Forage Focus 2015

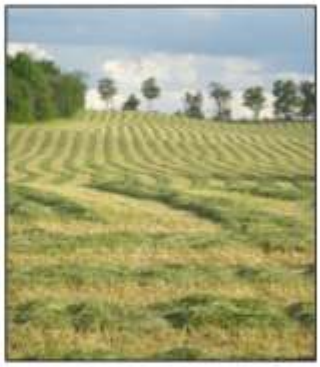
Conference & Trade Show

"Forage Mixtures to Optimize Milk, Cow Health & Profit"

Tuesday, December 15th Shakespeare
Wednesday, December 16th Winchester

Keynote Speaker
Rick Grant - President, Miner Institute
"Milking Ration Fiber for All It's Worth" &
"Higher Forage Diets: Promoting the Health and Productivity of Your Cows"
Joel Bagg - "What's New in Forages for 2016"
Ontario Hay & Forage Co-op - "Exciting News for Forage Producers"
Producer Panel - "Making Quality Hay for On-Farm, Domestic and Export Markets"

The Ontario Forage Council gratefully acknowledges the Ontario Ministry of Agriculture, Food and the Dairy Farmers of Ontario for their continued support!



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A special thank you to Agricorp for their generous sponsorship of this proceedings booklet!

FORAGE FOCUS 2015
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Inside this Issue:

President's Welcome

Fred Brown, President, Ontario Forage Council

On behalf of the Ontario Forage Council and the conference planning committee, I would like to thank you for coming. This day's events should provide you with a wide variety of information to evoke your interest in forages.

Today's speakers are well versed in many areas regarding Forage production and many related topics. A big thank you goes to our sponsors, for their financial contributions to assist in facilitating this conference. Without their continued support, it would be difficult to present a function of this size. At this time I would like to thank today's speakers; Rick Grant, the President of the Miner Institute, Joel Bagg, Quality Seeds, as well as our excellent panel of prize winning producers in both Shakespeare and Winchester.

Upon leaving this event, I hope you will take with you the information presented and have a different outlook on forages in general and how forages can help you achieve high results. With this, the Ontario Forage council and its presenters have achieved our goals for today's event.

Fred Brown
President, Ontario Forage Council

Ontario Hay Marketing Forum Update

Ray Robertson

Ontario Hay Marketing Forum

QUALITY ONTARIO HAY

Developed by the Ontario Forage Council

Hay production for 2015 is now completed, and from the marketing perspective, producers will now decide on their best outlet. The Ontario Hay Marketing Forum (OHMF) is becoming recognized as a very reputable group of hay marketers and is often referred to as the "All Star Team" within the forage industry.

A committee of the OHMF have been diligently investigating the possibility and options for expanding the hay market beyond North America. As a result of these efforts and considerable discussion, they have filed an application to register the Ontario Hay & Forage Co-operative Inc. This registration is anticipated to be completed during November, after which co-operative memberships will be accepted. A membership share of $1,000.00 is required to join the co-operative, and there is keen interest, with over a dozen members having already committed to invest in the co-operative.

The Ontario Hay Marketing Forum will continue to be an important entity in the Ontario hay production and marketing field, and will remain as an essential link to the Canadian Forage & Grassland Association.

Producers who are interested in becoming involved in the Ontario Hay Marketing Forum or have any questions are encouraged to contact:

Ray Robertson, Manager, Ontario Forage Council.
Phone: 519-986-1484 or 1-877-892-8663
E-mail: ray@ontarioforagecouncil.com

ENJOY THE CONFERENCE!!

Repairing New Alfalfa Seedings

Joel Bagg, Forage Development Specialist & DSM, Quality Seeds Ltd.

There were many poor newly established alfalfa stands in Ontario this year due to multiple factors, including a very dry May following by an extremely wet June. Fields where excessive rainfall ponded on heavier textured, poorly drained soils were especially affected. Brillion seeders can work well, but drills generally work better in extreme soil conditions, such as too loose or too wet. 2015 was one of those years. Some of these fields will require reseeding or overseeding to enable an acceptable forage stand and future yields.

Too Dry

Although new forage seedings were seeded early this spring into excellent soil conditions, extended dry weather without rain delayed the germination. Some seeds initially germinated, but then died from lack of moisture. Delayed germination has the same effect as delayed seeding by allowing weeds to establish and compete with forage seedlings. Forage germination and emergence was very uneven, particularly where the seedbed was not firmed with adequate packing and proper seed placement. Where a companion crop was seeded, such as oats or oat-pea mixtures, significant competition for moisture during that early dry period with the new forage seedlings has negatively affect establishment in some cases.

Too Wet

Heavy rains following the first week of June flooded and ponded for extended periods in some of the new stands, killing many potential plants. Where this occurred, many surviving seedlings are showing symptoms of aphanomyces root rot and other fungal seedling diseases. These plants generally appear stunted and have little potential to do well. Also, where cereal companion crops were harvested as forage, considerable compaction, rutting and traffic damage to new seedlings in tire tracks occurred.

Poor Weed Control

To complicate matters, both the dry May and following excessively wet weather challenged our ability to do effective weed control. 2,4-DB sprayed in late-May and early-June during the hot, dry weather suppressed some alfalfa seedling growth, with some symptoms of injury. The risk of injury to alfalfa seedlings is greatly increased when 2,4-DB application is made outside of the 1 to 4 trifoliate stage window, especially when the weather is hot and dry. Many new alfalfa seedings had very uneven emergence, which in addition to rain delays, made it challenging to stage 2,4D-B applications at the desired 1 to 4 trifoliate stage. In extreme cases, some direct seedings did not receive any herbicide at all due to wet soils, resulting in excessive weed competition with new forage seedlings.

Assessing New Seedings

How many alfalfa seedlings are required for a normal or acceptable stand? At a 15 lbs / acre seeding rate, we are seeding about 75 seeds / square foot. Normally, about 60% of these have emerged a month after seeding giving us about 45 seedlings / square foot. The following spring, about one-half of these have survived, about 20 – 25 plants / square foot. The following year we typically are left with about 8 – 9 plants with crowns large enough to have more than 50 stems / square foot. (Mature pure alfalfa stands with less than 40 stems / square foot should be rotated.) In dry years, germination is sometimes delayed, but stands often eventually become better than expected. This is not necessarily the case in wet years when seeds and germinated plants have died.

New seedings normally have 25 seedlings / square foot or more the seeding year. Healthy alfalfa stands have an amazing ability to compensate for low plant density by increasing the number of stems per crown. In a predominately alfalfa stand, you want to see at least 15 healthy seedlings / square foot to have an acceptable yield potential. These stands may have to be rotated earlier than normal. Assess seedlings for plant health and signs of aphanomyces root rot. Aphanomyces is an alfalfa seedling disease in wet soils that stunts the plants for the life of the stand. Unlike most other seedling diseases, metalaxyl (Apron) seed treatment does not control aphanomyces. ("Aphanomyces Root Rot In Alfalfa http://fyi.uwex.edu/forage/files/2014/01/ARR.pdf)

What Are The Options?

Each field should be walked and assessed on an individual basis. Variability within a field can make the decision making challenging. Patching small areas within fields can be difficult, depending on their size and shape. It is often easier to go over whole fields. The use of a no-till drill to overseed into a thin new seeding is much more effective than broadcasting or using a conventional drill. Driving a no-till drill across the stand will kill a few plants, but with low seedling counts the gain should be much more than the loss. Of course, soils must be fit so there is good seed-to-soil contact with minimal traffic damage. If some

Continued on page 4

Continued from page 3

healthy alfalfa is present but needs to be thickened, a reduced seeding rate should be used that is inversely proportionate to what is there (down to about 10 lbs / acre). Grass seed can also be included if required.

There is no alfalfa autotoxicity to be concerned about the year of seeding. Alfalfa needs about 6 weeks of growth after germination to survive the winter, and will generally survive if a crown develops before a killing frost. Similar to summer seeding, as a general guideline alfalfa should be over-seeded before the following dates:

2900 CHU areas - August 20th
2500 - 2900 CHU areas - August 10th
< 2500 CHU areas- July 30th.

Grass species can usually be successfully seeded up to 3-4 weeks later than these dates.

There are a number of scenarios, depending on the situation:

Cereal Companion Crop Removed

If the alfalfa stand is thin but the field is fairly free of weed pressure, the best option is to simply over-seed with a no till drill.

In excessively weedy fields, a glyphosate burndown may be required before reseeding.

Direct Seedings

These fields are typically very weedy.

If the weed pressure isn't too high, clipping to prevent weeds from going to seed before overseeding with a no-till drill may be an option.

A glyphosate burndown may be required in excessively weedy fields, and possibly followed by some vertical tillage to break down residue.

Crop Insurance is available through Agricorp that offers establishment protection for new forage seedings. (www.agricorp.com)

For more information, refer to:

"Successful Forage Establishment"
http://fieldcropnews.com/?p=9535

"Summer Seeding Alfalfa"
http://fieldcropnews.com/?p=3316.

5 Forage Establishment Mistakes to Avoid

Joel Bagg, Forage Development Specialist & DSM, Quality Seeds Ltd.

1. Not Seeding New Forage Stands Often Enough

Many alfalfa-based stands are simply too old, resulting in huge losses of forage yield. Alfalfa yields are usually at their maximum during the first year or two following the establishment year and then decrease. By the third year, yields have often declined by about 15-20%, and possibly 35% by the fourth year. That is a lot of yield to give up! There are many benefits from alfalfa in a rotation in addition to the improved soil health and environment, including: • 100 lb/ac (110 kg/ha) nitrogen credit to the corn crop following alfalfa in the rotation, and • 10 – 15% corn yield increase following alfalfa rather than corn after corn. The nitrogen credit is currently worth about $60. Even with $4 corn, the increased corn yield is close to $100. Adding these two corn crop benefits together, $160 goes a long way in paying the cost of forage establishment somewhere else in the rotation.

Forage stand rotation decisions should be based on forage yield potential, not on the cost of re-establishment. Establishment costs are typically less than 8% of the total cost-of-production (COP) of hay, with the seed costs often less than 4%. Land and harvest costs per acre change little as yields decline, so those costs increase dramatically on a lb of yield basis. Depending on where you farm in the province, the opportunity cost of land rental can represent over 40% of the COP. With high land and harvesting costs, lower yields cost much more than forage establishment costs. When in doubt, rotate!

2. Poor Packing Before and After the Drill

This is a big, but all too common mistake. Forage seed is very small, making good seed-to-soil contact essential for germination, particularly in dry soil conditions. A loose, lumpy seedbed dries out quickly, and lumps make the uniform emergence of young seedlings difficult. A firm, level, clod-free seedbed is very important for uniform seeding depth and good seed-to-soil contact. Avoid creating a soft, fluffy seedbed by deep tillage. Using a spike -tooth harrow before the drill loosens the soil rather than packing it. Soil should be firm enough at planting for a footprint to sink no deeper than 9 mm (3⁄8 inch). If necessary, pack before seeding, in addition to packing after the drill. Packing after seeding results in more rapid and even germination. Use press wheels or pull a packer behind the drill. Sprocket packers are preferable over smooth rollers to reduce the risk of crusting and to push any seed on the surface into the soil.

3. Neglecting Soil Fertility

Forage crops remove a lot of phosphorus (P) and potassium (K) and have high soil nutrient requirements. Alfalfa yields decline rapidly as soil tests drop below 12 ppm P and 120 ppm K. We are seeing more and more soil tests that are critically low in these nutrients, particularly K. In a recent East-Central Soil & Crop Improvement Association survey of 1,200 samples, 76% were below 100 ppm K! Be sure to soil test and fertilize accordingly. Suggested P and K application rates for new seedings are provided in OMAFRA Publication 811, Agronomy Guide, Table 3–7, Phosphate Recommendations for Forages, and Table 3–8, Potash Requirements for Forages. (http://www.omafra.gov.on.ca/english/crops/pub811/3fertility.htm)

(Don't Lose Hay Yield To Poor Fertility http://fieldcropnews.com/?p=3760)

Over the years, with our newer drills we have somehow lost our ability or our willingness to band starter fertilizer in new

forage seedings. Starter fertilizer can be especially advantageous in stands where P fertility levels are low to medium. Ideally, MAP starter should be placed 2.5 cm (1 inch) below the seed. Additional fertilizer required can be broadcast and incorporated before seeding. If sulphur is required, sulphate can be applied at establishment or elemental sulphur applied the previous year. (Sulphur On Alfalfa http://fieldcropnews.com/?p=9092)

4. Using Cheap Seed

Buying cheap forage seed is a poor way to save money. Significant performance differences exist between varieties. The cost of seed is only a very small percentage (typically < 4%) of the cost of producing forage. As land costs increase, the seed cost percentage decreases. The use of the best research proven forage varieties provides high yields of more persistent stands with better disease resistance and appropriate maturity. Using cheap seed has the potential to result in significant yield losses with more risk of disease and winterkill over the life of the stand. It takes very little extra yield to justify higher valued seed.

Certified seed sold under a variety name must meet specific requirements for germination and weed seed content. Forage seed may also be sold as "common seed" or as a "brand" that may be blends of different seed lots. Germination and weed seed content requirements are less rigorous than for certified seed. Common seed has no assurance of characteristics such as disease resistance or winter hardiness. The performance of stands established using common seed is unpredictable and will vary from year to year. The use of high performance, proven varieties, rather than unknown brands or common seed, is strongly suggested.

5. Poor Weed Control

Lack of weed control during the establishment period will impact yield and forage quality for the life of the stand. Perennial weeds should be eliminated before seeding. Herbicide control of broadleaf annual weeds at establishment is especially important in direct seedings. Determine the optimum time of spraying by the stage of development of the new seedlings. The risk of injury to alfalfa seedlings is greatly increased when 2,4-DB application is made outside of the first- to the third-trifoliate stage. 2,4-DB can suppress legume growth for a period of 2 – 3 weeks and severe injury can occur under drought or high temperatures. Uniform emergence as a result of good seedbed preparation and packing make it easier to properly time the herbicide application with reduced risk of legume injury. Target the first-trifoliate stage, where weeds are smaller and easier to control. Grower experience suggests that injury to seedling alfalfa plants can be minimized when reducing the lowest labelled rate of 2,4-DB by 25%. A reduced rate may reduce the level of weed control. (OMAFRA Publication 75, Guide To Weed Control. http://www.omafra.gov.on.ca/english/crops/pub75/pub75ch10.pdf)

Refer to "Successful Forage Establishment" http://fieldcropnews.com/?p=9535.

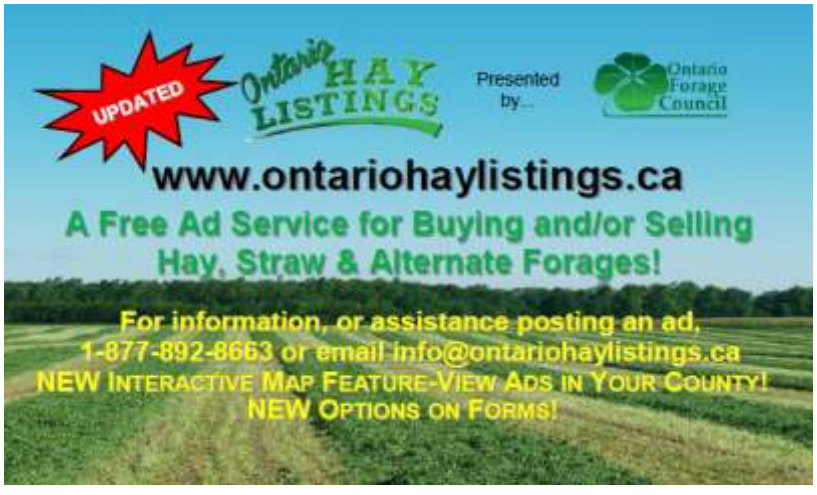
An Exciting Announcement for Forage Growers

Ontario Hay & Forage Co-Operative

We have really exciting news to report on hay export. A group of members of the Ontario Forage Council Export Committee have established a new Coop to build and run a large double compression hay export facility. We are looking for Coop members and want to talk to interested farmers to supply hay and join the Coop.

Please contact us and speak to us at the Forage Focus in Shakespeare and Winchester, we will have displays there.

Fritz Trauttmansdorff, Chair



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