

## CORN SILAGE PERFORMANCE IN NARROW ROWS

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### Statement of Problem:

Is corn silage yield and/or quality effected by row spacing and/or population.

### Goal:

To investigate the potential of narrow row spacing to improve corn productivity and profitability in Michigan.

### Objectives:

Determine if row spacing and/or population has an effect on silage yields in Michigan.  
Investigate any effects on silage quality due to row spacing and/or population.  
Examine the effect of hybrid type on yield response to row spacing and/or population.

### Summary of Progress:

In 1997, narrow row silage trials showed increased yield response for 3 of 4 hybrids in narrow rows. Response to population was significant for only one hybrid across all populations. Significance in quality was not determined. With support from Mycogen , Pioneer, and Brown Seeds we continued the narrow row silage trials in 1998.

### Hybrids:

Brown Seeds	BR X6990
Mycogen	TMF 106
Pioneer	36H36
Mycogen	TMF 108

### Yield Summary:

Individual yield comparisons can be seen in Table 1A, Table 1B shows the yields averaged across population and row spacing. Yield response to row spacing (1B) happened with three hybrids. One hybrid showed a decrease in Gwt/A (Green weight in tons per Acre) in narrow rows and one hybrid showed a decrease in Dwt/A (Dry weight in tons per Acre) in narrow rows. The third hybrid showed significant yield response in 15 inch rows for both Gwt/A and Dwt/A. Yield response for Gwt/A by population was seen in all hybrids at the 30,000 ppa (plants per acre) level, while only one hybrid had increased yield response at 35,000 ppa. Dwt/A response happened with three hybrids, one at the 30,000 ppa and two at the 35,000 ppa. Averaged across all hybrids, Gwt/A was no different while Dwt/A showed yield increase for 15 inch rows over 22; population responded with yield increases in both Gwt/A and Dwt/A for each increase of population. Complete results are also available on the Internet at [www.css.msu.edu/varietytrials](http://www.css.msu.edu/varietytrials).

### Silage Quality Summary:

Results in Table (2B) showed no response in silage quality due to row spacing by hybrid averaged over populations, or averaged across all hybrids. One hybrid did show a response in silage quality between populations.