Cornell Cooperative Extension

Central New York Dairy, Livestock and Field Crops

Field Crop Update – 22 September 2022

- 1. Fall Field Prep
- 2. Reminders from last week
- 3. Growing Degree Days

1. Fall Field Prep

a. Cover crops.

Yes, there is still time for cover crop seeding! Attached is a very comprehensive guide to cover crops used in the Northeast, while here is a Cornell factsheet outlining the Nitrogen benefits of winter cover crops: <u>http://nmsp.cals.cornell.edu/publications/factsheets/factsheet43.pdf</u> and here is a very useful guide from the Univ of Nebraska for cover cropping after corn and soy crops: <u>https://cropwatch.unl.edu/cover-crop-options-after-corn-or-soybean-harvest</u>. If you have more questions about cover cropping, please get in touch with me.

b. Hay harvest considerations

We're getting closer to the time when taking your last cutting of alfalfa will cause minimal risk of winter injury. Be sure to leave around 6" of stubble to trap snow and further reduce the risk of winter injury. A good time to take this final cut is after our first killing frost (<29F for at least 4 hrs). Here is a PRO-DAIRY article discussing fall alfalfa harvest: Late Summer Alfalfa Harvest.pdf (cornell.edu)

c. Weather outlook

Speaking of frost, **some of us in the valleys may see some frost Saturday morning** – the entire Central NY region is at risk (see map in section 3). If your corn or soybean crop is still a ways from maturity, here is some info outlining options for frost-damaged corn and soy: <u>PM1635_1.pdf (iastate.edu)</u>

2. Reminders from last week:

Reminder 1 – Free soybean cyst nematode screening:

With soybean harvest approaching, please be on the lookout for any parts of the field that look like the picture below. This field turned out to be infested with **soybean cyst nematode** (SCN), a microscopic soil-borne roundworm that can rob as much as 30% of your yield before plants show any symptoms. In this field, plants dried-down and defoliated prematurely, showing me exactly where to sample. This year we have **funding from the NY Corn and Soybean Growers Association to sample up to 75 soybean fields in NY** for this pest. Some growers have already heard from me regarding sampling their fields this year, but if you haven't and you would like me to sample one or more of your fields, *please contact me*.



Reminder 2 – The effect of rain on corn silage dry-down:

During our recent rainy weather, Cornell's silage trails showed some very interesting data. While a rain event lowered DM% for around a day, **dry-down was right back on-schedule very soon after**:

Date	85 day DM	93 day DM			
9/4	29%	27%			
9/5	rain				
9/6	27%	25%			
-					
-					
-					
9/10	32%	30%			

The stalks will take up the moisture from a rain event, but that effect is very short-lived. The ears are <u>not</u> taking up moisture in the same way and are continuing to dry down.

Check your silage crops' whole plant dry matter to make sure you're ready to harvest – your crop may be ready before you know it. See our recent emails regarding Corn Plant Dry Down and Kernel Processing. Here's a reminder from Joe Lawrence (PRO-DAIRY):

"The status of the corn crop is highly dependent on where you are in the state this year but in areas with drought stress (but not complete plant death from drought) it will be really important to watch kernel maturity in combination with whole plant dry matter. In these fields the plants look pretty ugly but the kernels continue to attempt to mature. You will see in the attached that the year and health of the plants makes a difference in how much ear DM contributes to whole plant DM vs. stover DM. For this droughty scenario this could look more like the data from 2019 where the plants are not healthy and therefore contribute slightly more to whole plant DM but ear DM is still driving the dry down process and patience is needed to allow this to happen: https://ecommons.cornell.edu/handle/1813/104222."

To assess the effectiveness of this year's nutrient plan, see this <u>factsheet</u> and this <u>factsheet</u> on the Corn Stalk Nitrate Test.

3. Growing Degree Days as of 21 Sept: See: Climate Smart Farming Growing Degree Day Calculator Growing degree days (GDD) are calculated by taking the average daily temperature and subtracting the base temperature for development of a given organism ((High + Low)/2 – base temp = GDD). For corn silage, we are using base 50/86, as corn development starts at 50 degrees F and ceases above 86. Check your location, planting date, and silking date. Silage corn needs 750-800 GDD (depending on hybrid maturity) after silking to reach a whole plant DM of 32%. Under typical late season dry down conditions we can expect the crop to reach 35% DM four to seven days later (Remember that we can expect to accumulate 20-25 GDD per day, or even up to 30, so this is not a large window). For more details, see this article. No matter what the numbers say, always check your crop to see how close you may be to harvest

Hybrid relative maturity	GDD from silking to reach ~32% DM				
101-110	800				
96-100	750				
<96	750 or slightly less (extrapolated)				

Time to make plans (35% DM anywhere between 5 – 11 days from now, depending on maturity)

Gas up the harvester and the trucks (35% DM in 2 – 8 days, depending on maturity)

See you in the field (35% now or in a few days):

It's either already in the bunk or it's going in the bin or for high-moisture corn (DM likely > 35-40%)

As of: 21 Sept 2022 (Base: 86/50)			Planting Date			Silking Date					
Location	Elevation (ft)	Latitude N	May 10	May 15	May 20	May 25	July 17	July 20	July 23	July 26	July 29
Poland	675	43.23	2137	2055	2014	1943	past	past	1035	974	919
Canastota	420	43.08	2495	2399	2351	2275	past	past	past	past	past
Saratoga Springs	365	43.08	2402	2308	2256	2182	past	past	past	past	1014
Frankfort	530	43.03	2380	2291	2243	2164	past	past	past	past	1020
Galway	749	43.02	2289	2200	2151	2082	past	past	past	1024	970
St Johnsville	650	43	2192	2110	2067	1992	past	past	past	973	919
Fenner	1480	42.97	2201	2115	2076	2011	past	past	past	1013	960
Fultonville	489	42.95	2321	2235	2187	2111	past	past	past	1033	976
Bouckville	1170	42.93	2166	2084	2044	1976	past	past	past	987	935
Richfield Springs	1580	42.85	2078	2001	1961	1888	past	past	999	936	884
Cherry Valley	758	42.81	2063	1990	1949	1877	past	past	991	927	876
Burlington	1959	42.72	1999	1924	1886	1821	past	past	979	918	870
Sherburne	1115	42.69	2239	2157	2112	2041	past	past	past	1018	965
Cobleskill	937	42.68	2255	2177	2129	2057	past	past	past	1026	969
Oneonta	1107	42.47	1960	1887	1848	1784	past	past	968	908	861
Oxford	1499	42.4	2094	2014	1971	1905	past	past	1026	961	909
Bainbridge	1000	42.3	2153	2071	2025	1956	past	past	past	995	943

