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COTMAN AND LARGE FARM PRODUCTION RECORDS: A FOUNDATION FOR COMMUNITY INSECT MANAGEMENT PROGRAMS IN ARKANSAS

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Arkansas has a history of community-based insect management programs. Pioneering work of J. R. Phillips and colleagues in the 1970's and 1980's introduced the concept of community management systems for population control of heliothines. Recent advances in measuring cotton crop stress with the COTMAN management system, practical applications of spatial information management, and improved data organization and synthesis capacities have created unique opportunities to reintroduce the concepts of community-based insect management in Arkansas. With initial assistance from Cotton Incorporated, the Arkansas Agricultural Experiment Station, the USDA Southern Field Crops Laboratory at Stoneville, Mississippi, and the Soybean Promotion Board of Arkansas, we have established foundations for community-management programs at three separate locations in the state. We hope to expand this effort to five or more sites as our research matures and resources are allocated to the effort. The most elaborate effort underway is a detailed study of seven years of COTMAN and crop production records on Wildy Farms in northeastern Arkansas. This is a unique, detailed data set from one of the most intensely managed cotton farms in the country. We will use the example of this farm as a prototype for other locations in the state. The community concept will be established on a diversity of different farms including a variety of different crops. Coordination of this effort across the state will provide spatial and temporal management information for macro-level decisions and information at the state-level.