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Crop Soil News

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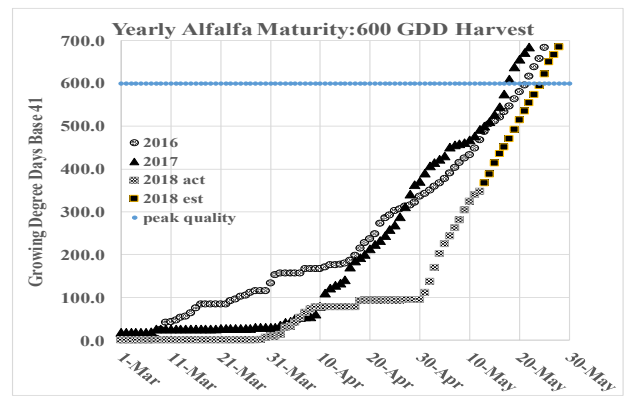
May 2018

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

It is Getting Late: But Then it is Not

This season for the Northeast and Northcentral has one of the latest dates to start planting corn. Planting earlier would have made a muddy mess of the field, severely restricting yields all season. The cold and wet would probably have decimated the stand. So we waited and are now full-tilt planting corn. It is mid-May, shouldn't we be worried about the hay crop as we are usually starting mowing about now. The good news is that while the corn is going in late, the hay crop is also one of the latest I have seen in many years. Depending on the haycrop makeup, you may still have some room between planting corn and cutting haylage.

You can get a feel for how early/late the harvest will be from the calculations for Growing Degree Days for straight alfalfa in the region (see graph at right). When it reaches 600 GDD for the area alfalfa is at about peak quality for the quantity (determine your individual fields below). For my area in **2016** we had a very early start but a cool April slowed the crop and optimum harvest window opened on **May 22**. **2017** was cold until it hit April and then it started cranking without looking back. The optimum harvest window opened on a relatively early **May 18** at 600 Growing Degree Days. **2018** has been something else. Most of March across the northern US and Canada was snow covered so there was no early growth whatsoever. Adding insult to injury, a major snow storm came across around April 14 to assure that any legume trying to turn green was not going to see the light of day. Fortunately, the season went from winter to summer in 48 hours. We had snow on Sunday April 29 and 90 F on Wednesday, May 2. It appears that once the rain moves out, the rest of May (and most of June) will be normal to slightly above normal temperature so the alfalfa harvest window is targeted (guesstimate) as being a relatively late **May 25**, as we are presently **running 30% behind** last year in growing degree days. The growing degree day is simply a general target where you adjust your management from year to year

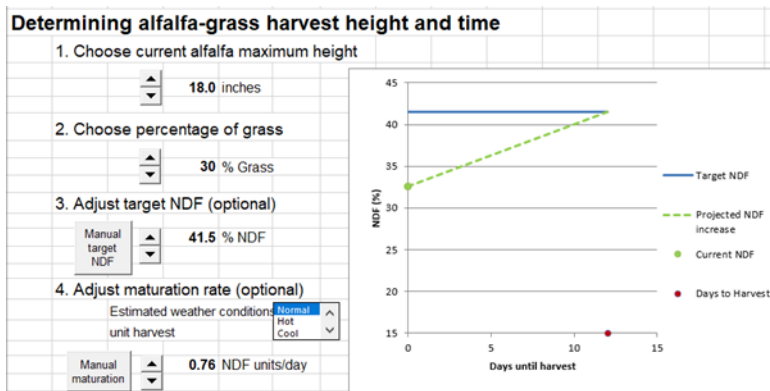


Advanced Ag Systems
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To know EXACTLY for YOUR FARM, YOUR FIELD, YOUR ALFALFA STAND, all the top farmers are utilizing Dr. Cherney's system of measuring the height of the alfalfa and the percent grass in the stand to determine when is the optimum time for harvest. You can find this in (<http://www.forages.org/index.php/tools-grassman>). An example of the calculation you can get for your field is on the next page. With 18 inch tall alfalfa in a field with 30% grass, you will need to be harvesting in 12 days under normal weather. **Location, slope direction, and drainage will have an enormous influence on harvest date for each field this year.** Go to each field and make this calculation. Then list all the fields

from earliest to latest. That is the order you harvest them. If a field on the list gets rained out, skip that (for later harvested dry cow or heifer forage) and continue on the list. **DON'T MAKE THE REST OF THE FORAGE LATE BECAUSE OF ONE FIELD'S LOST HARVEST WINDOW!** After you get all the peak quality fields harvested, then go back and get the missed ones.

Keep in mind that nearly all grass fields are often ready two to three weeks before an all alfalfa field is ready – yet both have the same high milk producing ability. The earliest (after winter forage) to harvest are straight grass fields. When alfalfa is 13 inches tall the fields of nearly straight grass are ready to harvest. This range is further stretched or compressed if the field is south vs north facing. A well drained field will be ready before a wetter one. Yet the wetter one may be all grass so you need to get out of the truck, or off the horse, and LOOK and MEASURE.



This is the actual input/output from Dr. Cherney's site at forages.org. From it you can determine the number of days to optimum first cutting harvest; and then put them in the order to be harvested. The result can be all forage of high quality.

Winter Forage Harvest Adjustments?

For those growing winter forage, harvest will highly depend on where you are. Pennsylvania and Ohio had warmer conditions than New York, New England, or Wisconsin/Michigan/Minnesota. Harvest of very early planted rye forage has started near me and the triticale is at peak in Ohio and Pennsylvania. As with alfalfa/grass, drainage and slope will shift maturity. Both quality and yield are very high. Unfortunately the weather has been brutal across Ohio/Pennsylvania to get this forage harvested. It is ready and they are facing a week of rain. Hopefully New York and Upper Midwest will have a better weather next week.

This is the year for wide swath same day haylage. You may only get a day of sunny weather. Mow winter forage wide (swath 80% of cutter bar width). We suggest no deflector shield/tarp on back for a loose fast drying swath. **Tedding** two hours after mowing winter forage is also **going to be critical to drying** this very heavy, high quality crop in the short windows we have. Even a full width winter forage swath is too thick to dry in one day unless tilled. The short video <https://www.youtube.com/watch?v=bmIounLulms> explains the critical details. Last year was wet, yet a farmer bought a large modern tedder for his winter forage. He used it on all of his hay crop and reported it made the difference between high energy same day haylage, and low energy heifer feed. This year a nearby farm tried tedding and found a major reduction in moisture by getting the lower layers into what sun did shine.

What if I still can't get a weather window to harvest?

There are two options for weather delayed harvest of winter forage. The first is for areas to the north that have been having and continue to have very cold nights. In 2013 we had temperatures at night down into the 40's and even the 30's (31F one night). We happen to be doing a stage of harvest study and the results can be seen in the table at the right. In spite of missing the optimum harvest window, the forage was still of very good quality. **The quality of warm/normal triticale was still good (>60% NDFd 24) as long as the head was still emerging and stretching upward.**

	2013 Cold	Warm/normal	2013 Cold	Warm/normal
	IVTD 24	IVTD 24	NDFd 24	NDFd 24
stage 8	86	88	74.5	74.75
Stage 9 Flag	86	81.25	74.25	67.5
Head Emerged	83	80	70	67.25

Once the head reaches full extension, the NDFd 24 dropped below the good forage level and needs to be separated for heifers or the low group cows. So if below normal temperatures continue until after the rain passes, the forage may still be useable even though the head has started to emerge. Yields were 24% higher than flag leaf so tedding is critical to getting this mass of forage dry to ensile. After that we use Option #2 on the next page.

For some farms, Option #2 may be the best bet. This is where we **allow the winter forage to mature to late milk or early soft dough stage**, and then harvest for the low group, heifers, or dry cow groups. Yields will be way up with my research cranking out 17 tons of 35% dry matter silage. A farmer who has been harvesting soft dough triticale targeted directly for his dry cows (no manure so low potassium) reported averaging 18 tons of 35% dry matter silage. This is a common stage to harvest in the far west as it gives the highest yield/acre. A number of choppers there have direct cut heads available for harvesting this late stage winter forage by directly cutting and chopping. At the risk of being lynched by all the farmers set up for wide swath, this material can be mowed directly to a windrow and the chopper can chase the mower around the field as the moisture level does not require any drying for ensiling. Using an inoculant that specifically assists in breaking down cell walls could be an additional asset. Because of the dry forage and stiff hollow stems, chop it shorter than regular winter forage for better packing.

Dr. Charles Sniffen, of Fencrest LLC looked at the resulting forage analysis (see table below) and concluded “that it was intermediate on protein, moderate on energy, with a digestibility that will not inhibit intake, for good heifer growth without getting them too fat.” Because this is coming off in early/mid June, it may be to late for corn but perfect for a

BMR sorghum or BMR Sorghum-Sudan to complete the ration needs of the heifers (lightly minimum till to break allelopathy). Sorghums can grow a very nice replacement animal at a relatively low cost compared to corn and fit well with late milk winter triticale silage.

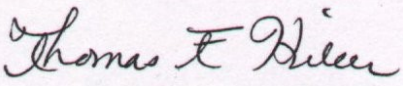
	Dry Matter	Crude Protein	NEL	IVTD 30	NDFD 30	kd%/hr	Simple Sugars
Late milk triticale	36	7	0.48	67	52	4	10
Red clover and late milk triticale	30	9	0.56	72	55	5	10

For Next Year

In my research we looked at growing winter triticale for deliberate late milk/soft dough harvest for heifers/dry cows by planting the triticale the end of August (for our Albany, NY climate zone) with red clover planted with it (September planted clover will fail). We do not suggest adding manure nitrogen or any fall nitrogen as this will cause the triticale to completely smother out the red clover. The next spring, some nitrogen is added to push the triticale (not manure, we want low potassium). Harvest needs to be when the red clover is at full bloom (triticale is at early milk stage) otherwise the clover will quickly die and pull down the triticale. Where we had tested (table above) this system our 35% dry matter yield by mid June was 21.35 tons of silage/acre (the following crop was sorghum.)

A far superior clover is mammoth red. This is an old clover that does not head out as soon as red clover but is normally a single cut crop. Yields in the single cut have been double that of red clover (see photo at right). It also matures later so you can go to early soft dough stage on the triticale and increase the energy levels



Sincerely,

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