

CropLinks

information on forages, corn and cereals

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Sean — thanks and best wishes!

The Nova Scotia ruminant and forage sector will be losing a faithful servant from public extension services in mid January. Sean Firth is leaving AgraPoint to begin ownership/operation of the Maritime Cattle Market in Truro, plus some private consulting opportunities. Bill and I have greatly enjoyed and benefited from working with Sean for almost 20 years at both AgraPoint and during our NSDAM days. Over the years Sean has driven many miles in his Volkswagen Golf and put in lots of extra hours to help Nova Scotia beef and sheep farmers with feeding, production, breeding, handling, housing, grazing and policy issues.

Sean, many thanks and best wishes in your new ventures! You will be greatly missed by all your colleagues at AgraPoint.

High Quality Round Bale Silage — it's by Design

Making high quality round bale silage is dependent on a few key management practices. First off the old saying, "garbage in garbage out" holds true. Harvesting the forage at the proper stage of maturity with a high sugar content is the foundation of good quality round bale silage. Overly mature rain damaged forage is not going to ensile as well or have good feed quality. The ensiling process in balage is a lot slower than with precision chopped silage. In precision chopped silage the pH can drop to below 4.5 in just 7 days, with round bale silage it can take 60 days or longer. Chopping the silage ruptures cells, makes the cell juices more available and spreads naturally occurring fermentation bacteria throughout the mass. The result is a faster more complete fermentation with precision chopped silage. Fermentation can be enhanced in round bale silage with a pre-cutter or slicer option on the baler.

The single most important factor to getting a consistently good fermentation in round bale silage is moisture content. The ideal moisture content for round bale silage is 50- 60%. This will help ensure a good fermentation and minimize heat damage. A study at Ithaca, New York showed that dairy farms with the most consistent moisture in the bales had the highest milk production. Higher consistency of the moisture means less variability between bales, leading to better ration balancing and more milk production.

Bale density is another key factor for success. Tight bales contain less air or oxygen and therefore have a more efficient fermentation, as well they store better. It is important to use baling techniques that maximize bale density such as wide uniform windrows, slower ground speeds, hard core balers and balers with pre-cutters or slicing knives. The ground speed for baling of silage should be slower than for baling dry hay. Baling at a slower speed will produce a tighter, denser bale. A dry matter density of 10 to 12 lbs/ft³ is considered ideal.

Uniform size bales are important especially with in-line wrappers or tubes. Different size bales lead to air gaps between bales which become possible sites for spoilage. Bales should be wrapped as soon as possible after baling. The higher the air temperature the sooner they should be wrapped. As a general rule, under warm conditions round bales should be wrapped within 2 hrs after baling, under cool conditions this can be extended to 4 to 12 hrs. Large square bales are baled at higher densities so wrapping could be delayed up to 24 hrs. Wrapping as soon as possible after baling helps reduce the development of molds and heating in the bale. Excessive heating will reduce protein availability, reduce feed energy, as well as reduce forage digestibility.

Bales should be wrapped with at least 6 mils of plastic. However, 8 mils is preferred as it will give added insurance against tears and punctures. Experiments by Dan Undersander in Wisconsin have clearly shown that to reduce heating and spoilage in the bale, bales need to be wrapped with at least 6 mils (either 4 layers of 1.5 mil or 6 layers of 1 mil) plastic. For individually wrapped bales it is recommended that the plastic be overlapped 50% to ensure

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Round Bale Silage (cont.)

an airtight seal. The plastic should be stretched 50-55% to ensure a good tight fit and seal. Bales should not be wrapped in the rain as the water will damage the seal between the layers.

It is important to store bales in an area that is well drained and free of long vegetation. The long vegetation will provide cover for rodents. Bales should be stacked whenever possible to reduce the surface area exposed to sunlight. Round bales should never be stacked on the round as they will become squat and misshapen allowing air to penetrate between the layers of plastic. Rather the bales should be stacked on their flat ends. Finally stored bales should be monitored weekly and any tears or holes should be repaired immediately. It is highly recommended that you use the special tape that is made to adhere well to the silage plastic and give a good tight seal.

Following a few key management practices can make a big difference in the quality of round bale silage.

Dan Mosley — AgraPoint's New Dairy Specialist

As AgraPoint's new Dairy Specialist, I wanted to send a short note to introduce myself. Before joining AgraPoint, I worked in the United Kingdom as a Dairy Nutritionist. In my work I specialized in nutrition and husbandry advice including; dairy feed plans; herd health advice; dairy replacements; housing; nutrition and transition cow management. I was brought up on our family dairy farm in Nottinghamshire, England, where we milked 140 cows, reared all replacements and had around 200 acres of cereals.

During my farm visits so far in Nova Scotia, I have seen many of the challenges facing producers here are much the same as those faced by producers in the UK – primarily fertility, mastitis and lameness on the health front and trying to raise butterfat % as a production goal. Attempting to correct these is no easy feat as there are many parts to the jigsaw which need to be looked at and put in place before improvements can be seen. For this reason, I spend a lot of my time in dairy barns watching the behavior of the cows, scoring them on various points and looking at the physical approach to feeding and eating. Also it is important to have some management figures to judge if things are improving or worsening and I like to spend time looking at these. If you can't measure it you can't manage it!

On behalf of producers here I attended a Dairy Nutrition conference in Pennsylvania last month and have highlighted some topics from that which I would like to pursue here in the coming weeks. Namely, these include new science around milk fat depression, formulating diets for dry cows and also cow comfort.

I look forward to meeting you before long; however please don't hesitate to call me if you have any questions (902-896-0277 office or 890-9665).

Cereal and Soybean Production Tune-up!

This is early notification of a cereal and soybean session that we will be bringing to five locations across the province in early March. Various aspects of maximizing barley, wheat and soybean yields will be discussed including; seeding rates/dates, fertility, weed control timing, soybean nodulation, winter wheat potential outside the Valley, feeding considerations, etc. This session planned for early March will help you get "tuned-up" for some bumper yields.

Harvest Completed...Planning Ahead

2007 Grain Corn Crop – This year about 6000 acres of Nova Scotia's estimated 24,000 acre corn crop went for dry grain. This certainly taxed our commercial driers which operated 24 – 7 throughout November at about 650-700 tonne/day total capacity. These drier managers did a fine job handling over 16,000 tonnes of corn through the four publicly accessible driers at Biggs', Big East, Peill's and West Nova. What can we do to improve drier capacity for potentially an even larger 2008 grain corn crop? These drier operators are planning to increase overall capacity by 15 – 20%. As Valley corn growers you need to give proper consideration to hybrid selection based on realistic planting dates on intended fields. All Valley growers should consider growing some acreage in grain hybrids recommended for Production Zone 2 & 3 (see 2008 Corn Guide). You may be giving up 5 – 10% yield potential, but hopefully we can produce more "dry grain corn" that's under 25% moisture in late October. This could get harvest started 10 – 12 days earlier so drier capacity is not stretched so much.

2007 Cereal & Soybean Variety Test Data is now Available – We have inserted into this issue of Croplinks the 2008 Cereal Guide and the 2007 Maritime Soybean Variety Trial results. The big change to 2008 Recommended Cereal Cultivar listing is in 6-Row Barley with the addition of three new high yielding options with AC Encore, Synasolis and Yelder. Along with AC Legend, these three varieties lead the pack in yield. AC Legend can be ordered from Shur-Gain or Gordon Jackson, Yelder is from Co-op Atlantic or Scotian Gold, while AC Encore and Synasolis are likely available from Jim Lamb in NS and are grown by Terio Seeds in Grand Falls, NB. Other cultivar changes in the 2008 Cereal Guide are the addition of Synextra oats (from Semican in Quebec) and the deletion of Belvedere and AC Wilmot spring wheat and Pioneer 25R23 winter wheat. A listing of other seed suppliers with cultivars on the 2008 Recommended List is on the back of the Cereal Guide.

For soybeans we have several Roundup Ready varieties with 2-3 years test results from this four location Maritime Test. All these varieties can be grown in the higher heat unit soybean areas of Nova Scotia, however if you are in a more marginal soybean production area within NS or want to seed winter wheat on these fields after early October harvested beans, then choose a lower heat unit variety (Drako RR, 90A06, PS 26RR, Olex RR, RR Rosco, or DKB00-99 listed in order of increasing heat unit requirements).

At a recent meeting, Dr. Richard Martin plant pathologist from Ag. Canada in Charlottetown gave a presentation on fusarium head disease and DON vomitoxin levels in Maritime cereals. He said that good crop rotation is by far the most effective way to minimize DON levels in cereals. If you are growing successive grain corn crops or corn in immediate sequence with wheat or barley you're going to see more fusarium pressure than if you have a good mix of non-host crops such as forages, soybeans and most veggie crops. Dr. Martin said that the wide range of foliar fungicides he's tested don't seem to reduce DON levels, however proper crop rotations can!!!

(This session is jointly presented by AgraPoint and NSAC)

Please RESERVE these dates in your area: **March 4** in Eastern NS (afternoon and evening cereal sessions in 2 locations); **March 6** in Central NS (afternoon and evening sessions in 2 locations); **March 7** in Valley (afternoon session only) More details will follow in February.