

**RYNAXYPYR® FOR CONTROL OF KEY PESTS IN COTTON PRODUCTION****Michael T Edwards****Richard M Edmund****J Dan Smith****Glenn G Hammes****Daniel W Sherrod****Lars D Swanson****DuPont Crop Protection****Wilmington, DE****Abstract****Rynaxypyr® Technical Info and Formulations**

The Chemical name for Rynaxypyr® is Chlorantraniliprole and is a Group 28 Insecticide (Ryanodine receptor modulators). Rynaxypyr® is labeled on more than 400 crops and is currently sold as:

Coragen® : 1.67 lb ai/gal suspension concentrate

Primarily vegetables and row crops - **Labeled for Cotton**

Altacor® : 35 % water-dispersible granules

Primarily fruit

Dermacor® X-100 : 5.21 lb ai/gal suspension concentrate

Rice Seed treatment formulation

Rynaxypyr® has excellent toxicology with the applicator PPE requirements of long-sleeved shirt, long pants, shoes plus socks. Rynaxypyr® is labeled in cotton for control of Armyworms (beet, southern, fall, western yellowstriped), Tobacco budworm, Cotton Bollworm, Saltmarsh caterpillar, and Cabbage looper. Soybean looper is labeled as suppression. Rynaxypyr® has low to no impact on Pollinators, Parasitoids and Predators. The primary route of exposure is ingestion, with rapid feeding cessation, general lethargy, regurgitation, muscle paralysis and death within 72 hrs.

The biological data in cotton includes 140 trials from 2002 – 2010 conducted in 13 States (Alabama, Arizona, Arkansas, California, Delaware, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia). The majority of trials were 3 -4 replicates, applied at 30 – 50 PSI and 6-15 GPA via backpack or tractor mounted sprayers.

Coragen® applied at 3.5, 5.0 and 7.0 fl oz/a resulted in 70-80% reduction in terminal, square and boll damage. Beet armyworm control ranged from 70-80% and Fall armyworm control at 60-80%.

In conclusion Rynaxypyr® is a novel mode of action, has favorable toxicological and eco-toxicological profile, is long-lasting, broad spectrum and has excellent crop safety. Rynaxypyr® is soft on beneficial arthropods and is an excellent fit into IPM and IRM Programs.