



ADVANCED AG SYSTEMS'S

# Crop Soil News

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

May 2010

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

## Research Farm Field Day

Tuesday June 22

See Page 3

## Good News

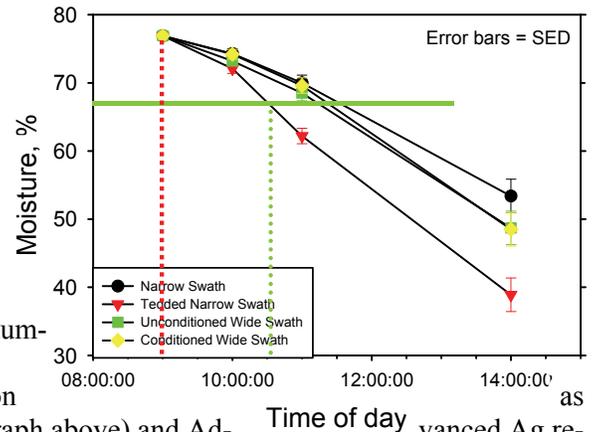
The weather of May has been perfect for producing forages of very high digestibility. The sunny days produce lots of highly digestible sugar and starch with very cold nights limiting the respiration losses of that energy. The table at right can be used to determine where your forages are for harvest. If you are still planting corn, STOP. Your losses in haylage quality (and the increased cost of grain to maintain production) are greater than the small yield loss in corn.

Alfalfa near the 100% Grass field is 15 inches tall	Cut Your Pure Grass
Alfalfa in 50% Alfalfa: 50% Grass Stands is 24 inches tall	Cut Your Mixed Stands
Alfalfa in nearly Clear Alfalfa Stands is 30 - 32 inches tall	Cut Your Clear Alfalfa

IF YOU MISSED A HARVEST WINDOW SKIP THAT FIELD AND GET THE ONES THAT ARE APPROACHING PEAK QUALITY. You can't make a silk purse out of a sow's ear and you can't undo quality loss in grasses if they have gone by. Save the missed fields for later cutting and feed that forage to the heifers and dry cows.

## Implementing Same Day Haylage in 2010

This is the year for same day haylage. Maximizing forage fed minimizes cost of nutrients for high milk production. Wide swath—same day haylage has more of those nutrients. Farms, because their mowers only swath 60% and are too small for their herd size, still struggle to capture the major profit increase of same day haylage. There are a number who have gotten around this road block. The shortest change is to add tedding of haylage as soon possible after mowing. Dr. Cherney at Cornell (graph above) and Advanced Ag research has found that mowing and tedding will spread the crop to full width, with a concurrent HUGE increase in the drying rate. Note on the graph that mowing at 9 am and immediately tedding to a full swath width, haylage was ready to chop by 11:30 while the other was in the afternoon.



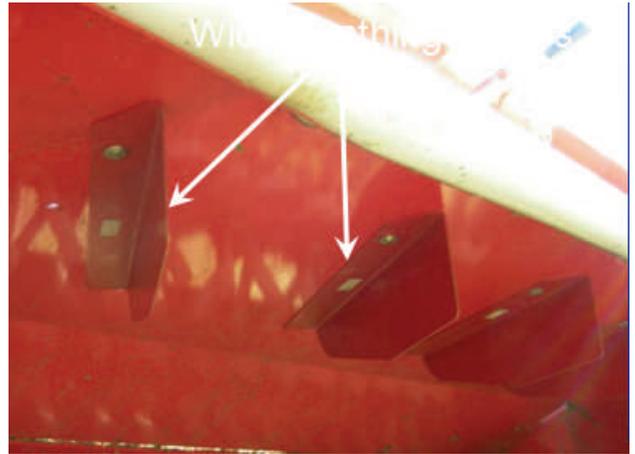
Yes, until you get a wide swath mower, tedding means an extra trip over the field that costs \$8/acre for labor, machinery, and fuel. Our work on same-day-haylage found 300 lbs. more milk/ton of dry matter. For first cutting haylage this means \$75/acre increase in potential milk for the feed if it is harvested wide swath – same day. Thus the tedding returns 10 X over the cost to do it. If it rains for 2 – 3 days the return is even greater than that.

**Rocks:** if you have stone issues, raising the cutter bar to leave a higher stubble and then setting the tedder and rake to the top of the stubble will leave most, if not all the stones out of your chopper.

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Research, Education, Consulting

Some farms roll their fields early in the spring to push down stones the frost heaved up.

**Mower issues** There are available deflectors (picture at right) that you mount on the underside of some mowers (remove all side shields) that will re-spread the swath to nearly full width. Thus you can still use the mower you have but reach >80% of cutter bar width and NO tedding. If you have conditioning rolls, leave them as it will make minor difference compared to the huge effect of achieving nearly a swath that is nearly 100% of the cutterbar width.



Some disk mowers, even wide swath with no conditioners, will still make multiple small windrows that delay drying. The higher the crown of the mower unit and the more angle of the knife, and the shorter the material, the greater this delayed drying effect. Switching to flat knives (it will leave the lodged – it is junk anyway) will reduce this effect. Some companies make flat disk drum units that allow the material to flow without lateral movement. If all else fails, a tedder will also correct this problem.

**Triticale** More farms are discovering the very high forage quality (better than BMR corn with 2x the protein) of flag leaf winter triticale forage in a double crop system. An advantage/disadvantage of this very high yielding crop is that it is very high yielding – with double the drymatter/acre of first cut alfalfa. This means you have a lot more material to dry. Conditioning made no difference. Tedding made a huge difference and allowed same day halyage at 65% moisture, capturing the very high (8 – 9% sugar is common) forage quality.

#### More Acres In A Day:

Research we conducted has found that mowing in the evening in narrow swath will burn off the energy through respiration. Mowing into a full width swath at sunset, on nights with radiant cooling (mostly clear- colder the better), preserves the some of the digestible components. In a full swath the next day sun will rebuild any lost carbohydrates. The haycrop mowed at 9:30 am dried faster than that mowed earlier or the night before, but all were ready to chop that day. This only works if you have >80% OF CUTTER BAR SWATH WIDTH and very clear cold nights. You don't have to wait for the dew to dry in wide swath. For farms with limited mowing capacity, mowing in the night, in full width swath, could allow you to get more haycrop harvested in one day yet keep the high energy in the forage. Mowing in the heat of late afternoon and leaving it over night will not preserve the forage energy. For some farms with a dedicated person for mowing, shifting their hours to start early in the morning and wide swathing will greatly increase the number of acres mowed in a day.

With the milk price dropping, buying your way to profitability is not going to work in dairy. Farms achieving high quality forage are **feeding over 60% forage** in the diet and some are reaching 70% while maintaining high milk output. It all starts with forage quality.

## See Research Farm Field Day Opportunity on Next Page June 22

Sincerely,

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Thomas Kilcer,

MAY 2010

**The Helping  
Hand  
to Better  
Agriculture**



# Valatie Research Farm Field Day

The cutting edge of the latest research

## New Uses for Old Crops & New Crops for Old Uses

Sponsored by

Cornell University

Cornell Cooperative Extension

Advanced Ag Systems

**Tuesday June 22, 2010**

**12:30 – 3:30**

**125 State Farm Road**

**Valatie, NY 12184**

**Aeration Tillage Demonstration:** a new tillage system that minimizes rocks to pick, speeds seedings in one pass systems, and can capture \$50 of N/ acre and nearly eliminate smells when spreading stored manure. Adaptable to large and small farms.

**Teff:** an ancient crop with new uses as high quality dairy forage, horse hay. High yields of 4 – 5 tons of dry matter/acre – low nitrogen use. Easy to dry.

### **Winter Triticale Research Day In-depth Special Field Seminar:**

Harvest at flag leaf stage for more milk/ton than BMR corn.

Harvest at early head for 4 – 5+ tons of high quality head straw without lodging issues

Harvest at soft dough for equal or better than Corn Silage on marginal ground.

Learn how to get 15 – 20% yield increases by double cropping with summer annuals

Winter triticale Varieties. See both available varieties and newest experimental lines.

Winter triticale Management: Planting date, fertilizer, harvest management for optimum results.

**Short Season Corn for Double Crop in NY** – does it have to yield less? Learn how to optimize yield from shorter season corn and increase yearly yield 25%. What experiments are pushing yields up even further?

**85 Day One-Cut BMR Sorghum** Not sorghum sudan, but a one cut BMR sorghum we are testing for a high yielding, high quality summer annual to double crop with the winter grains but use the same drill and harvesting equipment. Why there are no drying issues with this crop.

**Red Clover** the ugly duckling of the legume forage world is about to become a swan. Clover has higher digestibility than alfalfa and the protein is protected as true protein to the mouth of the cow. Learn how to dry it for 65% moisture silage as fast as alfalfa.

Contact Steve Hadcock, 518-828-3346 Cornell Cooperative Extension in Columbia County for further information. No Pre-registration required. Will be held rain or shine (hopefully shine)