

**THE INFLUENCE OF DEFOLIATION TIMING ON  
MICRONAIRE AND YIELDS IN  
NORTH CAROLINA COTTON**

**Joel Faircloth, Keith Edmisten and Randy Wells  
NC State University  
Raleigh, NC**

**Abstract**

Two defoliation timing studies were performed to 1) examine the effects of various defoliation timings on a traditionally low micronaire cotton variety and a traditionally high micronaire cotton variety and 2) see if the imposition of a fruiting gap would influence defoliation timing. The studies were conducted in 1999 and 2000. In both studies plots were defoliated based on percent open measurements. Through yield measurements in the fruiting gap study, in 2000 there was a significant yield advantage to delaying defoliation until the cotton contained 78% open bolls. In years where there was no fruiting gap, the data suggests that cotton should not be defoliated past 60% open bolls to avoid discounts due to high micronaire readings. In both studies trends confirmed the direct relationship that the percent open bolls has with yield and micronaire. Overall, these studies demonstrated that in some years, without the presence of fruiting gaps, it might be possible to terminate North Carolina cotton prior to the recommended 60% open bolls without sacrificing yields. This would allow farmers to shift defoliation and hence harvest to a time when there is less risks of discounts due to inferior quality.