

# NARROW ROW DATE OF PLANTING

The planting date study was set up in 1998 to investigate the effect of narrow rows on late-planted corn. In 1997, trials that were planted late in the season did not show a significant yield advantage for narrow rows. The data for 1998 however, showed that the later planted corn did indicate an advantage toward narrow rows. This advantage was due to better growing conditions favoring later planted corn.

In this study, conducted at Michigan State University, three planting dates were used: early, mid, and late season. A set of hybrids was selected so that one hybrid out of three would best fit the maturity for each planting date. There was a two-week delay between planting dates. The three hybrids were planted in 30-, 22-, and 15-inch row spacing at populations targeting 28,000, 34,000, and 40,000 plants per acre, which is increased up 2,000 plants per population from 1998. It was felt that we were not pushing the population high enough to force the separation yields due to population.

The following hybrids used in 1998 were also used in 1999. Listed below are the hybrids with their plant characteristics.

<u>Company</u>	<u>Hybrid</u>	<u>Maturity</u>	<u>Ear type</u>	<u>Height</u>
Novartis	Max 86	93 day	Determinate	Tall
DeKalb	DK 493	99 day	Indeterminate	Medium
Pioneer	PIO 3491	107 day	Flex	Short

The following table listed the planting date for each hybrid:

<u>Trial</u>	<u>Planting Date</u>	<u>Harvest Date</u>
Date 1	April 29	September 25
Date 2	May 14	September 25
Date 3	May 27	October 3

## Results

### Planting Date 1 Table 7A-F

Two of the three hybrids had the largest average yield for this planting date. Two of the hybrids had significant yield increase to row spacing when averaged over populations. One hybrid showed significant yield increase to population when averaged over row spacing.

### Planting Date 2 Table 7A-F

One of the three hybrids had the largest average yield. Only one of the hybrids showed some yield increase to row spacing when averaged over population. Not one of the hybrids had significant yield increase for population when averaged over row spacing.

Planting Date 3 Table 7A-F

This planting date trial had the lowest average yield for all the hybrids. Not one of the LSD comparisons for row spacing and population were significant. There is no significant yield comparison for row spacing when averaged over population. When yields are averaged over row spacing there is no yield advantage for population.

**Summary**

The following table shows the number of times by planting date where one row spacing had a significant increase in yield over another:

<u>Row spacing</u>	<u>Planting Date 1</u>	<u>Planting Date 2</u>	<u>Planting Date 3</u>
15 over 30	4	1	0
15 over 22	0	3	0
22 over 20	1	0	0
22 over 15	0	0	0
30 over 15	0	0	0
30 over 22	0	1	0

The data for this report has been compiled from the 1999 trials only. Due to time restraints, multiple year data has not been completed. The following tables are a summary of the 1999 trials by location.