

**COTTON (*GOSSYPIUM HIRSUTUM* L.)
RESPONSE TO MID-SEASON HURRICANE
DAMAGE**

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Abstract

Hurricanes that occur each year in the coastal regions of the USA damage crops. The extent of the damage is dependent on storm duration, intensity, crop status, and length of growing season remaining. While hurricanes occur each year, there were no published reports found in scientific journals describing their damage to cotton. The objective of this project was to evaluate the effects of Hurricane Erin on August 3, 1995 on cotton planted in early May in the Gulf Coast region of Alabama located near Pensacola, FL. On August 15 and 16, 1995 and again on September 17-19, 1995, observations were made in 15 fields (4 sites/field). The fields were located within a 5 mile radius of each other and within 15 miles of the eye of the storm on the western side. The following data were collected from each site: stand/5 meters of row, number of total sound bolls (not rotted or insect damaged), rotten bolls and, insect damaged bolls. In each field, 10 plants were mapped for height, boll location, and number of reproductive nodes. Visual observation of the fields indicated a red coloration in the leaves with small bolls and squares shedding within 7 days after the storm. Plant growth after the storm was very slow and, in many cases, halted. The change in cotton height for the 33 days observation period ranged from unchanged (-3 cm) to 11 cm with an overall average of 5 cm. The number of reproductive nodes produced in the 4 weeks was relatively unchanged and ranged from -1 to 1 node/plant. Percent abscission of first and second position fruiting forms on the top 5 nodes ranged from 50 to 100%. The change in boll count for the 4 week period ranged from -5 to 10 bolls/m with an average of 2 bolls/m. In all fields, the incidence of boll rot increased from 9 to 30% from the first to second observation date. Insect damaged bolls did not increase; therefore, the boll rot was likely due to the plants leaning close to the soil, reduced air movement, and reduced light penetration.