



Dairy Briefs

The Latest Information on Dairy Cattle Nutrition



Spring and Summer Checklist

Laura Martin, M.Sc

Spring is in the air and farmers are chomping at the bit to get into the fields and get another planting season underway. Hopefully the snow is out of the fields, but until they dry up and the weather gets warm enough for planting there are a few things around the farm that should be checked. Tuning up equipment that has sat around all winter and restocking harvesting supplies before everything gets busy is a smart idea. Planning ahead now can save headaches when things get hectic later.

Equipment that hasn't been used all winter, like fans and curtains should be tested to ensure everything is in working order. Cleaning fan blades and louvers can actually save money as dirty fans can require up to 50% more energy to run than clean fans, according to OMAFRA. Cleaning fans can also increase fan capacity by 40% and get more air moving through the barn. Check that the curtain mechanism functions and the curtains open fully to take advantage of natural ventilation. Make sure the curtains themselves are clean as this will increase natural light in the barn and cut down on energy costs.

Many producers in Ontario have the opportunity to pasture at least some of their herd over the warm months. Before the cows head outside, check the pasture for poisonous plants and weeds. It's also a good idea to check the pasture fence now before any cows get loose.



Harvesting equipment that has sat in a shed all winter should be gone over before it is used again. Make sure any repairs that were

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Inside this Issue...

Spring & Summer Checklist

By: Laura Martin, M. Sc, Nutritionist



BUFFER PAK FOR DAIRY COWS

Potential Benefits

- Helps replenish lost electrolytes.
- Provides buffering required for the maximum production of rumen bugs.
- Promotes dry matter intake and helps increase ration digestibility.
- Helps improve milk production during hot weather.
- May help reduce breeding problems during heat stress conditions.



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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 • www.kenpal.on.ca

noted last year have been done. Clean or replace filters, including the cab air filters, and inspect belts and tires for wear. Check air pressure on tires that haven't been used all winter. Replace any worn knives or broken tines on harvesters and rakes so that forage is chopped properly and not left in the field. Calibrate moisture testers so that harvesting decisions are made with accurate information. This is also a good time to stock up on supplies needed at harvest, like plastic sheeting for bunk silos and Silo Guard®II to increase the quality of the harvested forage.

Silo Guard®II helps stop mould and yeast growth common in the first stages of fermentation by removing pockets of oxygen from the fermenting forage. Enzymes in Silo Guard®II help to speed up fermentation by providing energy to the naturally occurring fermentation bacteria. Faster fermentations mean that more nutrients are preserved in the fermented forage and less dry matter is lost to bacteria during the ensiling process. Research has shown a dry matter recovery of up to 6% with Silo Guard®II. The cost of treating forage with Silo Guard®II is often covered by this improvement in dry matter recovery (Table 1). Even after accounting for the cost of the product the benefits of using Silo Guard®II are clear; the silage at feed-out is a higher quality and there is more of it. Research has shown that this higher quality feed can actually translate into improved milk production in dairy cows.

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GILLETTE FARMS INC. HOME OF SUPER-COW GILLETTE E SMURF



WE USE SILO GUARD®II TO PRESERVE MORE OF WHAT WE WORKED SO HARD TO PRODUCE. BECAUSE QUALITY SILAGE IS VALUABLE, SILO GUARD®II IS A VERY WORTHWHILE INVESTMENT.

Gillette Farms Inc. is located in Embrun, Ontario. They have a 450 head milking herd and a total of 1100 animals. They have also had the great achievement of raising and working with the new World Record lifetime milk producer Gillette E Smurf. Mathieu Patenaude of Gillette Farms had some great things to say about Silo Guard®II forage additive for Alfalfa, Corn Silages and Baled Hay:

"At Gillette Farms we pride ourselves in raising cattle that have great conformation so that they are well equipped to have a productive life. But this is only part of the equation. To get great production we need to feed top quality ingredients on a consistent basis.

This is why we put a high importance on our silage production. We have found that Silo Guard®II is the best product to help us achieve superior silages. With Silo Guard®II, the benefits are readily visible. Better preservation of the silage both on top of the bunk and in the mass. Reduced heating at the silage face and at feed out and sweeter smelling silage.

We use Silo Guard®II to preserve more of what we worked so hard to produce. Because quality silage is valuable, Silo Guard®II is a very worthwhile investment. Try it today!"

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Table 1: Silo Guard®II Dry Matter Recovery Economics

	No Forage Additive	Forage Additive
DM Recovery Advantage	0%	6%
Quantity Ensiled	286 T	286 T
Corn Silage Dry Matter	35%	35%
Quantity Ensiled (DM Basis)	100 T	100 T
Dry Matter Recovery	87 T	94 T
Advantage Over No Additive		7 T
Price of Corn Silage (As Is)	\$ 50.00	\$ 50.00
Price of Corn Silage (DM)	\$142.86	\$142.86
Extra Silage Over No Additive		\$1000.00
Cost of Forage Additive (Dry)		\$4.07/kg
Application Rate		0.5 kg/T
Cost per Treated Tonne		\$2.04
Example Cost (As Is)		\$582.01
Net Value of Extra Silage after Additive Cost		\$417.99
Source: DM Recovery - Kansas State University		

As bunk silos are emptying it is a good idea to repair any cracks in walls that have shown up since last harvest. Repair any damage to tower silo roofs to prevent rain and air from entering the silo and spoiling the feed. If feed needs to be removed from a bunk and piled elsewhere to make room for new feed, make sure it is packed well and use Silo Guard®II to help prevent heating. The new pile should be sealed for at least 3-4 weeks before using for feed. Plan which bunks to put newly harvested forage in so that the feed out rate keeps up with weather conditions (Table 2).

Table 2: Silage Feed Out Rates

Storage Type	Cold Weather (inches/day)	Warm Weather (inches/day)
Tower Silo, oxygen limiting	2	2
Tower Silo, top unloading	2	4
Bunker Silo/Silage Pile/Silo Bag*	4	6
From Bickert , et al. 1997		
* If density is less than 13 lbs/ft ³ faster feed out rates are required.		

This is also a good time of year to check your TMR mixer and make sure it is mixing the feed right. Calibrate the weigh scales on the TMR mixer and verify that it weighs feed correctly as it is added to the machine. Take 10 samples from one batch of feed and send to the lab for a mixer validation. Check the screens and hammers or rollers on your corn grinder and confirm that the particle size of the corn is good. Mixing the TMR or pushing up feed in the bunks more frequently in the hot weather can help prevent a drop in feed intake. However, this requires more time and labour and might require some forward planning. Also talk to your nutritionist about feed additives that can be used in the summer to help the cows with heat stress. summerSTART® is a buffer package designed specifically for hot, summer weather and is a good investment especially with incentive days starting a month early this year. summerSTART® uses potassium carbonate to meet the additional potassium level required by cows in the summer, and help keep the DCAD balance positive. The buffers and yeast found in summerSTART® also help keep the rumen stable and healthy which helps maintain butterfat in the hot weather.

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Using a rumen inert fat, like a palm oil based fat, can also help provide energy while supporting butterfat in the hot temperatures to come.

Water is very important for milk production at any time of year. However, cows do drink more as the temperature increases (Table 3). Check the water lines and water tanks to make sure everything is in working order. Consider providing an extra water tank during extreme heat to provide enough water for the whole herd. Testing water quality periodically is a good idea as well. Water quality can vary from year to year and water is an excellent vector for harmful bacteria and nutrients that can affect the health and production of the cows.

Table 3: Effect of Increasing Temperature on Water Intakes

Temperature (C)	Expected Water Intake (L)
20	68
25	74
30	79
35	120
40	106

Adapted from: Fidler, A.P and VanDevender, K. University of Arkansas (data from 1981)

Don't just glare at the wet fields or curse the weatherman; do some spring cleaning around the farm and it will be planting time before you know it. Checking equipment now and planning ahead for the heat to come can save time and money later. Discuss feed changes and feed additives with your nutritionist and plan for a productive summer.



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