

WQS Biofeedstock Evaluation

In 2007, WQS cycles 0 and 3 as well as testcrosses to two stiff stalk testers, LH244 and LH332, were planted in two row plots in three replications in two locations, Madison and Arlington, WI. Checks included were W604S x both stiff stalk testers, two *bm3* hybrids (Mycogen F697 and F2F633), a low digestibility check (WFIHISI C3), and a grain hybrid (Pioneer 34A20).

Trials were planted in Madison on 5/7 and in Arlington on 5/21. June and July were very dry in both locations followed by a rainy, wet August that contributed to significant lodging in both locations. Stover was harvested following manual removal of all ears. Plots were harvested at full maturity in Madison on 10/12 and on 10/4 in Arlington. Whole plant dry matter percent and yield were calculated (DM% average- 43.7%; DM Yield average- 3.4 Mg/ha).

Dried stover samples were ground for NIRS estimation and laboratory analysis of stover quality traits: neutral detergent fiber (NDF), acid detergent fiber (ADF), acid detergent lignin (ADL), *in vitro* true digestibility (IVTD), and *in vitro* NDF true digestibility (NDFD). Quality values reported are predicted from an internal NIRS calibration based on laboratory values from this study. Cellulose and hemicellulose concentrations were predicted using a global NIRS calibration set currently under development in our program.

This study will be repeated in 2008.