NOTE

Continued Pheromone Release by Boll Weevils (Coleoptera: Curculionidae) Following Host Removal

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Pheromone traps are a key component of management and eradication programs directed against the boll weevil, *Anthonomus grandis grandis* Boheman, but trap data remain difficult to interpret because of the day-to-day variability in captures. A sound understanding of the chemical ecology of the boll weevil, especially with regard to the production of and response to pheromone, is important to continued efforts to improve pheromone traps, lures, and interpretations of trapping data. It is widely accepted that male boll weevils require a suitable food source to initiate and maintain high levels of pheromone production. However, the dynamics of cessation of pheromone production, as may occur when a weevil is captured in a trap or otherwise isolated from a food, have not been thoroughly investigated. Hardee (1970, Contrib. Boyce Thompson Inst. 24: 315–322) concluded boll weevils could continue to release relatively small amounts of pheromone up to 24 h after removal from food. However, this conclusion was based on the response of weevils in olfactometer studies—not direct measurements of pheromone.

We conducted an extensive trapping study to provide some insight on the source of captured weevils by characterizing and comparing the seasonal physiological condition of trap-captured weevils to those infesting the standing cotton (*Gossypium hirsutum* L.) crop (C.S., unpubl. data). One of the morphological characters examined in the study was male accessory gland condition, which is strongly correlated with pheromone production (Spurgeon 2001, Proc. Beltwide Cotton Conf., Pp. 1138–1140). During dissections of weevils in the trapping study, we observed a substantial proportion of trap-captured weevils contained accessory

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