

**POST-EMERGENCE NEMATOCIDE
APPLICATIONS FOR COLUMBIA LANCE
NEMATODE MANAGEMENT**
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Abstract

Effects of applications of two nematicides on beneficial arthropods and Columbia lance nematodes were studied in DPL 5415 and DPL NuCOTN 33B during the 1997 and 1998 growing seasons. All treatments were applied to both cultivars. In 1997, plots consisted of 24 rows 75-ft. long in four randomized complete blocks. Temik 15G was applied in-furrow at planting at an insecticidal rate (3.5 lb./ac) and a nematicidal rate (7 lb./ac). Vydate C-LV was applied as a foliar spray (8 oz./ac) at 9-weeks-after planting followed by a second 8 oz./ac application 14 days later. In both years, beat cloth samples were used to determine predator populations and soil samples were taken three times to determine nematode populations. Results in 1997 indicated Vydate C-LV applications reduced all beneficials except spiders after the second application. The side-dress application of Temik 15G reduced only predators with piercing/sucking mouthparts (big-eyed bugs, minute pirate bugs). Spiders and lady beetles were not effected. There were no significant differences in mid-season or harvest Columbia lance nematode population densities in plots with Vydate. In 1998, plots consisted of 12 rows 50-ft. long in five randomized complete blocks. Two rates of Temik 15G were again applied in-furrow at planting (3.5 lb./ac and 7 lb./ac). Three post-emergence regimes were superimposed on each at-plant rate of Temik 15G at the 4-leaf stage: (1) a foliar application of Vydate C-LV (16 oz./ac), (2) a side-dress application of Temik 15-G (5 lb./ac), and (3) no side-dress application. Results showed that Vydate C-LV had a greater effect on beneficials with biting/chewing mouthparts (spiders, lady beetles) than on those with piercing/sucking mouthparts. Plots with side-dressed Temik 15G had reduced populations of beneficials with piercing/sucking mouthparts up to 4-weeks-after application. Applications of either Vydate C-LV or side-dressed Temik 15G did not affect mid-season or harvest Columbia lance nematode population densities.