

CropLinks

information on forages, corn and cereals

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Does Less Fertilizer Mean Lower Quality Forage?

With the high price of chemical fertilizers many farms reduced the amount of fertilizer they applied to forage stands this spring. Without adequate nitrogen and potassium grass yields will be down. As well crude protein levels are expected to be lower. Lower crude protein levels will mean greater protein supplementation in the ration. If there is a bright side to any of this it is that fertilizer has little or no effect on forage digestibility. The biggest factor affecting forage digestibility (feed energy) is time of cut. Time of cut determines the amount of fiber in the forage and the digestibility of the fiber. To maximize the yield of highly digestible forage, cut forages when the bulk of the grass is at the early to late boot stage.

It has been a challenging spring for croppers with substantial alfalfa winter kill on some farms, these crazy fertilizer prices which has meant mostly nitrogen only applications for legumes, grasses & grains and a fairly significant acreage of Roundup Ready corn being grown. This version of CropLinks looks at these issues and also discusses fungicide use on grains, plus invites you to an upcoming forage variety test tour. Best of luck in getting the 1st cut forage quality needed for your livestock!

Lots of Winter Kill

The long winter of 2008-09 certainly took a toll on many forage fields. Some say it is the most winter kill they have seen in over thirty years. The worst areas are where the snow turned to ice and lay there for weeks. The legumes took the biggest hit, but even some grass fields had areas that were wiped out.

Forage stands thinned by winter kill can be improved by interseeding with legumes and grasses. If the stand is weedy it is very important to first apply a broadleaf herbicide. It is also important to clip if the forage growth is more than 5 to 10 cm tall. It is not recommended to seed alfalfa into an alfalfa stand that is older than one year.

Though clover will often establish by broadcasting seed onto the soil surface, it is very difficult to establish grasses this way. The best method to establish both grasses and legumes into an existing forage stand is to use a no-till drill. The best time to overseed a hay field is in the spring. Harvesting the field early will give the new seedlings an opportunity to compete with the established plants. Though not as effective as spring, hay fields can be no-tilled in late summer following second cut. Many forage species, particularly timothy, can establish quite well in the fall. If overseeding a pasture it is important to keep the pasture grazed down to allow the new seedlings a chance to establish.

A more reliable approach is to completely kill the existing stand with a broad spectrum herbicide like glyphosate and reseed. For no-till, this approach works best if the existing stand is sprayed out in the fall and no-till drilled the following spring.

When re-seeding fields susceptible to winter kill consider making timothy the major component of the mix (at least 50% by weight). Timothy is our most winter hardy forage grass. Other grasses such as meadow fescue establish better than timothy when seeded into a live stand, but are far more susceptible to extreme winter conditions. Legumes are even less winter hardy, but when quality is important legumes have to be a part of the mix. It is recommended that the legume content in fields susceptible to winter kill be kept to around 20%.

Forage Variety Test Site Open House

WHEN: Thursday night (7-9 pm) on June 11th

WHERE: Aylesford area field on Brooklyn Street belonging to Langelaan Farms (couple kms east of their dairy facility). Signage will be posted marking this Maritime Forage Test site.

WHY: Opportunity to view 1st cut growth on the 20 alfalfa, 19 timothy & 12 red clover varieties under test. The 2008 yield test results will also be discussed.

WILL YOU HAVE TIME? You may be very busy with forage harvest, but this is a great chance to see heading differences between timothy varieties & discuss other forage topics. Call Jack at 670-5777 for more info.

Cereal Fungicide Decisions

Deciding whether a cereal fungicide treatment will put more money in your pocket is a tough decision. Is there enough leaf disease symptoms to reduce yield significantly, what fungicide should be used, what application timing??? Here are some of my thoughts on cereal fungicides based on 2007-2008 trials done by NSAC/NSCDI on Bayer products Stratego, Proline and Folicur, some trials with Tilt, plus observations on Valley farms.

Spring Wheat – the biggest payback on fungicide likely exists with this crop, providing there is good yield potential in specific fields from early planting, good nitrogen fertility and plant population. In 2008, a trial on AC Helena at the NSAC farm, showed that both the early timing of Stratego (Growth Stage 15 which is the five leaf stage just prior to tillering) or the later treatment of either Stratego or Tilt (Growth Stage 39 when last leaf is fully emerged, 8-10 days prior to heading) produced 0.5 t/ha yield increase over the untreated plots. An early timing of a Tilt, Stratego or Bumper fungicide application (GS15) could be tank-mixed with most of the commonly used herbicide. Consult the fungicide label or call us if you're not sure about the mixing of a particular fungicide-herbicide. By waiting until GS39 with spring wheat, you can see what foliar disease levels do develop, and then apply Tilt, Stratego or Bumper at early heading to provide about 4 weeks of septoria disease protection starting then, if it's warranted.

Spring wheat is also more prone to fusarium head blight (FHB) disease which can reduce yield and elevate DON vomitoxin levels in the grain. This FHB disease in 2008 was very prevalent in central-eastern NS & PEI, with all the wet weather during July-early August. The product thought to have the most effectiveness on FHB is Proline. The application timing on Proline is very specific where you have a 3-4 day spray window between late and full head emergence. Proline is about twice the product cost (\$65-75/ha) of the septoria disease protectants mentioned earlier. If using Proline read the label to understand application timing, adding a surfactant, or other pertinent details.

Barley – there usually isn't as much response to using a fungicide on barley compared to spring wheat. The recommendations with most barley fields would be to wait until the flag leaf to early heading (GS37-45) and if there is a fair amount of leaf disease then consider a treatment of Stratego, Tilt, Bumper or the equivalent product. The early fungicide treatment in the 2008 trial, when herbicide would be applied didn't improve yield.

Winter Wheat – last year (and most years) there was no economic or statistical response on trials done on both Pioneer25R47 or Freedom at two different Valley sites. None of the ten different fungicide, fungicide combinations, application timings or nozzle types produced more yield than the untreated check. There is winter wheat grown however, on some sandier soils and/or in "tighter" veggie-corn-wheat rotations that should likely see a flag leaf-early heading fungicide applied between June 3-10th. Most other winter wheat fields in good forage-corn-wheat rotations likely won't give you a payback on fungicide. Call us if you have cereal disease inquiries.

Weed Control: Timing is Everything!

In spring grain crops there is sometime a tendency to spray weeds too late with products like Buctril M, Refine Extra & Infinity which are safe on the crop until the flag leaf is emerging. According to some new research out of University of Guelph this late herbicide application, is way too LATE. In chatting recently with Mike Cowbrough, Ontario Weed Specialist he says that particularly on later planted spring wheat & barley that weed control should be applied by the 3-4 leaf stage (prior to tillering).

For RR soybeans, weed control needs to be applied by the 2nd trifoliolate (approximately 22 days after emergence based on U. of Guelph data) otherwise yield loss will start to occur at about a 1 bushel per day pace. With RR corn, the critical post emerge timing for glyphosate is the 3 leaf stage of corn. If you get busy with forage harvest and don't get your RR corn sprayed until 10-14 days later at the 6 leaf stage the Guelph research says a yield loss of \$ 38/acre can occur in heavy weed competition (this yield loss calculation is based on \$ 250/tonne prices).

Lastly, we get questions on whether to use a tank-mixed residual herbicide in with glyphosate at this 3-4 corn leaf stage application. A 2008 OMAFRA factsheet by Cowbrough & Sikkema says that to date, research trials conducted by U of Guelph have shown that a single application of glyphosate made at the 3 leaf stage can protect Roundup Ready corn yields. This is consistent with research results from Wisconsin. The Guelph research had a post-emerge tank mix of atrazine/Banvel II with glyphosphate (applied at 3-leaf), compared to glyphosphate alone (3-leaf) and also two glyphosate applications (at both 3 & 8 leaf corn stage). In looking at strictly weed control (not yield) Cowbrough & Sikkema say "although timing glyphosate at the 3 leaf stage of corn may protect the full yield potential of the crop, it may result in unacceptable weed control due to late flushes of annual weeds. The incorporation of a residual herbicide may improve harvesting efficiency and reduce the amount of weed seed returned to the soil."

If you are wanting to tank mix a residual herbicide with glyphosate at 3 leaf stage, then choosing that herbicide(s) depends on whether the target is annual grasses, triazine resistant broadleaf weeds or both.