Northern New York
Agricultural Development Program

FACT SHEET

Evaluation of Corn Silage Hybrids for NNY for 2007

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The Importance of Hybrid Selection

Dairy, and beef, producers need to make informed decisions before selecting corn silage hybrids to plant for the coming year.

Across Northern New York (Essex, Clinton, Franklin, St. Lawrence, Lewis & Jefferson counties), corn for silage is grown on 103,186 acres. *(2002 Census)*

The results of Northern New York Agricultural Development Program corn silage hybrid trials help farmers evaluate which hybrids will return the highest quality and best yield for their farm and their herd.

Researchers in Idaho found that high quality corn silage produced $315 more beef per acre than low quality silage.

Introduction:
Why Run Field Trials for Corn Silage Hybrids

Hybrid selection is one of the most important management practices that affects corn silage yield and quality. Having actual silage yield and quality data obtained from testing hybrids in the region helps farmers make vital decisions.

With funding from the Northern New York Agricultural Development Program, researchers from Cornell University annually run field trials in Northern New York to test different corn silage hybrids. The results help farmers in the region evaluate which hybrids will return the highest quality and best yield for their farm and their herd. Combined with good management, proper harvesting, storage and feeding, planting a well-chosen corn silage hybrid will result in a crop that helps produce desired milk and beef yields.

Methods:

Cornell University evaluates 75-100 day corn silage hybrids at two locations in Northern New York. We arrange the hybrids in the field into 5-day relative maturity (RM) groups (i.e. 75-85, 86-90 day hybrids, etc.) and harvest one or more RM groups at a particular site when the hybrids are in the 60-70% moisture range. We also take a 2000-gram sample at harvest to determine moisture and to run silage quality analyses on all four replications of each hybrid at each site.

MILK2006, the updated MILK2000 spreadsheet from the University of Wisconsin, calculates milk/ton, a silage quality index, derived from neutral detergent fiber (NDF), NDF digestibility, crude protein, ash, and starch concentrations in the quality analyses. MILK2006 also calculates milk yield/acre of each hybrid by combining silage yield and milk/ton values.

We recommend hybrids that have comparative milk yields of greater than 100 (the average milk yield of each hybrid RM group is adjusted to 100 and hybrids within the RM group with above-average milk yields have values above 100).

We have listed the comparative milk yields as well as comparative silage yields and milk/ton values for hybrids that have performed above-average in our trials (Table 1).

Hybrids should only be compared within RM groups. Hybrids that have been tested more than one year should be given more weight because they have performed above-average in more environments.

Northern New York Results:

The 75-day hybrid HL S011 had excellent yield and the 80-day hybrid HL SR21 from Hyland had excellent milk/ton values in the 75-85 day RM group in 2006 (Table 1). The 85-day hybrid 377BWR from Doebler's yielded the highest in the 75-85-day RM group in 2006.

A new hybrid release, TMF2L412 from Mycogen, had exceptional milk yields in the 86-90-day RM group in 2006 (Table 1). Hybrids HT7220 BT/RR2 from Hytest and HL S034 from Hyland continued to have high milk yields in the 86-90 day RM group for the fourth and fifth consecutive years, respectively. Also, N29-A2, from Northrup King had exceptionally high milk/ton values in 2006 for the second consecutive year in the 86-90 day RM group. A new NK release, N31-P2, had high milk yields did in 2006 and 8922YG1/RR from Garst.

Some new hybrid releases as well as older hybrids had exceptional milk yields in the 91-95 day RM group in 2006 (Table 1). The new hybrids, 946LRR from LICA, 468RB from Doebler's, and N39-Q1 from NK, had very high milk yields in 2006. The hybrids TNT-92CRW/RR2 from Hytest, and 4453XRR from FS Seeds had exceptional milk yields for the second consecutive year in 2006. New hybrid releases, 5434RR from Chemgro and TA450-11 from T.A. Seeds, also had high milk yields in the 91-95 day RM group in 2006.

The new hybrid releases, 964L from LICA and 7435BT/RR2 from Hytest, had high milk yields in the 96-100 day RM group in Northern New York in 2006. Both hybrids had above-average yields and 964L also had above-average milk/ton values.

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Participating Farms: St. Lawrence County: Greenwood Farms, Canton; Clinton County: W.H. Miner Institute, Chazy (Data for trials on Central New York farms is available in the November-December '06 issue of What's Cropping Up? published by the Cornell University Department of Crop & Soil Sciences.

Participating Educators and Research Institute Representatives:
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Table 1. Recommended 75-100 day corn silage hybrids in Northern New York based on tests in St. Lawrence Co. (Greenwood Farms) and Clinton Co. (Miner Institute) in 2006.

Brand	Hybrid	Comparative Silage Yield	Comparative Milk/Ton	Comparative Milk Yield	Years in Test
		%	%	%	
		75-85 day Relative Maturity			
Doebler's	377BWR	106	100	106	1
Hyland	HL S011	105	99	103	4
Hyland	HL SR21	98	103	101	1
		86-90 day Relative Maturity			
Mycogen	TMF2L412	110	101	111	1
Hytest	HT7220BT/RR2	109	100	109	4
Hyland	HL S034	107	100	106	5
NK	N29-A2	100	104	104	2
NK	N31-P2	104	99	102	1
Garst	8922YG1/RR	99	102	101	2
		91-95 day Relative Maturity			
LICA	946LRR	109	102	111	1
Doebler's	468RB	112	98	110	1
NK	N39-Q1	108	100	107	1
Hytest	TNT-92CRW/RR2	102	103	105	2
FS Seeds	4453XRR	106	99	104	2
Chemgro	5434RR	105	100	104	1
NK	N33-H6	106	98	103	4
TA Seeds	TA450-11	102	100	102	1
		96-100 day Relative Maturity			
LICA	964L	104	101	104	1
Hytest	7435BT/RR2	101	100	101	1

For more information on Cornell's corn hybrid trials, contact: your local Cornell Cooperative Extension office: Clinton-Essex: 518-962-4810; Franklin: 518-483-7403; Jefferson: 315-788-8450; Lewis: 315-376-5270; St. Lawrence: 315-379-9192; or Bill Cox, Department of Crop and Soil Sciences, Cornell University, wjc3@cornell.edu, 607-255-1758.

The Northern New York Agricultural Development Program selects and prioritizes research the results of which can be practically applied to farms in the six-county region of Northern NY: Jefferson, Lewis, St. Lawrence, Franklin, Clinton and Essex counties.

To learn more about the Northern New York Agricultural Development Program, contact Co-Chairs Jon Greenwood, 315-386-3231, or Joe Giroux, 518-563-7523; or R. David Smith, Cornell University, 607-255-7286. or visit www.nnyagdev.org on the web. ◆

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