

**WHOLE FARM EVALUATION OF THE
BOLLMAN COMPONENT OF COTMAN**

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Abstract

Unstable cotton prices and inconsistent yields have required cotton producers to better manage production costs. The BOLLMAN component of COTMAN, a computer-aided cotton management program, utilized Nodes-Above-White-Flower (NAWF) data to reduce production costs by improving end-of-season management. Based on crop development status, COTMAN identifies when the last effective flower population has matured to an insect safe level ($NAWF = 5 + 350 DD 60's$). COTMAN therefore, has the potential to save producers unnecessary late-season insect control costs. The objective of this study was to conduct a whole farm evaluation of the BOLLMAN component of COTMAN. The study was conducted on a Lincoln County (Southeast Arkansas) farm in 1998. The farm consisted of 743 acres divided into 13 fields. Weekly NAWF data were collected from each field. Data collection began at approximately first flower and continued until cutout. All fields were scouted and insecticides applied according to consultant and producer recommendations. All costs associated with insecticide applications after $NAWF = 5 + 350 DD 60's$ were determined. Also, replicated plots were established in two of the fields to determine the effect of early termination of insecticides ($NAWF = 5 + 350 DD 60's$) on yield. Results indicated that terminating insecticide use based on COTMAN rules did not significantly effect seedcotton yield, but did increase farm profitability. Terminating insecticide use based on COTMAN rules resulted in an estimated savings of \$23.10 per acre or \$17,160.42 for the whole farm.