

THE IMPACT OF TEMIK 15G ON THE SOUTHERN HIGH PLAINS OF TEXAS**K.T. Siders****Texas AgriLife Extension Service****Levelland, TX****Abstract**

Cotton (*Gossypium hirsutum* L.) production on the Southern High Plains (SHP) of Texas consisted of 2.84 million harvested cotton acres and approximately 4.01 million cotton bales or 23% of the United States cotton production according to USDA-NASS PR-168-10 Dec. 10, 2010. In Hockley and Cochran counties, two counties of the SHP of Texas area, there were 380,000 acres from which 570,000 cotton bales were harvested. The use of Temik 15G in cotton production is important to this area. One aspect of Temik 15G which has been critical in cotton production for over 30 years is thrips control. There are now alternatives for control of thrips in cotton on the SHP of Texas which include: Aeris, Avicta CC, acephate/Orthene seed or foliar, Cruiser, Gaucho Grande, Bidrin, or dimethoate. Most importantly Temik 15G provides protection to cotton from southern root-knot (SRK) nematode (*Meloidogyne incognita*). A survey of producers in Hockley and Cochran in 2010 indicated that on average 4.2 lbs of Temik 15G was being used on 85% of all irrigated acres. These producers had used Temik 15G for an average of 19.9 years. Fifty-seven percent indicated that they utilized soil sampling on an annual basis to establish severity of SRK nematode infestation. Studies conducted on the SHP of Texas show in the absence of Temik 15G, yield was negatively related to midseason SRK nematode density. When Temik 15G was used at planting, there was no relationship between density and yield. Temik 15G applied in-furrow at planting, followed by a foliar application of Vydate C-LV, has increased cotton lint yields. Studies indicate a relation between black root rot (*Thielaviopsis basicola*) and root necrosis on cotton seedlings caused by SRK nematode. Similar relations occur with Fusarium wilt. Utilizing nematode tolerant cotton varieties such as Stoneville 5458 B2f or Deltapine 174 RF; crop rotation with peanuts or grain sorghum; or the use of the soil fumigant Telone II are all good management tools for SRK nematode which perform better when Temik 15G is used simultaneously when cotton is planted. Temik has provided an average of 27% yield protection from SRK nematodes on the SHP of Texas. For the irrigated cotton acres on the SHP of Texas, the loss of Temik 15G could represent a \$341 million loss of cotton production potential (@ \$0.75/lb lint value). For Hockley and Cochran counties the loss of Temik 15G could account for \$13.4 million loss of cotton production potential.