Cornell Cooperative Extension Central New York Dairy, Livestock and Field Crops

Serving Chenango, Fulton, Herkimer, Madison, Montgomery, Otsego, Saratoga and Schoharie Counties





Volume 9 Issue 6 Septembe

September 17, 2019

Kevin H. Ganoe, Field Crop Specialist 5657 State Route 5, Herkimer, NY 13350 Phone: 315-866-7920 Cell: 315-219-7786 khg2@cornell.edu

Last look at Growing Degree Days for corn silage

This is the last of Growing Degree Day (GDD) table for corn silage I will send out this year. This table contains dates for harvest that are unlikely to be achieved before a frost and have been included to make the point. After October 1 there are very limited GDDs available to improve maturity. If there is a positive it is that at many locations there have few frosts to none in the past 15 years in September. This is a trend that matches the fact that the fifteen year average for GDDs has been higher than the thirty year average so recent summers have trended warmer and later. That is not a guarantee against an early frost but tells which way weather has trended.

A last reminder to make sure you check dry matter content before you start chopping and don't start chopping until you have to. Don't mix corn silage containing kernels that have starch in them with corn that is immature with little or no kernel development. Maintain the quality that you can.

Table 1

Three planting scenarios and predicted harvest dates to achieve 30-35% DM based on GDDs, planting date and location. Data from September 16, 2019.

		Planting Date June 10		Planting Date June 1		Planting Date May 20	
		GDDs	Date to reach 1800 GDDs	GDDs	Date to reach 1950 GDDs	GDDs	Date to reach 2100 GDDs
		Season	approx 80 Day	Season	approx 90 Day	Season	approx 100
Location	Elevation	To Date	RM hybrid	To Date	RM Hybrid	To Date	Day RM Hybrid
Bainbridge	1000	1631	Oct-05	1736	Oct-10	1865	Oct-13
Bouckville	1170	1543	Oct-22	1645	Nov-14	1750	/
Canastota	420	1735	Sep-23	1860	Sep-25	1986	Sep-27
Cherry Valley	758	1644	Oct-02	1746	Oct-08	1856	Oct-13
Cobleskill	937	1563	Oct-15	1655	Nov-02	1761	Dec-01
Frankfort	530	1583	Oct-11	1683	Oct-21	1787	Nov-09
Fultonville	489	1819	Sep-16	1937	Sep-19	2066	Sep-20
Galway	749	1706	Sep-27	1815	Oct-01	1947	Oct-03
Oneonta	1107	1525	Oct-23	1626	Nov-13	1738	/
Richfield Springs	1580	1434	/	1517	/	1615	/
Saratoga Springs	365	1720	Sep-25	1825	Sep-29	1942	Oct-02
Sherburne	1115	1623	Oct-06	1732	Oct-10	1858	Oct-13
St Johnsville	650	1510	Nov-18	1601	/	1698	/

Continued...

Harvesting soybeans for forage

September 5, 2019 - Author: Michael Staton, Kim Cassida and Philip Kaatz Michigan State University Extension

Kevin's Note: I have included this article on soybeans for forage because there may be soybean acres out there that won't make grain but might make acceptable forage. Note the comments on oil content.

Some producers may be considering harvesting soybeans for forage this year on their prevented planting acres that were planted as a cover crop. Soybean were originally used as a forage crop in the U.S. and if harvested and handled properly, it produces high quality forage.

Value of soybean forage

The feed value of properly harvested and handled soybean forage can be approximately equivalent to alfalfa. As with any other forage, submitting a representative sample to a qualified laboratory for feed quality analysis is the best way to understand the feed value.



Photo by Mike Staton, MSU Extension

Impacts on crop insurance

The key message here is communicate closely with your crop insurance agent before harvesting a field for forage that was originally intended for grain production or as a delayed planting cover crop. Failure to communicate with your agent prior to harvest may result in misunderstandings that results in a loss of indemnity payments.

USDA program eligibility

Contact your local U.S. Department of Agriculture (USDA) Farm Service Agency office to determine how harvesting a field for forage that was originally intended for grain production will affect USDA program eligibility.

Pesticide feeding restrictions

Producers must check the labels of all the pesticides (including seed treatments) that were applied to the soybean crop to ensure that harvesting for forage is an option and to learn the pre-harvest interval for each product.

Harvesting for hay

Harvesting soybean forage for silage is preferred over baling as dry hay as more dry matter is retained during harvest and storage. However, it is possible to make high quality hay from soybeans in the R3 to R5 growth stages. There are many leaves at these stages and the pods are less likely to shatter during mowing and raking operations.

Use a roller-type mower conditioner set to lay the hay in a wide swath and leave about 4 inches of stubble. When dry, slowly and gently rake the swath into a windrow in the morning when humidity levels are higher to avoid leaf loss. Invert the windrows after several hours of good drying conditions and bale in the early evening to avoid further leaf loss.

Harvesting for silage

The crop can be harvested from R3 to R6. Soybeans harvested at R3 to R5 will produce high quality forage and have lower oil content than those harvested at R6. The higher oil content may cause fermentation problems. However, soybeans harvested at R6 will produce more dry matter.

Mow the crop with a mower conditioner equipped with roller crimpers. Experience from Wisconsin indicated that flail conditioners cause more damage and dry matter loss than roller conditioners. As with alfalfa, soybean should be allowed to wilt in the field to 65% moisture before chopping. Determining the whole plant moisture content is critical to achieving proper fermentation.

Collect representative samples from the chopper and use the microwave method to determine whole plant moisture levels before chopping each field. Adjust the chopper to produce a 3/8-inch cut to improve packing.

Feeding soybean hay

Soybean hay tends to cause bloat in cattle, so it should be fed carefully. Mix the soybean hay with grass hay or fill the cattle up on grass hay prior to feeding soybean hay. Horses can safely consume soybean hay if it is baled and stored properly.

Feeding soybean silage

Feed quality of soybean silage is equivalent to alfalfa haylage. Soybean silage is less palatable than haylage or corn silage. However, it can make up 15 to 20% of a dairy ration without impeding animal intake or milk production. The exception is when the soybeans are harvested after the R6 stage as more seed (higher oil content) is present which can reduce both fermentation and palatability.

When harvested and handled properly, soybeans can produce excellent forage.

References

D. Undersander, K. Jarek, T. Anderson, N. Schneider and L. Milligan. "A Guide to Making Soybean Silage", Plant Management Network, 2007.

S. Johnson, J. Dunphy and M. Poore. "Soybeans as Forage for Grazing, Hay or Silage", North Carolina State University.

S. Barnhart and A. Lenssen. "Alternatives for Drought-Damaged Soybeans- Bean Crop of Forage", Iowa State University, Integrated Crop Management News, 2012.