfortable, cows will spend more time standing in the alleys. For every one hour increase in lying time milk production can increase over 1 kg/cow/day. Studies also show that stocking densities over 80% will reduce milk yield in heifers for the first 3 months of lactation. Cows produce more milk if they are comfortable and not overcrowded.

Making some simple diet or management changes can get more milk going out the door. Don't miss out on this great opportunity to increase milk production and profits.



**WE APPRECIATE YOUR BUSINESS**

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