

Evaluation of Nipsit Inside® Seed Treatment for Rice Water Weevil Control in Mississippi

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The insecticidal seed treatments, Cruiser 5FS and Dermacor X-100 were labeled for commercial use on rice in 2010. They provided good control of rice water weevil where they were used in Mississippi. A new insecticidal seed treatment, Nipsit Inside, will be available from Valent in the next couple of years. Prior to its commercial release, research needs to be conducted to determine the relative efficacy of Nipsit Inside against rice water weevil compared to the other commercially available seed treatments.

Experiments were conducted during 2009 and 2010 at the Delta Research and Extension Center in Stoneville, MS to determine the efficacy of Nipsit Inside against rice water weevil. Plots were sampled 3-4 weeks after permanent flood establishment by taking 4 inch diameter core samples from the center of each plot. Two samples were taken from each plot. Core samples were washed through a ¼ inch screen into a 40 mesh sieve. The sieves were placed in a 5% salt water solution and the numbers of rice water weevil larvae were counted. At the end of the season, plots were harvested and rough grain yields were determined.

Samples taken from 12 experiments in 2009 and 2010 showed that Nipsit Inside provided 0-100% control of rice water weevil larvae. Similar to the other seed treatments, Nipsit Inside did not provide a benefit when rice water weevil densities were low. At moderate and high densities, Nipsit Inside provided rice water weevil control similar to Cruiser. In terms of yield, Nipsit Inside provided a mean yield benefit of 9 bushels/A averaged across the 12 trials. Because it is not commercially available at this time, no price has been established for Nipsit Inside. Therefore, an economic benefit analysis cannot be conducted. The probability of seeing a net economic return with Nipsit Inside will most likely be similar to Cruiser and Dermacor.

