

Rice Seed Treatments For Insect Management

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Insecticidal rice seed treatments for control of an array of insect pests are excellent new tools for our farmers, especially in conservation tillage systems where vigorous rice plant stands are essential to successful production. Also, most farmers are decreasing their seeding rates due to the higher cost of seed and reduced recommended seeding rates of new varieties such as the hybrids. So, protection of this seed, afforded by the new insecticidal seed treatments, is a viable option for our rice farmers.

Currently, 2 insecticidal rice seed treatments are labeled---Dermacor X-100 and CruiserMaxx. Both provide excellent control of the rice water weevil (RWW). Dermacor X-100 also controls fall armyworm, South American rice miner and stalk borers while CruiserMaxx controls grape colaspis, aphids, thrips, chinch bug and other early season pests with piercing-sucking mouthparts. In addition, CruiserMaxx possesses 3 fungicides to protect seed against seedling diseases. A third insecticidal seed treatment, Nipsit INSIDE, is projected to gain a rice label within the next 2 years. Nipsit INSIDE was granted an EUP in the southern rice-producing states for the 2011 growing season. Our data show Nipsit INSIDE provides excellent control of RWW.

In 2010, all 3 seed treatments were evaluated for RWW control at the Texas AgriLife Research and Extension Center at Beaumont. All experiments were designed as a randomized complete block with 4 replications. Plot size was 18 ft X 7

rows, 7 inches between rows. Each plot was surrounded by a metal barrier. Seed was treated and plots drill-planted followed by flushing until 3 weeks after rice emergence when a flood was applied. At about 3 and 4 1/2 weeks after flood (this is when RWW populations are the highest during the season), 5, 4 inch diameter X 4 inch deep mud cores from each plot were removed and processed for RWW larvae and pupae. Each core contained at least 1 rice plant including roots. At maturity, plots were harvested to obtain yields.

In a planting rate study with Dermacor X-100 applied to Cocodrie seed at 1.75 fl oz/cwt, RWW control in plots planted at 60, 90 and 120 lb/A was excellent with yield increases of 888, 993 and 1100 lb/A, respectively. In another planting rate study, Cruiser 5FS, which is the insecticidal component of CruiserMaxx, was applied to Cocodrie seed at 3.3 fl oz/cwt followed by planting at 25, 50 and 75 lb/A. RWW control was 81, 91 and 95%, respectively. Yield increases were 616, 876 and 807 lb/A, respectively. In a third study, Nipsit INSIDE applied at 1.9 and 3.3 fl oz/cwt Cocodrie seed planted at 80 lb/A, provided 98% control of RWW with yield increases of 684 and 1048 lb/A, respectively.

These data show the importance of controlling RWW. Some farmers do not opt to control RWW because the above-ground damage is often difficult to observe. Insecticidal seed treatments are effective and farmer-friendly. Δ

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