

**Preliminary Report Presented to the  
Arkansas Corn and Grain Sorghum Promotion Board  
December 4, 2002**

**Project Title:** Low Input, Ultra-Short Season Corn Production

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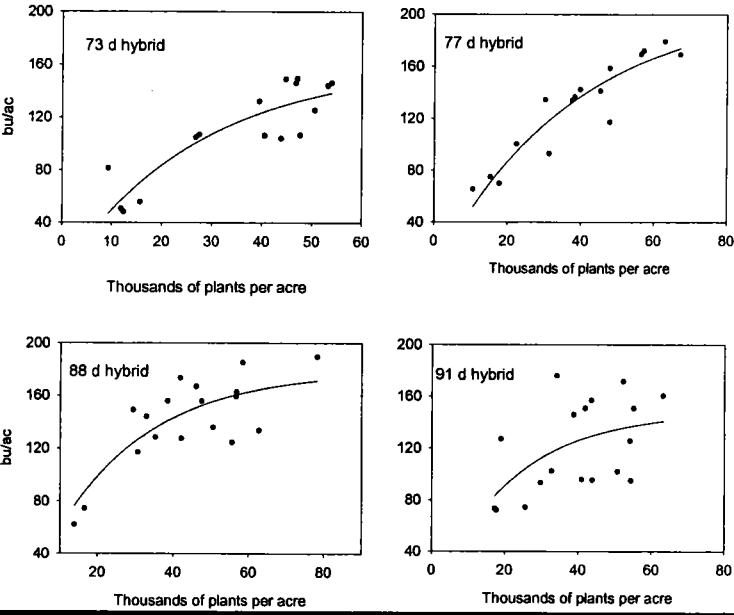
Our experiments in 2001 indicated that yield of very early maturing corn hybrids (73 day and 85 day maturity) when planted in 20 inch rows at population densities of 50,000 plants per acre or greater was similar to the yield potential of an 105-day hybrid. A major advantage of the short season hybrids was a decreased irrigation requirement. In 2001, we were also able to double crop soybean (maturity group 0 through II cultivars) behind the harvested corn with yields ranging from 30 to 45 bushels per acre.

Experiments in 2002 were conducted at experiment stations at Fayetteville and Keiser and an on-farm experiment at David Feilke's farm. At both Fayetteville and Keiser, row width was 20 inch and yield was evaluated at populations ranging from approximately 20,000 to 80,000 seeds per acre. At the Feilke farm, row width was 30 inches and the target population was 50,000 seed per acre.

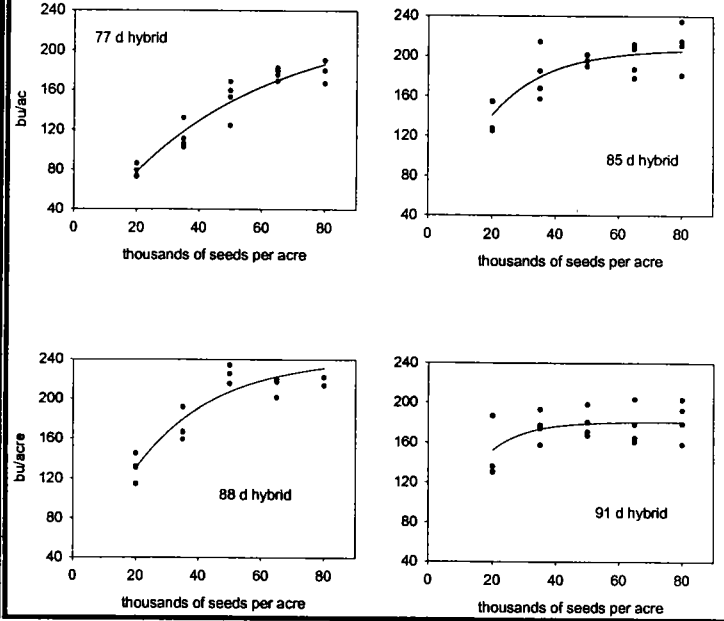
In general the responses that we found in 2001 were repeated in 2002. Yields of early-maturing hybrids increased greatly as population was increased up to about 50,000 plants per acre (See figures on next page). Yields at Keiser were generally greater than at Fayetteville. At Keiser, the 85-day and 88-day hybrids had yields over 200 bushels per acre at populations greater than or equal to 50,000 plants per acre. Yields at the Feilke farm were considerably lower than at the experiment stations. We believe this to be due to a late stand establishment and the wider row widths.

Short-season corn production appears to have excellent possibilities for the midsouth, but management is considerably different than for full-season hybrids. Key factors include narrow row widths and high population densities. Advantages include decreased irrigation requirements, increased rotational options (including double cropping soybean), potential marketing advantages, and spreading use of labor and equipment.

Fayetteville, 2002



Keiser, 2002



Feilke Farm, 2002

