

Dear Corn Testing Cooperator:

Enclosed are the entry forms for the 2006 corn performance testing for both the corn grain and the corn silage testing programs. We appreciate your participation in these activities. This year please include the specialty traits for each entry in the column provided. Also new for 2006 will be a corn grain trial at the Northwest Research and Outreach Center in Crookston. Note that grain yield is not measured in the corn silage trial, so if you want grain yield on your silage varieties please enter them into the grain trial. The testing committee reserves the right to reject applications received after April 3, 2006 and the right to enter varieties of their own choosing. If you have questions about the corn grain test, call either Tom or Dale. If you have questions about the corn silage tests, call either Matt or Doug. Thank you for participation in these programs.

Sincerely,

Tom Hoverstad  
University of Minnesota  
Southern Research and Outreach Center  
35838 120<sup>th</sup> St  
Waseca, MN 56093  
507-837-5624

Matt Bickell  
University of Minnesota  
Southern Research and Outreach Center  
35838 120<sup>th</sup> St  
Waseca, MN 56093  
507-837-5628

Dale Hicks  
University of Minnesota  
Department of Agronomy and Plant Genetics  
1991 Buford Circle  
St. Paul, MN 55108  
612-625-1796

Doug Swanson or Craig Sheaffer (Corn Silage Testing)  
University of Minnesota  
Department of Agronomy and Plant Genetics  
112 Crop Research Bldg  
1902 Dudley Ave  
612-624-7729 or 612-625-7224

Enclosure

**Corn Grain Performance Testing, 2006**  
**University of Minnesota**  
**Agriculture Experiment Station**

**Corn Performance Testing Coordinators:** T.R. Hoverstad (507-837-5624), D.R. Hicks (612-625-1796).

**Corn Testing Committee:** D.R. Hicks, T.R. Hoverstad, S. R. Quiring, G.A. Nelson, and R. Bernardo

The corn testing committee will conduct performance tests of hybrid corn adapted to Minnesota.

**Locations**

**New for 2006 the northern zone will now include a site at Crookston** along with the locations at Rothsay and Staples and will test 95 day Minnesota RM hybrids and earlier. The central zone includes locations at Morris and Rosemount and will test 90 to 105 RM hybrids. The Southern Test will be conducted at Lamberton, Plainview and Waseca and will test hybrids in the 95 to 115 RM range.

**Fees** for each location are \$100 resulting in total costs of \$200/ entry for hybrids in the central zone and \$300/ entry for hybrids tested in the northern and southern zones.

**Experimental Procedure** – Randomized block design with 3 replications will be planted at each site for each zone and results will be analyzed using valid statistical procedures. Hybrids will be seeded in 2-row plots at 33,000 seeds per acre population and 30-inch row spacing.

**Harvesting** – Plots will be harvested with a 2-row plot combine, recording both grain weight and moisture.

**Results provided** – Yields are given for individual locations along with yields and harvest moisture contents averaged across locations. Reported yields are adjusted to 15.5% grain moisture. Results will be presented in maturity groups and sorted by grain moisture average across locations.

**Publication of results** – Results will be published and made available to the public via standard publication format and electronic medium (e.g. *Minnesota Varietal Trials Results*, [www.maes.umn.edu](http://www.maes.umn.edu), *Agri News* – Rochester Post Bulletin and the U of Minnesota SROC website, <http://sroc.coafes.umn.edu/>). In addition, results for each region will be used in regional education programs and publications by extension educators. Results will be available in early December, 2006. Every effort will be made to report hybrid entry data from each location. If conditions beyond our control make this impossible, no financial liability is implied by the University of Minnesota Agricultural Experiment Station.

**Corn Silage Testing, 2006**  
**University of Minnesota Agriculture Experiment Station and Extension Service**

**Corn Silage Testing Coordinators:** C.C. Sheaffer (612-625-7224), D.R. Swanson (612-624-7729), M. D. Bickell (507-837-5628).

**Corn Silage Committee:** C.C. Sheaffer, D.R. Swanson, M. D. Bickell, T.R. Hoverstad, P.R. Peterson, F.B. Breitenbach, L.M. Behnken, J.L. Halgerson, D.C. Martens, D.L. Holen, V.W. Crary

The corn silage committee will conduct silage performance tests of hybrid corn adapted to Minnesota.

### **Locations**

The southeast dairy region includes locations at Potsdam (Olmsted County) and LaCrescent (Houston County). The central dairy region includes locations at Paynesville (Stearns County) and Melrose (Stearns County).

### **West Central Location**

This site will be in the west-central dairy zone in Otter Tail County. It will be a strip trial with 3 replications harvested for whole-plant herbage yield. The fee for this site is \$175 and requires a full bag of seed. Herbage samples will be analyzed to determine forage quality by the forage testing laboratory at the University of Minnesota in St Paul. If interested in participating in this trial please contact Doug Holen at 218-998-5787 or email Doug at [holen009@umn.edu](mailto:holen009@umn.edu) for additional information.

**Fees** - The southeast and central dairy regions are \$300 for each hybrid entered. This fee covers planting at the two locations within each region.

**Experimental procedure** - Randomized block design with 4 replications will be planted at each site for each region and results will be analyzed using valid statistical procedures. Hybrids will be seeded in 2-row plots at a 33,000 seed per acre population and 30-inch row spacing.

**Harvesting** - Whole-plant herbage will be sampled to determine yield and forage quality when average whole-plant moisture of enrolled hybrids at each location reaches 65% moisture content.

**Results provided** - Quality measurements of whole-plant forage will include moisture content, crude protein; acid detergent fiber (ADF, a predictor of digestibility); neutral detergent fiber (NDF, a predictor of intake potential); *in vitro* digestibility (IVD, a biochemical procedure with 48 hour fermentation which estimates animal digestion); NDF digestibility (NDFD, estimates digestibility of the cell wall fraction) and starch concentration. Milk per ton and milk per acre will be calculated for each entry using the MILK2000 spreadsheet developed at the University of Wisconsin.

Yield measurements will include whole-plant dry matter and silage yields, and estimates of milk production.

**Publication of results** - Results will be published and made available to the public via standard publication format and electronic medium (e.g. *Minnesota Varietal Trials Results*, [www.maes.umn.edu](http://www.maes.umn.edu), *Agri News* – Rochester Post Bulletin and the U of MN forage website, <http://forages.coafes.umn.edu/> . In addition, results for each region will be used in regional education programs and publications by extension educators. Results will be available in mid November, 2006. Every effort will be made to report hybrid entry data from each location. If conditions beyond our control make this impossible, no financial liability is implied by the University of Minnesota Agricultural Experiment Station.

