

**THE INFLUENCE OF ANHYDROUS AMMONIA
AGAINST RENIFORM NEMATODE**

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Abstract

Anhydrous ammonia has been reported as having nematicidal properties but at rates much higher than normally used in cotton production (600-1400 pounds per acre compared to 100-120 pounds per acre used with cotton). There has been some speculation that nematode problems are not as great for producers who are still using anhydrous ammonia as their nitrogen source. Two nematicide trials were conducted in Morehouse Parish, Louisiana to evaluate the efficacy of anhydrous ammonia against reniform nematode in cotton at rates normally used by producers. Anhydrous ammonia was compared against 32% UAN as a nitrogen source and either treated with Temik 15G at 3.5-5.0 pounds per acre with and without Telone at 3 gallons per acre. Mid-season levels of reniform nematode were not influenced by nitrogen source. Telone did significantly reduce reniform populations at one of the two locations across nitrogen sources. Cotton yields were numerically higher in 3 of the 4 combinations of nitrogen source and averaged 1677 pounds of seed cotton for anhydrous ammonia and 1618 pounds of seed cotton for 32% UAN. The greatest yield increases ($P = 0.05$) were from the addition of Telone rather than nitrogen source although. These trials indicate only slight benefits from the use of anhydrous ammonia in fields infested with the reniform nematode.