1st Cutting Forage Quality Update Cornell Cooperative Extension Central New York Dairy, Livestock and Field Crops

This is our fourth week of monitoring 1st cutting for quality in 2019. If you are not familiar with our procedures we use alfalfa height to predict Neutral Detergent Fiber (NDF) for alfalfa, alfalfa/grass mixed and grass stands. Alfalfa height has proven to be a reliable indicator of NDF values in the field.

Here are numbers that are helpful when using alfalfa and grass height as an indicator of NDF content. In general:

Begin cutting 100% grass stands should be cut when nearby alfalfa is 14 inches tall to achieve the desired 50% NDF. Begin cutting 50/50 mixed alfalfa and grass stands when nearby alfalfa is 22 inches tall for the desired 44% NDF. Begin cutting 100% alfalfa stands when alfalfa is 28 inches tall for the desired 40% NDF.

The desired NDF for all grass fields is 50%, 50/50 mixed alfalfa and grass fields is 44%, and pure alfalfa stands is 40%. Predicted days to cut are based on daily NDF increases for grasses of 1% point, 50/50 mixed stands of .8% points and alfalfa of .5% point. Typically, NDF increases about 0.8 to 1.2/day for grasses expecting the lower end of that range in cooler weather and the higher end in warm. Alfalfa NDF increases about 0.4 to 0.7/day again figuring the lower end of that range with cool temperatures and the higher in warm. Predictions are adjusted for the coming week's weather and right now we are assuming normal growth.

In the attached tables locations around the region are listed where we have measured alfalfa height. You can use the location and elevation as a guide to conditions that may be similar to your own. Always check your fields to verify your heights and conditions!

On average the alfalfa height increase was greater this week with an average height of 21 inches, an increase of 6 inches. We picked up some additional Growing Degree Days (GDDs) over the previous week so alfalfa was growing quickly.

At all locations 100 percent grass stands should be cut by now even at the highest elevations. On the other hand, note how high the %NDF is at some locations for pure grass stands. For making dairy quality feed 55% NDF should be given consideration as a cutoff point for all grass. Although we often push to harvest grass stands first to achieve high quality, fifty-five percent of the locations are already below dairy quality for all grass. Take the fields first that: 1) you can get on to and 2) have the highest quality which is likely to be alfalfa grass mixes and mostly alfalfa fields. By our next measurements on May 28 we would expect ninety percent of the locations the 50/50 mix stands will be ready for harvest and forty percent of the all alfalfa stands will be ready.

Summary of Alfalfa Height and Prediction of % NDF – May 21, 2019

| County | Town | Road Name | Elevation | Alfalfa Height Inches | Predicted Grass % NDF | Predicted 50/50 Mix % NDF | Predicted Alfalfa % NDF | Predicted Date to Cut Grass | Predicted Date to Cut Mix | Predicted Date to Cut Alfalfa |
|----------|---------------|----------------------|-----------|-----------------------------|-----------------------------|---------------------------------|-------------------------------|-----------------------------------|---------------------------------|-------------------------------------|
| Chenango | Afton | State Route 41 | 1060 | 23 | 56.9 | 44.0 | 34.6 | 5/14/19 | 5/20/19 | 5/27/19 |
| Chenango | Bainbridge | East Keech Road | 1000 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Chenango | Bainbridge | Ives Settlement Road | 1650 | 15 | 50.0 | 37.1 | 29.0 | 5/21/19 | 5/29/19 | 6/8/19 |
| Chenango | Greene | County Road 32 | 950 | 26 | 59.5 | 46.6 | 36.7 | 5/11/19 | 5/17/19 | 5/23/19 |
| Chenango | New Berlin | State Route 8 | 1060 | 25 | 58.6 | 45.8 | 36.0 | 5/12/19 | 5/18/19 | 5/25/19 |
| Chenango | Sherburne | County Road 24 | 1350 | 16 | 50.8 | 38.0 | 29.7 | 5/20/19 | 5/28/19 | 6/6/19 |
| Chenango | Sherburne | State Route 80 | 1190 | 22 | 56.0 | 43.2 | 33.9 | 5/14/19 | 5/22/19 | 5/29/19 |
| Chenango | Smyrna | County Road 20 | 1190 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Fulton | Ephratah | County Road 140 | 633 | 15 | 50.0 | 37.1 | 29.0 | 5/21/19 | 5/29/19 | 6/8/19 |
| Fulton | Johnstown | State Route 67 | 765 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Herkimer | Columbia | McKoons Road | 1493 | 14 | 49.1 | 36.3 | 28.3 | 5/21/19 | 5/30/19 | 6/9/19 |
| Herkimer | Danube | State Route 5S | 437 | 27 | 60.3 | 47.5 | 37.4 | 5/10/19 | 5/16/19 | 5/22/19 |
| Herkimer | Danube | Travis Road | 1484 | 16 | 50.8 | 38.0 | 29.7 | 5/20/19 | 5/28/19 | 6/6/19 |
| Herkimer | Fairfield | Hardscrabble Road | 740 | 19 | 53.4 | 40.6 | 31.8 | 5/17/19 | 5/25/19 | 6/2/19 |
| Herkimer | German Flatts | Kiddney Road | 405 | Cut | | | | | | |
| Herkimer | German Flatts | State Route 5S | 389 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Herkimer | Stark | Jordanville Road | 1420 | 19 | 53.4 | 40.6 | 31.8 | 5/17/19 | 5/25/19 | 6/2/19 |
| Herkimer | Warren | Jordanville Road | 1582 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Herkimer | Winfield | Babcock Hill Road | 1332 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Herkimer | Winfield | State Route 51 | 1195 | 16 | 50.8 | 38.0 | 29.7 | 5/20/19 | 5/28/19 | 6/6/19 |
| Herkimer | Winfield | Walts Road | 1426 | 19 | 53.4 | 40.6 | 31.8 | 5/17/19 | 5/25/19 | 6/2/19 |
| Madison | Fenner | Nelson Road | 1453 | 19 | 53.4 | 40.6 | 31.8 | 5/17/19 | 5/25/19 | 6/2/19 |
| Madison | Georgetown | State Route 26 | 1391 | 23 | 56.4 | 43.6 | 34.3 | 5/14/19 | 5/21/19 | 5/28/19 |

Summary of Alfalfa Height and Prediction of % NDF – May 21, 2019

| County | Town | Road Name | Elevation | Alfalfa Height Inches | Predicted Grass % NDF | Predicted 50/50 Mix % NDF | Predicted Alfalfa % NDF | Predicted Date to Cut Grass | Predicted Date to Cut Mix | Predicted Date to Cut Alfalfa |
|------------|----------------|------------------------|-----------|-----------------------------|-----------------------------|---------------------------------|-------------------------------|-----------------------------------|---------------------------------|-------------------------------------|
| Madison | Lebanon | Geer Road | 1508 | 16 | 50.4 | 37.5 | 29.4 | 5/20/19 | 5/29/19 | 6/7/19 |
| Madison | Lincoln | Creek Road | 666 | 28 | 61.2 | 48.3 | 38.1 | 5/9/19 | 5/15/19 | 5/20/19 |
| Madison | Oneida | Middle Road | 500 | 28 | 61.2 | 48.3 | 38.1 | 5/9/19 | 5/15/19 | 5/20/19 |
| Madison | Smithfield | Swamp Road | 1286 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Madison | Stockbridge | Stockbridge Falls Road | 1099 | 22 | 56.0 | 43.2 | 33.9 | 5/14/19 | 5/22/19 | 5/29/19 |
| Montgomery | Amsterdam | Truax Road | 650 | 20 | 54.3 | 41.4 | 32.5 | 5/16/19 | 5/24/19 | 6/1/19 |
| Montgomery | Canajoharie | Maring Road | 869 | 20 | 54.3 | 41.4 | 32.5 | 5/16/19 | 5/24/19 | 6/1/19 |
| Montgomery | Florida | Cemetery Street | 550 | 23 | 56.9 | 44.0 | 34.6 | 5/14/19 | 5/20/19 | 5/27/19 |
| Montgomery | Florida | Mohr Road | 820 | 21 | 55.1 | 42.3 | 33.2 | 5/15/19 | 5/23/19 | 5/30/19 |
| Montgomery | Glen | State Route 5S | 290 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Montgomery | Minden | Airport Road | 653 | 13 | 48.2 | 35.4 | 27.6 | 5/22/19 | 5/31/19 | 6/10/19 |
| Montgomery | Minden | River Road | 417 | 23 | 56.9 | 44.0 | 34.6 | 5/14/19 | 5/20/19 | 5/27/19 |
| Montgomery | Minden | State Route 80 | 610 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Montgomery | Mohawk | Stoners Trail Road | 570 | 20 | 54.3 | 41.4 | 32.5 | 5/16/19 | 5/24/19 | 6/1/19 |
| Montgomery | Mohawk | Van Epps Road | 470 | 22 | 56.0 | 43.2 | 33.9 | 5/14/19 | 5/22/19 | 5/29/19 |
| Montgomery | St. Johnsville | Crum Creek Road | 668 | 23 | 56.9 | 44.0 | 34.6 | 5/14/19 | 5/20/19 | 5/27/19 |
| Otsego | Cherry Valley | Dugway Road | 796 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Otsego | Cherry Valley | State Route 166 | 1295 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Otsego | Garratsville | County Road 51 | 1304 | 18 | 52.6 | 39.7 | 31.1 | 5/18/19 | 5/26/19 | 6/3/19 |
| Otsego | Laurens | State Route 205 | 1121 | 17 | 51.7 | 38.8 | 30.4 | 5/19/19 | 5/27/19 | 6/5/19 |
| Otsego | Middlefield | County Road 33 | 1241 | 21 | 55.1 | 42.3 | 33.2 | 5/15/19 | 5/23/19 | 5/30/19 |
| Otsego | Middlefield | State Route 166 | 1256 | 22 | 56.0 | 43.2 | 33.9 | 5/14/19 | 5/22/19 | 5/29/19 |
| Otsego | Milford | State Route 28 | 1208 | 25 | 58.6 | 45.8 | 36.0 | 5/12/19 | 5/18/19 | 5/25/19 |

Summary of Alfalfa Height and Prediction of % NDF – May 21, 2019

| County | Town | Road Name | Elevation | Alfalfa Height Inches | Predicted Grass % NDF | Predicted 50/50 Mix % NDF | Predicted Alfalfa % NDF | Predicted Date to Cut Grass | Predicted Date to Cut Mix | Predicted Date to Cut Alfalfa |
|-----------|----------------|--------------------|-----------|-----------------------------|-----------------------------|---------------------------------|-------------------------------|-----------------------------------|---------------------------------|-------------------------------------|
| Otsego | Morris | County Road 10 | 1149 | 20 | 54.3 | 41.4 | 32.5 | 5/16/19 | 5/24/19 | 6/1/19 |
| Otsego | Pittsfield | County Road 18 | 1137 | 25 | 58.6 | 45.8 | 36.0 | 5/12/19 | 5/18/19 | 5/25/19 |
| Otsego | Richfield | Dugan Road | 1559 | 17 | 51.7 | 38.8 | 30.4 | 5/19/19 | 5/27/19 | 6/5/19 |
| Otsego | Schenevus | Muehl Road | 1319 | 21 | 55.1 | 42.3 | 33.2 | 5/15/19 | 5/23/19 | 5/30/19 |
| Otsego | Unadilla | State Route 41 | 1058 | 25 | 58.6 | 45.8 | 36.0 | 5/12/19 | 5/18/19 | 5/25/19 |
| Saratoga | Charlton | Jockey Street | 620 | 22 | 56.0 | 43.2 | 33.9 | 5/14/19 | 5/22/19 | 5/29/19 |
| Saratoga | Galway | Crane Road | 840 | 20 | 54.3 | 41.4 | 32.5 | 5/16/19 | 5/24/19 | 6/1/19 |
| Saratoga | Northumberland | Callahan Road | 280 | 25 | 58.6 | 45.8 | 36.0 | 5/12/19 | 5/18/19 | 5/25/19 |
| Saratoga | Northumberland | Colebrook Road | 250 | 25 | 58.6 | 45.8 | 36.0 | 5/12/19 | 5/18/19 | 5/25/19 |
| Saratoga | Saratoga | County Road 68 | 440 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Saratoga | Saratoga | County Road 71 | 440 | 26 | 59.5 | 46.6 | 36.7 | 5/11/19 | 5/17/19 | 5/23/19 |
| Saratoga | Stillwater | State Route 423 | 480 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Schoharie | Cobleskill | Lake Road | 1297 | 19 | 53.4 | 40.6 | 31.8 | 5/17/19 | 5/25/19 | 6/2/19 |
| Schoharie | Cobleskill | Warnerville Cutoff | 944 | 24 | 57.7 | 44.9 | 35.3 | 5/13/19 | 5/19/19 | 5/26/19 |
| Schoharie | Fulton | State Route 30 | 702 | 27 | 60.3 | 47.5 | 37.4 | 5/10/19 | 5/16/19 | 5/22/19 |
| Schoharie | Middleburgh | Amelia Lane | 626 | 27 | 60.3 | 47.5 | 37.4 | 5/10/19 | 5/16/19 | 5/22/19 |
| Schoharie | Wright | Abrams Road | 1149 | 22 | 56.0 | 43.2 | 33.9 | 5/14/19 | 5/22/19 | 5/29/19 |