

**THE EFFECTS OF NEMATOCIDES AND
COVER CROPS ON RENIFORM NEMATODE**
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Abstract

A number of nematicides including Temik 15%G, Telone II, and Vydate have been evaluated during the past 10 years for reniform nematode management in cotton. Temik 15G at the rate of 3.5 pounds per acre is the grower standard and has been compared against an untreated control in 23 trials. Yields were significantly greater ($P = 0.0001$) for Temik 15G at 3.5 pounds and averaged 1985 pounds of seed cotton compared to 1813 pounds of seed cotton for the control. Eleven trials were conducted to compare sidedress application of Temik 15G at 7.0 pounds per acre against the grower standard of Temik 15G at 3.5 pounds per acre. The sidedress application offered only a slight numerical increase (2505 pounds of seed cotton for Temik 15G at 3.5 pounds at planting and 7.0 pounds at 4-6 weeks) compared to Temik 15G at 3.5 pounds alone (2464 pounds of seed cotton). Five trials were conducted to evaluate Vydate applications of 0.5 pounds per acre at pinhead square against Temik 15G at 3.5 pounds per acre. The Vydate application offered only a slight numerical increase (1932 pounds of seed cotton for Temik 15G at 3.5 pounds & Vydate at 0.5 pounds and 1903 pounds of seed cotton for Temik 15G at 3.5 pounds). Ten trials have been conducted comparing Telone at 3 gallons per acre compared to Temik 15G at 3.5-5.0 pounds per acre. The addition of Telone at 3 gallons per acre was significantly better ($P = 0.005$) than Temik 15G alone with 2127 and 1881 pounds of seed cotton, respectively. Four cover crop regimes including crimson clover, wheat, subterranean clover, and native winter weeds were evaluated for their potential to reduce reniform nematode during the winter of 1999-2000. Populations of reniform nematode declined dramatically across all treatments with no clear advantage to any cover crop during this winter cycle.