Cornell University Cooperative Extension Central New York Dairy & Field Crops Team

1st Cutting Forage Quality Update

This is our third week of monitoring of 1st cutting quality for 2017. 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 we say 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.

For May 16 alfalfa gained 4 inches over the past week, now averaging 20 inches tall over all sites. Twenty one or 40% of the fields were 22 inches or taller indicating mixed stands should be cut at those sites. Three fields were 27-28 inches tall which means pure alfalfa stands at those sites should be cut within the next day or two. Of all sites two fields have been cut yet one field at 9 inches still isn't tall enough to register for the prediction equations to kick in. Elevation has the largest effect on alfalfa height as 68% percent (R²=.677) of the alfalfa height variation was due to changes in elevation. A 500 foot increase in elevation meant a 4.4 inch decrease in alfalfa height.

Most of our fields (90%) are past for all grass harvest and in some instances should not be cut for dairy quality feed as they are past prime. Check your fields so you know the stage of your haycrop. Next report will be May 23.

First Cutting Project is being conducted by Cornell Cooperative Extension of Chenango, Fulton, Herkimer, Montgomery, Otsego, Saratoga and Schoharie Counties and the Central New York Dairy and Field Crops Team

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	Bainbridge	Ives Settlement Road	1457	15	50.0	37.1	29.0	5/16/17	5/24/17	6/3/17
Chenango	Greene	County Road 32	950	22	56.0	43.2	33.9	5/9/17	5/17/17	5/24/17
Chenango	Sherburne	County Road 24	1350	13	48.2	35.4	27.6	5/17/17	5/26/17	6/5/17
Chenango	Sherburne	State Route 80	1190	18	52.6	39.7	31.1	5/13/17	5/21/17	5/29/17
Chenango	Smyrna	County Road 14	1080	19	53.4	40.6	31.8	5/12/17	5/20/17	5/28/17
Chenango	Smyrna	County Road 20	1150	20	54.3	41.4	32.5	5/11/17	5/19/17	5/27/17
Fulton	Ephratah	County Road 140	633	24	57.7	44.9	35.3	5/8/17	5/14/17	5/21/17
Fulton	Johnstown	State Route 67	765	22	56.0	43.2	33.9	5/9/17	5/17/17	5/24/17
Herkimer	Colombia	Osley Road	1510	15	50.0	37.1	29.0	5/16/17	5/24/17	6/3/17
Herkimer	Danube	Bellinger Road	692	Cut						
Herkimer	Danube	Tibbits Road	580	21	55.1	42.3	33.2	5/10/17	5/18/17	5/25/17
Herkimer	Danube	Travis Road	1301	9	Too Early	Too Early	Too Early	Too Early	Too Early	Too Early
Herkimer	Fairfield	Hardscrabble Road	1308	Cut						
Herkimer	German Flatts	Kiddney Road	389	22	56.0	43.2	33.9	5/9/17	5/17/17	5/24/17
Herkimer	Mohawk	Kingdom Road	1598	12	47.4	34.5	26.9	5/18/17	5/27/17	6/7/17
Herkimer	Mohawk	Manning Road.	1638	13	48.2	35.4	27.6	5/17/17	5/26/17	6/5/17
Herkimer	Norway	State Route 170A	1207	14	49.1	36.3	28.3	5/16/17	5/25/17	6/4/17
Herkimer	Schulyer	Carder Lane	466	24	57.7	44.9	35.3	5/8/17	5/14/17	5/21/17
Herkimer	Stark	Jordanville Road	1420	13	48.2	35.4	27.6	5/17/17	5/26/17	6/5/17
Herkimer	Warren	Jordanville Road	1546	15	50.0	37.1	29.0	5/16/17	5/24/17	6/3/17
Herkimer	Warren	Jordanville Road	1555	14	49.1	36.3	28.3	5/16/17	5/25/17	6/4/17
Montgomery	Canajoharie	Maring Road	890	23	56.9	44.0	34.6	5/9/17	5/15/17	5/22/17
Montgomery	Florida	Cemetery Road	580	19	53.4	40.6	31.8	5/12/17	5/20/17	5/28/17

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Montgomery	Florida	Mohr Road	830	20	54.3	41.4	32.5	5/11/17	5/19/17	5/27/17
Montgomery	Glen	State Route 5S	290	23	56.9	44.0	34.6	5/9/17	5/15/17	5/22/17
Montgomery	Minden	Airport Road	653	21	55.1	42.3	33.2	5/10/17	5/18/17	5/25/17
Montgomery	Minden	River Road	417	24	57.7	44.9	35.3	5/8/17	5/14/17	5/21/17
Montgomery	Minden	State Route 80	610	24	57.7	44.9	35.3	5/8/17	5/14/17	5/21/17
Montgomery	Mohawk	Stoners Trail Road	570	22	56.0	43.2	33.9	5/9/17	5/17/17	5/24/17
Montgomery	Mohawk	Van Epps Road	470	20	54.3	41.4	32.5	5/11/17	5/19/17	5/27/17
Montgomery	Palatine	Dygert Road	584	21	55.1	42.3	33.2	5/10/17	5/18/17	5/25/17
Montgomery	St. Johnsville	Crum Creek Road	668	21	55.1	42.3	33.2	5/10/17	5/18/17	5/25/17
Otsego	Cherry Valley	Dugway Road	796	24	57.7	44.9	35.3	5/8/17	5/14/17	5/21/17
Otsego	Maryland	Muehl Road	1320	18	52.6	39.7	31.1	5/13/17	5/21/17	5/29/17
Otsego	Morris	State Route 51	1126	16	50.8	38.0	29.7	5/15/17	5/23/17	6/1/17
Otsego	New Lisbon	State Route 51	1255	19	53.4	40.6	31.8	5/12/17	5/20/17	5/28/17
Otsego	Otego	State Route 7	1070	21	55.1	42.3	33.2	5/10/17	5/18/17	5/25/17
Otsego	Otsego	County Road 33	1238	19	53.4	40.6	31.8	5/12/17	5/20/17	5/28/17
Otsego	Pittsfield	Burdick Rd	1136	20	54.3	41.4	32.5	5/11/17	5/19/17	5/27/17
Otsego	Plainfield	County Road 18	1212	18	52.6	39.7	31.1	5/13/17	5/21/17	5/29/17
Otsego	Springfield	Briar Hill Road	1638	14	49.1	36.3	28.3	5/16/17	5/25/17	6/4/17
Otsego	Unadilla	County Road 1	1058	21	55.1	42.3	33.2	5/10/17	5/18/17	5/25/17
Saratoga	Charlton	Jockey Street	643	24	57.7	44.9	35.3	5/8/17	5/14/17	5/21/17
Saratoga	Galway	Crane Road	833	18	52.6	39.7	31.1	5/13/17	5/21/17	5/29/17
Saratoga	Northumberland	Callahan Road	282	25	58.6	45.8	36.0	5/7/17	5/13/17	5/20/17
Saratoga	Northumberland	State Route 32	268	27	60.3	47.5	37.4	5/5/17	5/11/17	5/17/17

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Summary of Alfalfa Height and Prediction of % NDF - May 16, 2017

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
Saratoga	Saratoga	County Road 67	362	23	56.9	44.0	34.6	5/9/17	5/15/17	5/22/17
Saratoga	Saratoga	Southard Road	320	27	60.3	47.5	37.4	5/5/17	5/11/17	5/17/17
Saratoga	Stillwater	State Route 423	475	23	56.9	44.0	34.6	5/9/17	5/15/17	5/22/17
Schoharie	Middleburgh	State Route 30	610	25	58.6	45.8	36.0	5/7/17	5/13/17	5/20/17
Schoharie	Middleburgh	State Route 30	635	28	61.2	48.3	38.1	5/4/17	5/10/17	5/15/17
Schoharie	Richmondville	Warnerville Cutoff	925	25	58.6	45.8	36.0	5/7/17	5/13/17	5/20/17
Schoharie	Seward	Bush Street	1150	15	50.0	37.1	29.0	5/16/17	5/24/17	6/3/17
Schoharie	Wright	Abram's Road	1050	23	56.9	44.0	34.6	5/9/17	5/15/17	5/22/17