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SOYBEAN VARIETY TEST

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SUMMARY

Eight soybean varieties in different maturity groups were evaluated for yield at Overton, Texas in 1987. Results indicated that early planted (April 1), and early maturing soybeans were higher yielding with a mean yield of 24 bu/ac, compared to 17 bu/ac for the May 6 planted test. These results indicate that the sandy soils of East Texas may have potential to produce soybean yields of 20 to 25 bu/ac. However, problems to consider are marketing, storage and price per bushel.

INTRODUCTION

A soybean variety yield trial was conducted to determine if soybeans can be grown in East Texas environmental conditions. A second objective was to determine the most optimum planting date for the varieties investigated in this study.

PROCEDURES

The test was located on a well drained sandy loam soil. It was fertilized with 100 lbs of P_2O_5 and K_2O /ac. The field was bedded on 32 inch centers. A preplant herbicide tank mix of Dual (1 1/2 pt/ac) and Septor (2/3 pt/ac) was applied. A postemergence treatment of Poast (1 1/2 pt/ac) was applied during the growing season for crabgrass control. A John Deere Flex 71 unit was used to plant four row plots of soybeans on beds 22 ft long. Eight varieties were planted April 1 and again May 6, 1987.

The center two rows of soybeans, 14 1/2 ft long were harvested with a Hege plot combine in mid-August. Planting dates were analyzed separately. Each experiment had four replications.

RESULTS

Yield, plant height, lodging, and date of maturity are presented (Table 1). Soybeans planted April 1 produced a mean yield of 24 bu/ac, compared to only 17 bu/ac for soybeans planted May 6. Yields ranged from 19 to 28 bu/ac in the early soybeans. Only Crawford and Fayette were significantly different in yield at 0.05 level of probability. In the late planted test the range was from 10 to 20 bu/ac. Asgrow 2522 and Crawford produced significantly lower yields than other varieties.

Maturity groups in this study were II, III or IV. No apparent differences for yield can be attributed to maturity group. An earlier planting date may have favored group II or III, however stand losses caused by an April frost probably would have occurred.

Late planted soybeans were slightly taller in plant height (1 to 3 inches) and pod height (about 1 inch) than the early planted soybeans. No differences were observed for lodging or for maturity date. Later planted soybeans were slightly later in maturity, but tended to compensate (due to day length response) by taking fewer days to produce a crop than early planted soybeans. Although planted 36 days earlier, the late planted varieties matured only 4-13 days later. The yield was reduced on all varieties at the later planting.

Results of just one year are inconclusive. Variety tests will be continued.

Soybean variety test planted at two dates at Overton, Tx in 1987.

Variety	Maturity group	Yield bu/ac	Plant ht. inches	Pod ht. inches	Lodging %	Maturity date
Planted April 1, 1987						
Crawford	IV	28 a*	37	3	23	8-10
Asgrow 3966	III	27 ab	31	3	15	8-8
Asgrow 2522	II	25 ab	24	2	0	8-3
Asgrow 2943	II	25 ab	26	3	10	8-7
Sparks	IV	24 ab	30	3	20	8-10
Williams 82	IV	21 ab	31	3	20	8-8
Kansas 1106	IV	21 ab	31	3	15	8-6
Fayette	III	19 b	27	2	15	8-5
Mean		24	29	3	15	
Planted May 6, 1987						
Sparks	IV	20 a	38	3	15	8-14
Asgrow 3966	III	19 a	34	3	10	8-16
Asgrow 2943	IV	19 a	27	3	5	8-12
Fayette	III	18 a	38	4	18	8-16
Kansas 1106	IV	17 a	32	3	10	8-15
Williams 82	IV	17 a	33	3	15	8-13
Asgrow 2522	II	13 b	28	3	10	8-9
Crawford	IV	10 b	37	4	15	8-23
Mean		17	34	3	12	

*Means followed by the same letter are not significantly different at the 5% level as judged by the LSD method.