Northern New York
Agricultural Development Program

FACT SHEET

Evaluation of Corn Silage Hybrids for NNY for 2005

Principal Investigators: William J. Cox, Department of Crop and Soil Sciences, Cornell University; Jerome Cherney, Department of Crop & Soil Sciences, Cornell University, and Margaret Smith Einarson, Department of Plant Breeding & Genetics, Cornell University

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.

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.

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. Across Northern New York - in Essex, Clinton, Franklin, St. Lawrence, Lewis and Jefferson counties, corn for silage is grown on 103,186 acres.*

Dairy, and beef, producers need to make informed management decisions before selecting hybrids to plant for the coming year. Having actual silage yield and quality data obtained from testing hybrids in the region helps farmers make those 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.

Cornell University researchers applied MILK2000 standards to determine milk/ton and milk yield/acre for the hybrids tested in Northern New York. Researchers in Idaho found that high quality corn silage produced $315 more beef per acre than low quality silage.

Informed selection of hybrids is the first step toward a success crop. 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.

** 2002 Census of Agriculture data*

The MILK2000 spreadsheet created by the University of Wisconsin was used to calculate milk/ton as a silage quality index.

That calculation is derived from analyses of neutral detergent fiber (NDF), NDF digestibility, crude protein, ash, and starch concentrations.

MILK2000 also calculates milk yield/ acre by combining silage yield and milk/ton values.

To learn more about corn hybrids, contact the Cornell Cooperative Extension office for your county:

- **Clinton-Essex** •
  Anita Deming
  518-962-4810
- **Franklin** •
  Mat Cooper
  518-483-7403
- **Jefferson** •
  Mike Hunter
  315-788-8450
- **Lewis** •
  Jen Beckman
  315-376-5270
- **St. Lawrence** •
  Peter Barney
  315-379-9192

Methods:

This fact sheet provides data from the 2004 field trial evaluations for 75-100 day corn silage hybrids grown at three locations in Northern New York. Four replications of each hybrid at the three test sites allowed for testing under different weather conditions to evaluate consistency for each hybrid.

Researchers evaluated four relative maturity (RM) groups: 75-80 day RM, 85-90 day RM, 91-95 day RM, and 96-100 day RM. Corn was harvested when the hybrids were close to 65% moisture. Samples of all four replications of each hybrid are taken for silage quality analysis.

Results

The comparative milk yields, comparative silage yields, and milk/ton values for hybrids that performed above-average in Northern New York trials are shown in Table 1. Cornell researchers suggest planting hybrids with comparative milk yields at 100 or greater - 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. Fourteen of the hybrids scored between 100 and 110, two scored 112-113, and one scored 124 (*Table 1*).

For silage yield, 13 of the hybrids were rated from 100 to 113, two scored from 111-120, and one new 95-day hybrid had an exceptional yield score of 124. For milk per ton scores, the 17 hybrids scored between 97 and 104.

Note: hybrids that have been tested more than one year should be given more weight because they have performed above-average in more tests. Hybrids supplied by eight seed companies are currently in replication in Northern New York.

Principal Investigators:

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Participating Farms:

Canton: Greenwood Dairy; Chazy: W.H. Miner Institute; Sackets Harbor: Robbins Farms

Participating Educators and Research Institute Representatives:

Jefferson County: Mike Hunter, 315-788-8450; Lewis County: Jennifer Beckman. 315-376-5270; St. Lawrence County: Peter Barney, 315-379-9192; William H. Miner Institute: Everett Thomas, 518-846-7121; Willsboro Research Farm: Michael Davis, 518-963-7492

Table 1. Recommended 75-100 day corn silage hybrids in Northern New York based on tests in Jefferson and St. Lawrence counties.
(Reprinted from What's Cropping Up? Vol 14, No. 6, Nov-Dec 2004)

Brand	Hybrid	Comparative Silage Yield	Comparative Milk/Ton	Comparative Milk Yield	Years in Test
		%	%	%	
75-80 day Relative Maturity					
Hytest	HT7060BT/RR2	105	104	108	1
Hyland	HLS011	107	99	105	2
Hyland	HLS014	102	100	102	3
Hyland	HLS009	100	101	100	2
85-90 day Relative Maturity					
Hytest	H17220BT/RR2	109	101	109	2
Hyland	HLS034	108	99	106	3
Hytest	TNT-85RR	105	102	106	2
Garst	8865	103	99	101	2
DeKalb	DKC40-05	101	101	101	1
91-95 day Relative Maturity					
Mycogen	TMF2M405	124	100	124	1
Mycogen	2D421	111	101	112	1
NK	N33-H6	109	97	105	2
Doebler	317SL	104	101	105	1
DeKalb	DKC42-95(RR/YGCB)	100	103	102	2
NK	N3030BT	101	102	101	5
T.A. Seeds	TA4010F	101	101	101	2
96-100 day Relative Maturity					
Garst	8787YG1	112	101	113	1

For more information on Cornell's corn hybrid trials, contact: your local Cornell Cooperative Extension office; 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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