IPM APPROACH IN US COTTON WITH AGREVO PRODUCTS

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Abstract

Products such as Phaser, Ovasyn, and Decis have proven to be successful in an IPM approach. A Texas (Brazos bottom) site was chosen as a representative example where an "AgrEvo" program was compared to a "standard" program (choice of consultant). In this approach, an early season application of Phaser was made versus Vydate against fleahoppers. This was followed by three applications of Phaser + Ovasyn versus methyl parathion + Larvin targeting bollworm and tobacco budworm (latter application). Use of Phaser or Phaser + Ovasyn versus the use of Vydate and methyl parathion proved to be less disruptive to beneficials hence, allowing for reduction of mites versus a "flare up" of mites. Ovasyn, a miticide, also reduced the mite population.

The next three treatments targeted bollworm and tobacco budworm. Decis (low labelled rate) + Ovasyn was compared to Karate (mid labelled rate) + Larvin. This was followed by three applications of Decis (high labelled rate) + Ovasyn versus Karate (high labelled rate) + Larvin targeting mainly tolerant tobacco budworm and boll weevil. The rate choices were dependent on population and the main type of insect/mite present. The Decis + Ovasyn treatments were more efficacious overall than the Karate + Larvin treatments against bollworm/tobacco budworm, but were significantly more efficacious against boll weevil. These data also suggest that the higher beneficial counts contributed to these reductions in the mid-season.

Yields were 775 lb lint/A for the "AgrEvo" program versus 633 lb lint/A for the "standard" program. This compared to 372 lb lint/A for the untreated check.

The use of Phaser and Ovasyn early versus use of methyl parathion had a significant impact on beneficials showing their benefit against the insects/mites present. Additionally, benefit was derived by selecting the appropriate dosage for the targeted pest and population pressure. Overall, this IPM approach resulted in improved yields, reduced costs, less waste and a favorable approach to resistance management.