

Management Considerations: Squaring to First Flower

Gus Lorenz, Glenn Studebaker, Scott Stewart, Angus Catchot, Roger Leonard and Jeff Gore

There are three major pests of cotton during the time between pinhead square and first bloom. These pests are the cotton aphid, spider mites and plant bugs. Recent estimates indicate that although the number of insecticide applications for heliothines have decreased in recent years due to Bollgard cotton, boll weevil eradication and other factors, the total number of insecticide applications has remained the same. This would indicate there has been a shift in economic importance for these pests.

Recent studies indicate an increasing tolerance to neonicotinoids by cotton aphid. Increasing use of neonicotinoids both seed treatment and foliar applications may be a serious concern for growers and consultants.

Spider mites appear to be a growing pest concern. Miticides are extremely expensive and there appears to be differences in control between early and late season mites. As with aphids and plant bugs, proper pesticide application is critical. Decisions on when to apply insecticides can have a major impact on incidence and severity of spider mite infestations.

Plant bugs have become the primary pest of cotton in recent years and estimates indicate that Mississippi and Arkansas average as many as 5 applications per year. With recent studies indicate increasing tolerance to insecticides including pyrethroids and acephate, it is important that applications of insecticides be made only when warranted. Studies conducted in the midsouth in 2006 indicate very low levels of plant bugs prior to bloom and that automatic applications did not increase yields.

With increasing concerns of insecticide resistance we must scout carefully and use pesticides judiciously. Loss of any of the insecticides currently used could be devastating to economical insect control and cotton profitability.