

Title Cotton Harvest Preparation Using Thermal Energy
Author Paul A. Funk, Carlos B. Armijo, Alan D. Brashears, David D. McAlister III, Allan T. Showler and Michael R. McGuire
Citation 2005 ASAE Annual International Meeting, Tampa Convention Center, Tampa, Florida, 17-20 July 2005, Paper Number 051094, 1 p.
Keywords: Cotton; Defoliation; Thermal Defoliation; Harvest Timing; Fiber Quality

Abstract

Managing cotton for mechanical harvest requires the use of chemicals restricted in organic production. Thermal defoliation is an effective alternative resulting in rapid leaf desiccation. Field trials were needed to determine the best timing for thermal treatment and harvest. Crop termination using thermal energy was compared to conventional defoliation in a variety of locations, cultivars and production practices over two seasons. Field trial results indicate that harvest can commence as soon as 48 hours after thermal treatment. Trials showed that the lint value of thermally treated cotton was the same as or higher than the value of lint from chemically defoliated cotton. Fuel consumption, other fiber quality measures and ginning and spinning test data are presented for eight trials in three states. Organic producers can prepare for mechanical harvest, manage late season insects and actually have more control over harvest timing than conventional producers.