EVALUATION OF SOUTHEASTERN ND DELTA TYPE VARIETIES FOR STORMPROOF CHARACTERISTICS

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Abstract

Stormproof characteristics refer to how tightly a particular variety of cotton holds its lint prior to or during harvest. Although influenced by the environment, there appears to be differences between some varieties in the degree to which cotton is lost due to weathering from defoliation until harvest. A study was initiated in 1996 with the objective of characterizing the stormproofness of twenty varieties commonly grown in North Carolina. An supplemental study was initiated in 1997 to look at how the stormproofness, of some varieties facilitated mechanical spindle picking. In 1996 and 1997 seedcotton that fell to the ground was collected from 10 feet of row middle for twenty varieties replicated 4 times from defoliation until the realistic end of the harvest season. In 1997, a supplemental study collected the amount of seedcotton left on the plant after spindle picking for two locations of the North Carolina Official Variety Trial. Sample area was 10 feet of row and each variety was replicated 5 times. Results from 1996 show a number of differences between varieties. DPL 20, DPL 51, SG 501, STV 474, LA 887, Georgia King, HS 46, and PM 1560 lost more seedcotton to weathering than other varieties. DPL 5409, DPL 5690, and PM 1244 lost the least amount of seedcotton. In 1997 there were fewer differences observed between varieties, possibly due to a shorter growing season, or other environmental factors. When the data are combined over both years, SG 501, STV 474, LA 887, Georgia King and HS 46 lost more seedcotton than other varieties, while DPL 5409, DPL 5690, PM 1220, and PM 1244 lost the least amount to weathering. In the supplemental study, the percentage of total seedcotton picked mechanically was numerically greatest for SG 501 and HS 46 of those varieties included in the lint loss study. Although there were few significant differences, the data from that study indicates that those varieties that consistently lose more seedcotton to weathering may also pick cleaner. Stormproof characteristics may be viewed as beneficial if cotton is left in the field for a long length of time before picking. Conversely, poor stormproof characteristics may be viewed as beneficial if cotton is picked in a timely manner because our data suggests that it may pick cleaner. Future investigations are needed to more clearly separate differences that may exist between varieties, and aid growers in tying variety selection to defoliation and harvest scheduling.

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