

**COTTON SEEDLING DISEASE MANAGEMENT  
WITH RIDOMIL GOLD®**

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**Abstract**

Ridomil Gold is a new systemic phenylamide fungicide developed as a soil in-furrow treatment for cotton. Ridomil Gold is an isomer of Ridomil (metalaxyl). In-furrow fungicides in combination with seed treatments play a role in improving cotton seedling health and overall plant vigor. Ridomil Gold PC, applied in-furrow, in combination with Apron7 XL seed treatment will provide control of *Pythium spp.* and *Rhizoctonia solani* seedling diseases. These pathogens cause serious problems impacting seedling health, stand establishment, and yields. Cotton seedling disease control begins with an overall disease management plan which includes: good seed bed preparation, optimum planting dates, high quality seed, good variety selection, seed treatment, good field drainage, and use of an in-furrow fungicide at planting.

**Discussion**

Ridomil Gold has one of the best toxicological profiles of any plant protection product. Ridomil Gold is not a carcinogen, has a low order of acute and dermal toxicity, and is not a mutagenicity hazard. The environmental fate of Ridomil Gold is the same as that of Ridomil.

The establishment of a healthy stand of cotton is essential for good root development (lateral and tap roots) throughout the season. The value and consistency in performance of an in-furrow fungicide, in combination with a seed treatment has been substantiated over many years of testing. In-furrow treatments of Ridomil Gold PC or Ridomil Gold mixtures will control seed and seedling diseases of cotton (Graph 1). These products effectively control seed rots as well as pre- and post-emergence damping-off caused by *Pythium spp.* and *Rhizoctonia solani*. *Pythium spp.*, such as *P. ultimum*, primarily cause a pre-emergence damping-off and are influenced by cool, wet soil conditions. *Rhizoctonia solani* causes both pre- and post-emergence damping-off (sore-shin) and is influenced by warm, moist soil conditions. According to the Cotton Disease Loss Estimate Committee Report in the Proceedings of the Beltwide Cotton Production Research Conferences, crop losses due to seedling diseases range from 3%-9% from year to year across the major cotton production regions.

Ridomil Gold combinations are not phytotoxic to cotton and will effectively increase stand and yields. In a multi-year summary of field data from all cotton production areas, an average 61% stand improvement and 13.7% yield improvement was recorded with Ridomil Gold PC in-furrow (plus seed treatment) over seed treatments alone (Graph 1). In a 1997 field trial conducted in Mississippi on the variety >NuCotton 33B=, Ridomil Gold PC significantly increased stands and yields (by 608 lbs. of lint cotton/acre) over a hopper box treatment.

**Summary**

The benefits of using Ridomil Gold PC or Ridomil Gold mixtures include: reduces likelihood of replanting costs, reduces seed cost, diminishes labor costs, decreases energy costs, decreases additional costs for weed control due to replanting, allows growers to plant early to capitalize on soil moisture, provides longer control over time versus seed treatments and hopper box treatments alone. The Ridomil Gold combinations add value by producing healthier seedlings, a longer window of protection for young seedlings, and by improving yield and profit potential for an overall greater return on investment.

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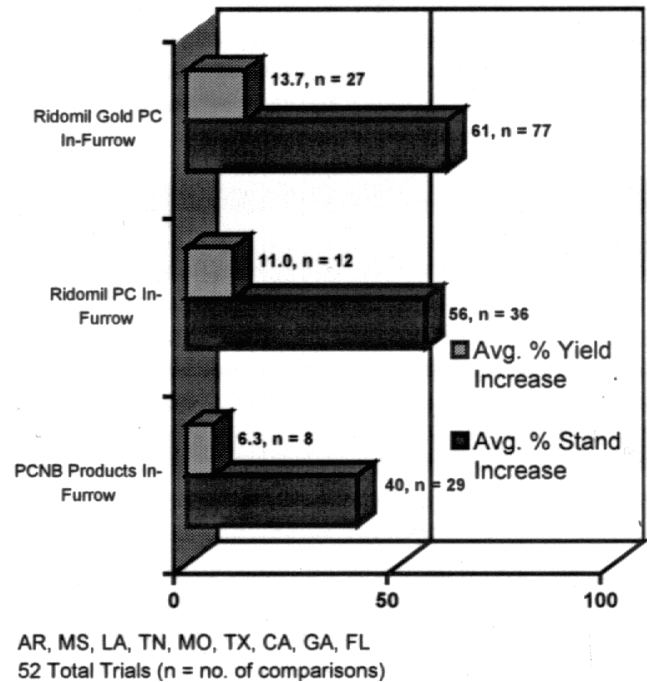


Figure 1. Cotton Seedling Disease Control with Ridomil Gold.