



# Northern New York Agricultural Development Program FACT SHEET

## **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.**

## **Evaluation of Corn Silage Hybrids for NNY for 2006**

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

### **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 (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 2005 field trial evaluations for 75-100 day corn silage hybrids grown at two locations in Northern New York: Greenwood Dairy, Canton, and W.H. Miner Agricultural Research Institute, Chazy.

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 in the 60 to 70% moisture range. A 2000-gram sample at harvest is evaluated for moisture and silage quality on all four replications of each hybrid at each trial site.

## **Results**

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.

The comparative milk yields, comparative silage yields, and milk/ton values for the 19 hybrids that performed above-average in Northern New York trials are shown in Table 1.

### **Notes:**

Hybrids should only be compared within their RM groups.

Hybrids that have been tested more than one year should be given more weight because they have performed above-average in more tests.

## **Principal Investigators:**

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

## **Participating Farms:**

Canton: Greenwood Dairy; Chazy: W.H. Miner Institute

## **Participating Educators and Research Institute Representatives:**

In St. Lawrence County: Peter Barney, 315-379-9192; and at the W.H. Miner Agricultural Research Institute: Everett Thomas, 518-846-7121

**Table 1. Recommended 75-100 day corn silage hybrids in Northern New York based on tests in Clinton and St. Lawrence counties in 2005**

| Brand                               | Hybrid       | ----- Comparative ----- |               |            | Years in Test |
|-------------------------------------|--------------|-------------------------|---------------|------------|---------------|
|                                     |              | Silage Yield            | Milk/Ton<br>% | Milk Yield |               |
| <b>75-85 day Relative Maturity</b>  |              |                         |               |            |               |
| Hyttest                             | HT7060Bt/RR2 | 102                     | 104           | 104        | 2             |
| Hyland                              | HL S011      | 106                     | 98            | 104        | 3             |
| Hyland                              | HL S014      | 102                     | 100           | 102        | 4             |
| Hyland                              | HL S009      | 102                     | 102           | 102        | 3             |
| <b>86-90 day Relative Maturity</b>  |              |                         |               |            |               |
| Hyttest                             | H17220Bt/RR2 | 110                     | 100           | 109        | 3             |
| NK                                  | N34-F1       | 106                     | 102           | 108        | 1             |
| Hyland                              | HL S034      | 108                     | 99            | 107        | 4             |
| NK                                  | N29-A2       | 103                     | 103           | 105        | 1             |
| Garst                               | 8922YG1      | 99                      | 103           | 102        | 1             |
| <b>91-95 day Relative Maturity</b>  |              |                         |               |            |               |
| Mycogen                             | TMF2N422     | 112                     | 101           | 112        | 1             |
| Mycogen                             | T23326       | 109                     | 102           | 111        | 1             |
| Garst                               | 8787YG1      | 111                     | 100           | 110        | 2             |
| Hyttest                             | TNT-92RR2    | 102                     | 104           | 106        | 1             |
| NK                                  | N33-H6       | 108                     | 97            | 104        | 3             |
| FS Seeds                            | 4453XRR      | 105                     | 97            | 102        | 1             |
| NK                                  | N3030Bt      | 101                     | 102           | 102        | 6             |
| Pioneer                             | 38B85        | 103                     | 99            | 102        | 1             |
| <b>96-100 day Relative Maturity</b> |              |                         |               |            |               |
| Doebler's                           | 470RR        | 107                     | 97            | 103        | 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](http://www.nnyagdev.org) on the web. ♦

Northern New York Agricultural Development Program  
162 Morrison Hall ~ Cornell University  
Ithaca, NY 14853 ~ 607-255-7286  
[www.nnyagdev.org](http://www.nnyagdev.org)