

## SOYBEAN MATURITY GROUP III TRIAL

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**ABSTRACT:** Five Roundup Ready maturity group III varieties were evaluated on a Leeper silty clay soil in 2002. The environmental growing conditions for maturity group III soybeans were very favorable from planting through August 1. All varieties matured in early August. Due to a dry August, the varieties showed no seed rot or seed quality problems. The yields ranged from 41.1 to 52.8 bu/ac with a study mean yield of 46.8 bu/ac. The highest yielding variety was AG 3702 with 52.8 bu/ac. The lowest yielding variety was DPX 3940RR with 41.1 bu/ac. The preliminary data indicate that with good environmental growing conditions, maturity group III varieties have potential for North Mississippi.

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**KEYWORDS:** Soybean, maturity group III

**MATERIALS AND METHODS:** The study was conducted in 2002 on a Leeper silty clay loam soil, Verona, MS. The experiment was conducted as a randomized complete block design with four replications. Plot size was 4 (30-inch) rows x 20 ft.

Fertilizers P and K were applied based on soil test recommendations. Granular potash (K<sub>2</sub>O) at 250 lb/ac was applied surface broadcast on 10/24/01. The study area was paratilled 11/05/01; bed-rolled 11/05/01; and rebedded 3/05/02. The study was planted no-till on 4/17/02. A burndown application of Gramoxone Max (paraquat) + surfactant at 1.0 lb ai/ac + 0.5 pt/ac was applied 4/18/02.

Roundup at 1.0 lb ai/ac was applied as a postemergence application on 5/16/02 and 6/04/02. First Rate (cloransulam) + surfactant at 0.25 oz ai/ac + 0.2 pt/ac was applied postemergence on 6/04/02 and repeated 6/17/02. Orthene (acephate) at 0.27 lb ai/ac was applied for striped blister beetle (*Epicauta vittata*) control on 6/24/02.

The 2 center rows of each variety were harvested within 5 days after maturity with a plot combine. Following harvest, the grain was cleaned with a 3-sieve seed cleaner, weighed, and seed moisture and test weight were determined with a Dickey John<sup>®</sup> GAC 2000 grain analysis computer. Yields were adjusted to 13% seed moisture. Treatment mean yields were separated using Fisher Protected LSD at 5% significance level.

**RESULTS AND DISCUSSION:** The maturity group III varieties had excellent growing conditions. Rainfall during the growing season was 12.1, 2.4, 7.7, and 2.1 inches for May, June, July, and August, respectively. All soybean varieties matured in early August. Due to a

dry August, the varieties showed no seed rot or quality problems. Yields ranged from 41.1 to 52.8 bu/ac with an overall mean of 46.8 bu/ac (Table 1). The highest yield variety was AG 3702 with 52.8 bu/ac. AG 3902 and AG 3702 had no yield difference. DPX 3919RR, DPX 3910RR, and DPX 3761RR were lower in yield than AG 3702 and AG 3902. The preliminary data indicated that maturity group III soybeans have potential for North Mississippi.

**COOPERATORS:** None

**PUBLICATIONS:** None

**Table 1.** Roundup Ready Group III soybean variety trial planted 4/17/02 on a Leeper silty clay loam soil, Verona, MS, Lee County<sup>1</sup>.

Variety	Brand	Bu/ac	BTW lb/bu
AG 3702	Asgrow	52.8	56.0
AG 3902	Asgrow	52.2	55.4
DPX 3919RR	Deltapine	46.4	55.9
DPX 3761RR	Deltapine	41.4	55.8
DPX 3940RR	Deltapine	41.1	55.7
Overall Mean		46.8	55.7
LSD (0.05)		4.7	0.2
CV (%)		6.6	0.2