REGISTRATION OF DES 56 COTTON
(Reg. No. 70)
R. R. Bridge and J. F. Chism

'Des 56' cotton (Gossypium hirsutum L.) was developed at the Delta Branch, Mississippi Agricultural and Forestry Experiment Station. DES 56 originated from a cross between 'Stoneville 213' and 'PD 62-164'. The F2 population of this cross was intercrossed at random. DES 56 is from a single plant selection in the F2 generation of the intercross population and a subsequent reselction in the F7 generation. DES 56 has been tested since 1971 as DES 2134-056.

DES 56 is an early maturing and rapid fruiting cotton with dark green foliage. It produced 9% higher lint yields and matured 10 days earlier than ‘Deltapine 16’ in 25 Delta environments over the past 6 years. DES 56 has smaller bolls and seed, slightly shorter fiber, and its height is approximately 15 cm less than that of Deltapine 16. Lint percentage, fiber strength, and micronaire values are approximately the same as those of Deltapine 16. Data from Arizona and Louisiana have shown that the earliness of DES 56 is sufficient to escape some late season insect damage.

Mississippi Foundation Seed Stocks will produce foundation seed which will be sold on a pro rata basis to breeding firms and individuals meeting all standards of the Mississippi Seed Improvement Association for the production of registered seed. When the demand for Mississippi producers has been met, foundation seed may be released to other states provided they have qualifications of those requested of Mississippi producers.

Breeder seed will be maintained by Delta Branch, Mississippi Agricultural and Forestry Experiment Station. Variety protection will be applied for under the Variety Protection Act, Public Law 91-557.

REGISTRATION OF SPEAR OATS
(Reg. No. 279)
Dale L. Reeves

‘SPEAR’ oats (Avena sativa L.), SD 955, CI 9203, is a spring oat cultivar developed by the South Dakota Agriculture Experiment Station and released 15 Dec. 1974. Spear was selected for its midseason maturity, strength and grain protein content.

A single F2 plant was selected from ‘Dal’ and advanced in bulk for testing. Ultraviruses were removed in the F2 and F3 generations. The plants most susceptible to ‘coronata Cda. f. sp. avenae’ Fraser and Le dashed’ crown rust and ‘cima graminis’ Pers. f. sp. avenae’ Erichson. Other off-type plants were rogued from the stand grown in South Dakota standard variety, and the Uniform Midseason Oat Performance Tests 1968-71 and 1973.

Spear is a midseason oat that heads between ‘Chief’ and ‘Garland’. Plants are mid-green to Garland and ‘Diana’. Straw strength is good and algae are present on some plants. Kernels are round and may be light yellow to yellow in coloration. The kernels become more yellow as they mature. The coloration of the aerial may become darkened and similar to that of most other commercial cultivars. Grain protein percentage is good, being about 10% higher than ‘Otee’. Grain protein percentage is high with the 1975 test in South Dakota. Groats have averaged about 7% oil.

Spear is moderately resistant to crown rust prevalent at the time of release, and intermediate to ‘Chief’, ‘Garland’, ‘Holden’, and ‘Trio’. Spear are moderately resistant to crown rust susceptible segregates are present. Spear is to barley yellow dwarf virus than ‘Frolic’ and susceptible to most known grapevine.