## RESULTS FROM SMALL AND LARGE PLOT MESSENGER® STUDIES IN SOUTH GEORGIA S. M. Brown, C. W. Bednarz, J. T. Flanders, S.N. Brown and T.B. Tankersley University of Georgia Tifton, GA

Messenger is a biochemical pesticide which contains a harpin protein as the active ingredient. Harpin protein is derived from the common bacteria Erwinia amylovora and reportedly stimulates hypersensitive responses, natural defense mechanisms, and growth systems within treated plant tissues. The product has been evaluated in several horticultural crops, but to date, only a few studies have involved cotton (Gossypium hirsutum L.). Several small and large plot field experiments were conducted near Tifton, Moultrie, and Cairo, GA, in 2000 to evaluate the effects of Messenger on cotton growth parameters, lint yield, and fiber properties. Treatment regimes included various combinations of Messenger at 2.2 oz/A applied at the 2-leaf stage up through 3 weeks after first bloom. Detailed growth and development analyses were conducted at one site, while yield and fiber quality data were collected at each site. Messenger treatments had no statistically measurable effect on cotton stand count, plant height, number of nodes, first and second position fruit, NAWF, NACB, total boll retention, lint turnout, and lint yield. It did not significantly affect fiber length, uniformity ratio, strength, or micronaire. Similar results were observed in both small and large-plot experiments.