EVALUATING DAILY YIELD LOSSES DUE TO DELAYED HARVEST AFTER DEFOLIATION C. Meeks J.L. Snider W.M. Porter University of Georgia Tifton, GA T. Griffin Kansas State University Manhattan, KS T.L. Barnes University of Georgia Cooperative Extension Pearson, GA

Abstract

Cotton crops are recommended to be defoliated before harvest in the state of Georgia with harvest generally occurring 14 days after defoliation. However, due to periods of rain or the need to harvest inverted peanuts, harvest may be delayed. Previous research done in 2008 at the Lon Mann Cotton Research Station at Marianna, Ark., and the Southeast Research and Extension Center at Rohwer, Ark had significant yield loss observed after only 21 days after defoliation. In these previous studies, yield loss was consistently higher with each weekly delay. Due to these observations, an experiment was undertaken in 2015 and 2016 to quantify the yield loss due to delayed harvest with a modern cotton cultivar. Field experiments were conducted in 2015 and 2016 at the Lang Rigdon Research Farm on the University of Georgia Tifton Campus in Tifton, Ga. The experiment was conducted using a Split-Block Design with four replications. Treatments included one cotton cultivar (PHY 499 WRF) and eight harvest dates: 7 days after defoliation (DAD), 14 DAD, 21 DAD, 28 DAD, 35 DAD, 48 DAD, 74 DAD, 136 DAD. Additional picking dates were also added in 2016 to include 42 DAD and 78 DAD. Crop yield was not reduced by minor picking delays with significant reductions in observed yields noted with excessive picking delays. Significant reductions in observed fiber quality parameters related to strength and uniformity were noted with excessive picking delays. These observations suggest that current picking date recommendations are at the optimum with some leeway for delays.