

CORN SILAGE RESEARCH SURVEYS HYBRID EFFECTS

Greg W. Roth Penn State Agronomy **Assistant Professor**

Since 1991, the University of Wisconsin has been surveying adapted corn hybrids for silage productivity and nutritive value.

This project has been coordinated by Dr. Jim Coors, a corn breeder in the Department of Agronomy at Wisconsin.

Recently, Dr. Coors reported on some of his findings to date at the 1994 Wisconsin Forage Council's Forage Production and Use Symposium. The project evaluated 30-40 early and late maturing hybrids at two locations during both 1991 and 1992.

During both years of the study, there only was a weak relationship between grain yield and silage yield of com hybrids. This indicates that grain yield performance is not a good indicator of silage yield potential. In the early hybrid trial, for example, none of the top five grain yielding hybrids were in the top five for silage yield. This confirms the results of several other studies and justifies the need for separate hybrid evaluations for silage.

Forage quality differences among hybrids varied from about 5 to 8 units for NDF and 2 to 4 units for in vitro digestibility. Differences among hybrids in the digestibility of cell walls ranged from 4 to 7 units. The project also evaluated quality characteristics in the stover part of the plants and found hybrid differences generally to be greater there.

In general, the researchers found few relationships

between yield and quality, which indicates that it should be possible to breed high yielding hybrids that also have high quality.

Many breeders have been concerned about the repeatability of hybrid silage quality data. In this project, Coors measured repeatability of the yield and silage quality traits. He found that the repeatabilities for NDF and cell wall digestibility were similar to those for grain or silage yield. This indicates that testing strategies, such as the number of field plots and reps required for these traits should be similar to those used for grain yield evaluation.

This study indicates that breeding hybrids for improved silage quality appears to be possible, since variation exists in current germplasm and there do not appear to be yield losses associated with improved quality traits.

Lee Hitz, Annville, right, accepts the second place award in the 3 acre+ harvest size class, shelled grain, from Curt Rakestraw, secretary-treasurer of the Pennsylvania Master Corn Growers Association.



award from the shelled grain class regular harvest size from Curt Rakestraw, secretary-treasurer of the Pennsylvania

Ed Snook, Jersey-Shore, right, accepts the third place Master Corn Growers Association.



D. Richard Snyder, Montoursville, right, accepts the first place award in the 3 acre+ harvest size shelled grain class from Curt Rakestraw, secretary-treasurer of the Pennsylvania Master Corn Growers Association.

Club 5-Acre Corn

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using Pioneer 3358; second to Thomas Pepper, Canton, for a 197.8 bushel/acre yield using

DeKalb 646; and third to Kenneth Schlegel, Fleetwood, for a 178.6 bushels/acre yield using Pioneer 3293.



Herman Manbeck, Womelsdorf, right, accepts the first place award in the shelled grain class regular harvest size from Curt Rakestraw, secretary-treasurer of the Pennsylvania Master Corn Growers Association.





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JD 7000 6R30 w/dry fert, insect, unit coulters \$7,500

JD 7000 6R30 Cons w/dry fert, insect, unit coulters......**\$7,500**

JD 7000 6R30 Cons w/liquid fert, insect, frame coulters.....\$8,850

JD 7200 6R30 Cons w/liquid fert, insect, frame coulters, vacuum meters, monitor (coming in).....\$16,500







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