IMPACTS OF TEMIK ON COTTON IN NEMATODE SOILS

William H. McCarty, H. Randall Smith, and Jay Phelps
Mississippi Cooperative Extension Service
Mississippi State, MS

Abstract

Nematode samples taken from four locations in the Mississippi Delta showed above threshold levels of reniform and root knot nematodes. Sites were designed as a randomized and planted between May 3 and 10, 1995. Data was analyzed using an ANOV @ the .05 probability level. In-field monitoring was conducted using the Node Above White Bloom (NAWB) Mapping process, stalk and boll diameter evaluation and box mapping. Treatments included Temik @ 3.5 Lbs/A, 5.0 Lbs/A, 7.0 Lbs/A, 5.O + 10.0 (side-dress) Lbs/A, Gaucho seed treatment and Di-Syston @ 1 Pt/A.

Height of Gaucho and untreated checks was less than Temik or Di-Syston Treatments at all rating periods. Temik side-dress treatments indicated a significant growth response only in August. Total node evaluations showed untreated checks being equal to or greater than all other treatments. In all locations the untreated check fruited higher while little differences existed among the other treatments. Lateness was observed in the check across most locations. Gaucho was later numerically but did not differ statistically from the Temik treatments. Side-dress treatments in two locations showed a higher NAWB than other Temik treatments. NACB and percent open boll were significant in all Temik treatments over Di-Syston and the untreated check. Square retention showed little differences during June or July. Retention from side-dress treatments were higher only at one site. Boll retention was greatest in Temik treatments over the check and Di-Syston but only differed numerically from the Gaucho and Di-Syston. Only at one site did the side-dress treatment increase above at planting Temik treatments.

Caliper evaluations of the stalk increased from side-dress and at-planting Temik applications. Caliper readings of bolls at node 15 showed greater responses numerically or statistically from all Temik treatments. Side-dress treatments showed the greatest response while no differences existed between at planting treatments.

Temik treatments increased yield over Gaucho and the check but only numerically over Di-Syston. No yield differences existed between at planting Temik treatments while side-dress yields were greater.

Box mapping showed the greatest amount of cotton produced between nodes 9-13 and from position one for all treatments. Temik treatments produced the greatest amount of lint from main axis positions than Di-Syston. Di-Syston treatments produced a higher amount from aborted terminals and possessed more aborted plants. The Temik side-dress treatment produced a higher amount of cotton from nodes greater than 13.

Reprinted from the *Proceedings of the Beltwide Cotton Conference*
Volume 2:1188-1188 (1996)
National Cotton Council, Memphis TN