

ASSESSMENT OF MANAGEMENT OF FOLIAR DISEASES OF COTTON IN GEORGIA**R.C. Kemerait****F.H. Sanders****The University of Georgia****Tifton, GA****S.N. Brown****The University of Georgia****Moultrie, GA****W.A. Mills****University of Georgia Attapulgus Research and Extension Center****Attapulgus, GA****J. Clark****W.E. Harrison****D.E. McGriff****J. Jacobs****B.R. Mitchell****University of Georgia Cooperative Extension****J.E. Woodward****Texas AgriLife Extension****Lubbock, TX****Abstract**

Foliar diseases of cotton, to include *Stemphylium* leaf spot, *Cercospora* leaf spot, *Ascochyta* “wet weather” blight and areolate mildew, have received significant attention in Georgia in recent years. Concern from growers and crop consultants is based upon the perception of yield losses associated with foliar diseases and questions regarding use of fungicides to manage these diseases. Field trials have been conducted annually in Georgia since 2004 to assess the use of fungicides for the management of foliar diseases of cotton. Field trials have been conducted in Decatur, Tift, and Appling Counties, primarily in small plots. Fungicides assessed during this period have included pyraclostrobin (Headline, 6.1 and 12.2 fl oz/A), azoxystrobin (Quadris, 6.1 and 9.2 fl oz/A), and thiophanate methyl (Topsin M, 16 fl oz/A). Applications of the fungicides have been initiated at either full bloom (50% of the plants in a plot at first bloom), two weeks following first-bloom in a field, or four weeks following first bloom. Some trials have included treatments where a fungicide at a specific rate is applied once, twice, and even three times on two-week intervals. Diseases assessed in these studies have varied between fields and years, but have included each of the diseases previously mentioned. Fungicides have significantly reduced late-season defoliation associated with foliar disease in three trials: the 2004 Tift County study (*Ascochyta* blight), the 2005 Decatur County study (*Ascochyta* blight) and the 2007 Appling County study (*Ascochyta* and blight and areolate mildew). Severity of leaf disease as assessed as proportion of symptomatic leaf tissue has only been significantly reduced by fungicides in a single trial (Appling County 2007). Despite numeric trends where use of fungicides has improved yields over the untreated control (various fungicides at various rates and timings), use of fungicides has not resulted in a statistically significant yield increase in any of the nine trials evaluated for this paper. To date, the University of Georgia Cooperative Extension has no recommendation for use of fungicides to control foliar diseases of cotton. However such may be recommended in the future if consistent economic benefits can be realized by growers implementing well-timed applications of fungicides.