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That ALL Important First Cut

From all reports forage crops came through the winter in very good shape. With all the moisture of late it looks as though yields should be good. The big question yet to be answered; will we have the weather window we need to harvest a top quality crop? The last two years have been a real challenge and have clearly shown us the value of quality forage and just how detrimental a delay in harvest can be to quality. The lesson I have learned is that if top quality forage is what you want then you may have to sacrifice some yield to get it. In other words if it is the end of May beginning of June and the weather is co-operating then I think you should harvest.

Of course the ideal time to harvest is when the grass is at the late boot stage. At this stage the yield of quality forage is maximized. Orchardgrass will reach this stage first followed by meadow fescue and tall fescue, then bromegrass, reed canarygrass and finally timothy. According to a recent study at Cornell University meadow fescue and tall fescue have the lowest fiber content (%NDF) and the highest fiber digestibility (NDF digestibility) when harvested at the boot stage. Orchardgrass and Timothy were much higher in fiber and timothy was much lower in digestibility than the other grasses. In grasses fiber digestibility is almost perfectly correlated with in vitro true digestibility.

Table #1. Forage quality data from various grasses at the boot stage planted in Ithaca, New York in 2003 and harvested in 2004.

Species	NDF (%)	NDF digestibility	In vitro digestibility
Meadow Fescue	53.7	86.4	92.6
Tall Fescue	55.9	77.4	87.3
Orchardgrass	63.2	77.5	85.7
Timothy	65.5	70.7	80.7

To determine the best time to harvest an alfalfa-grass stand for optimum fiber level (%NDF) Cornell University has developed a system for predicting forage quality based on the height of the alfalfa and the percent grass in the stand. The work was based on sampling and separating mixtures from fields across New York State in 2004 and 2005. Using table #2 you can determine at what point to harvest an alfalfa-grass mixture by measuring the height of the tallest alfalfa stems. For example a 60/40 alfalfa-grass stand should be harvested when the alfalfa is 26 inches high.

Percentage Grass in the Stand	Maximum alfalfa height in inches at harvest	Estimated stand NDF
10	33	39.1
20	31	40.7
30	28	41.4
40	26	43.0
50	23	43.7

Table#2. Target alfalfa heights for harvesting alfalfa grass stands for quality. Adapted from "Grass Silage Management Issues" J. Cherney et al. Proceedings from "Silage for Dairy Farms". A conference for Dairy Producers January 23-25, 2006 Camp Hill, Pennsylvania.

Bill McCurdy Recently Honoured

Bill McCurdy, Bidalosy Farms, Old Barns was recently inducted into the Canadian Soil and Water Conservation Hall of Fame for his "outstanding contribution to soil conservation". The purpose of the award is to recognize the dedication and commitment of leaders in soil and water conservation. Bill McCurdy and Bidalosy Farms pioneered no-till farming in Nova Scotia. No-till farming has become a key soil conservation practice reducing soil erosion through improved internal drainage and crop residue. Starting in the early 1990's the farm adopted no-till cropping practices. In the beginning there were some real challenges to making it work. The learning curve was pretty steep. Andrew McCurdy will tell you that you have to approach no-till farming as a system; a system that involves all aspects of crop production including insecticides, herbicides, fungicides, fertility management and crop rotation. They find the biggest benefits to no-till are less tillage, improved soil structure and soil health, improved internal drainage, improved trafficability, greater drought resistance and much less erosion. Today the farm grows corn, small grains, soybeans and forage all under no-till.

Congratulations, Bill!

Wheat Disease Control Strategies

The hardest decision wheat growers need to make is concerning flag leaf and head disease control strategies. Will it pay me to spray? What fungicide do I use? What application timing?

From 2007 trials done by NSAC/NSCDI on new Bayer products Proline and Stratego the yield payback from either of these products was considerable on winter wheat, spring wheat and even barley (keep in mind this was from 1 site and 1 year only, but will be done again in 2008). However, multi-year trials done prior to 2007 by these researchers have shown an inconsistent payback from fungicide use. With feed grain and milling wheat prices being fairly high now, the potential for payback on disease control is better.

Here are some general things to consider in making the decision to use a fungicide on your cereal crop in 2008. If your wheat is grown in a long forage-short term corn or wheat rotation, with good fertility, the septoria and fusarium pressure should be lower. Those growers in "tighter" veggie – corn – wheat rotations, particularly on lower organic matter (sandy soils) or lower fertility situations will have more disease pressures.

You will need to scout fields regularly to see how much septoria flecking is on the lower part of the canopy and determine if you need to treat at flag leaf emergence (Growth Stage 39) or whether you can wait for the late boot stage (GS 47) or until full head emergence (GS 59). The

longer you can hold off without penalizing your yield the longer that disease protection will carry into the grain development stage. You can tolerate some septoria flag leaf damage, but keep in mind with wet & hot conditions that serious septoria flecking develops into streaked areas where the leaf tissue is destroyed. The flag leaf (final or upper leaf) and head glumes are the "solar collectors" needed for grain sizing.

General recommendations are a dangerous thing, but in **spring wheat** if previous crops have had a history of septoria pressure, you may want to consider a half rate of Tilt, Pivot, Stratego, Headline or Bumper with your herbicide prior to tillering. Check herbicide/fungicide labels carefully to see if mixing can be done. There are a few herbicides, like Infinity, that the labels says can't be mixed with Tilt-like products. Follow this up with a full rate at early head emergence (the decision to use the higher cost Proline over these other products is more automatic on milling wheat where fusarium can reduce flour quality). If using Proline for fusarium protection, follow the label closely for application timing.

In winter wheats, most fields are currently between GS 37-39 (at May 28th) with the more advanced fields going to head out the first week of June. There are fields now that need septoria control, some that can wait until heading, others that look so clean now it's doubtful that a head spray will pay. Call us if you have cereal disease inquires, or are now more confused than ever in making a fungicide treatment decision. Good luck!!

Infinity Herbicide Update

At grower meetings this winter Bayer got to unveil Infinity its new broadleaf weed control herbicide for cereals. In a field tour recently with Dave Power (Cavendish) and Sonny Murray (Scotian Gold) we got to see how Infinity worked in different winter wheat fields. Here's generally what we saw, but keep in mind that most of these fields were being checked just 2 weeks after application and will be re-assessed later.

Infinity seems to be quite good on cleavers, henbit and mustards, and in no-till planting suppresses dandelion – burdock and wild carrot. In two different situations where the chickweed was fairly advanced when Infinity or Infinity plus ammonium sulphate was applied in winter wheat, the Infinity seems to be weaker on chickweeds than Refine Extra (but Refine is weaker on cleavers than Infinity). Other less common weeds in winter wheat that Infinity didn't handle were field pansy and speedwell.

Infinity also has registration for use in spring wheat, barley and triticale. On the label replanting interval for corn, soybeans, alfalfa, and cereal crops is 10 months after an Infinity application. In talking with Claude Laurin, Bayer sales rep. for Ontario – Quebec, he said the Infinity label registration was mostly based on Western Canadian testing, and they are now checking the replanting interval for veggie and berry crops this year in Ontario. For now Bayer is suggesting with all vegetable (especially lettuce, spinach, cole crops) and also all berry crops, that you wait 22 months after Infinity is used to re-plant to these crops. Claude also said more weeds such as common ragweed will be added to the label as this new Ontario research on Infinity is completed. I'd like to hear your comments on Infinity results or view spring wheat or barley fields that get Infinity, so keep me posted.