

**SENSITIVITY OF CORYNESPORA CASSIICOLA ISOLATES TO METCONAZOLE****K. E. Laurel****R. C. Kemerait, Jr.****K. L. Stevenson****University of Georgia****Tifton, GA****M. T. Brewer****University of Georgia****Athens, GA****Abstract**

*Corynespora cassiicola* is the causal agent of target spot of cotton which is of increasing importance in the southeastern U.S. To manage target spot, growers rely on fungicide applications. Metconazole is a component of Twinline, one of the few fungicides labeled for management of target spot. Fungicide resistance is an important consideration where at-risk, site-specific fungicides such as metconazole are used to manage diseases caused by *Corynespora cassiicola*. The objectives of this research were to determine the sensitivity of isolates of *C. cassiicola* from cotton to metconazole and to compare the sensitivity of *C. cassiicola* isolates from other hosts to isolates obtained from cotton. Forty isolates were collected from cotton and 20 isolates from other hosts (soybean, hydrangea, cucumber, pepper, tomato) produced in five states (GA, AL, FL, LA, TN). Sensitivity to metconazole of *C. cassiicola* isolates was determined using a mycelial growth assay. Each of the isolates was tested to determine the fungicide concentration at which mycelial growth was inhibited by 50% ( $EC_{50}$ ).  $EC_{50}$  values of metconazole ranged from 0.015 to 0.203  $\mu\text{g/ml}$  with a mean value of 0.052  $\mu\text{g/ml}$ .  $EC_{50}$  values for isolates of *C. cassiicola* from other hosts ranged from 0.01 to 0.976  $\mu\text{g/ml}$  with a mean value of 0.04  $\mu\text{g/ml}$ . In comparison,  $EC_{50}$  values for isolates of *Corynespora cassiicola* (soybean, Brazil) were 0.47 to 26.44  $\mu\text{g/ml}$  with a mean value of 5.02  $\mu\text{g/ml}$ . Establishment of baseline sensitivities is important to determine whether shifts in sensitivity to metconazole have occurred in the *C. cassiicola* pathogen population in the southeastern U.S.