



ADVANCED AG SYSTEMS'

Crop Soil News

<http://www.advancedagsys.com/>

May 2016

"It is the crops that feed the cows that make the milk which creates the money."

Bad News/Good News

Coming off of an El Nino winter we are moving ahead of the long term average for heat unit accumulation. Yes, we have had cold spells, but with very warm weather in between. This adds to the growing degree day accumulation which predicts the maturity of the haylage. Temperatures have consistently reached the upper 50 and lower 60's; which is perfect for cool season forages. First cutting haylage is normally the best legume/grass haylage of the season so it is important to get it right. The right stage of **harvest is much sooner than you think.**

Over the last decade of my research, it has been consistent that winter triticale is ready (stage 9 – flag leaf stage) a day or so before straight grass fields are at optimum. We mow the triticale and continue mowing the cool season grasses. Then we move to the grass alfalfa mixes and finally finish with the straight alfalfa. All high quality at harvest.

My triticale and much of that across central New York is at stage 8. By the time the continuous cloudy and rain stops next week, stage 9 will be there. **This is a week earlier than last year.** The good news is that completely opposite to last year, the cool to cold temperatures this year will allow for much higher digestibility. Tempering that optimism is that extensive cloudy weather will only have 15-20% of normal sunlight. Photosynthesis is then lower than respiration and the crop has low sugar levels. Hopefully you will get a day or two of sunshine before you have to harvest so you have enough substrate for fermentation, and high energy for milk production.

The cool season grasses, although short because of the relatively dry conditions in April for us, are still marching toward NDF digestibility maturity. Every analysis I have seen shows significant profit advantage to stopping corn planting and get the first cutting in at peak quality. **YOUR INDIVIDUAL FIELDS SHOULD DETERMINE WHEN YOU SHOULD START HARVEST, using YOUR alfalfa as a predictor.** The height of alfalfa can predict when it and grass fields, in your local climate, condition, and individual field, should be cut. It simply involves using a ruler and the following table:

Alfalfa in/near a Grass field is 13 inches tall	Start to Cut Your Mostly Grass Stands
Alfalfa in a 50% Alfalfa: 50% Grass Stands is 23 inches tall	Cut Your Mixed Stands
Alfalfa in greater than 80% Alfalfa Stand is 30 inches tall	Cut Your Mostly Alfalfa Stands

A more precise system is to go to <http://www.forages.org/index.php/tools-grassman> Dr. Cherney of Cornell developed this slick, accurate system. Click on the grass, alfalfa-grass, or the alfalfa estimator. For the latter two insert the alfalfa height, percent grass, NDF

Advanced Ag Systems
Research, Education, Consulting

target, and the weather (normal, hot, cool) and **it will tell you how many days until that field on your farm under your conditions is at peak quality** for harvest. Using the predictor system to determine what fields to harvest first, allows you to harvest early fields and later fields at peak quality. Thus you have high quality forage from **ALL** fields, even though the harvest may have started a week or more later for some fields. If you have fields that are in a low, warm, sheltered location, they **are ready earlier** than the rest of the farm. A well drained soil will have forage ahead of a poor drained soil. A north facing slope will be further behind a south or south east facing slope. A clear alfalfa on well drained south facing field could be ready before a grass field on a wet north facing slope.

In addition to when you harvest to reach peak quality; how you harvest is just as important. Wide swath is critical for any chance of same day haylage. To dry forage you need air movement around and under it. If you scalped the field not only will it not dry as well, the tedder and the subsequent rake/merger will need to root in the dirt in order to pick up the crop and move it to a windrow.

So, what is a little dirt in the tons of forage? For starters you have just inoculated a highly digestible, high sugar forage with a range of wild and not so beneficial bacteria and molds. They are not good for your cows or for making silage. Second, Dr. Sniffen of Fencrest LLC found that going from **9 to 11 % ash will knock 1.9 pounds of milk off per cow per day**. On a 100 cow dairy this is **loss of over \$11,590** in a 305 day lactation of a high forage diet of 50% legume. I calculated for two mid west farms this year that simple ash levels were **costing them \$65,000** on one, and **\$75,000** on the other from lost milk production by feeding 2% more ash. Adjusting cutting height, and/or putting on extended skid plates will leave a taller stubble to allow for tedding plus raking/merging without skyrocketing ash levels.

You need to **look at YOUR forage ash samples** to see if you are leaving milk in the field by mowing to close. Yes, you can rebalance the ration at the cost of more grain in order to reach the same milk. Even this has its limits as Dr. Sniffen clearly points out: “the NDF concentration will go up; they balance on the presumed analysis and the fact is that the NDF is not really the higher NDF but the lower NDF. Thus they end up with inadequate effective NDF, and the cows get metabolic consequences.”

Bottom line: flat knives, higher stubble for maximum forage quality.
3 Inch cut height Alfalfa; 4 inch cut height Grass



This intensively managed grass field was cut to short. If it regrows at all, it will have less yield/year and many more weeds than mowing at 4 inches. Adding insult to injury, because of increased ash, it will produce 2 pounds of milk/cow/day LESS than if it was mowed at the optimum height. A grass field should look green when you finish.

Sincerely,

Thomas Kilcer,
Certified Crop Advisor

172 Sunnyside Rd
Kinderhook, NY
12106

Tel: 518-421-2132

tfk1@cornell.edu

**The Helping
Hand
to Better
Agriculture**

