

## EFFICACY OF XRM-5162 AGAINST NUTSEDGE (*CYPERUS SPP*) IN SMALL PLOT TRIALS

Tony Weiss<sup>1</sup>, John Busacca<sup>2</sup>, John Mirusso<sup>3</sup> and Suresh Prabhakaran<sup>2</sup>

<sup>1</sup> Dow AgroSciences LLC, Brandon, FL 33511

<sup>2</sup> Dow AgroSciences LLC, Indianapolis, IN 46268

<sup>3</sup> Mirusso Enterprises, Boynton Beach, FL 33437

XRM-5162, a new soil fumigant under development from Dow AgroSciences, was tested against methyl bromide/chloropicrin (50:50) (MB/CP) in small plots for control of nutsedge (*Cyperus spp*). Two trials were conducted in Florida, one in Ft Pierce and the second in Ruskin. The objective of both trials was to determine the efficacy of XRM-5162 at different rates under films against nutsedge. Both trials compared XRM-5162 against the commercial standard MB/CP at 224 Kg per treated hectare (pth) under film.

Treatments in the Ft Pierce trial included XRM-5162 at 224 and 448 Kg pth under film A, XRM-5162 at 112, 224 and 336 Kg pth under film B, MB/CP at 224 Kg pth under film B, MB/CP at 448 Kg pth under film A and an untreated check. Fumigants were applied March 25, 2008 with four replications per treatment in an RCB experimental design. Nutsedge counts were made 7, 15, 27 and 44 DAA.

Treatments in the Ruskin trial included XRM-5162 at 224 and 336 Kg pth under film B, XRM-5162 at 224 and 448 Kg pth under film A, MB/CP at 224 Kg pth under film B, MB/CP at 448 Kg pth under film A and an untreated check. Fumigants were applied April 10, 2008 with four replications per treatment in an RCB experimental design. Nutsedge counts were made 11, 20 and 28 DAA.

At Ft Pierce, both fumigants provided better control of nutsedge under film B than under film A, however, the two MB/CP treatments had the fewest nutsedge overall throughout the length of the evaluation period. XRM-5162 at 336 Kg pth under film B was as good as the MB/CP treatments through the 27 DAA evaluation period but the number of nutsedge in this treatment increased at 44 DAT whereas the two MB/CP treatments maintained very low counts.

Similar to results at Ft Pierce, both fumigants in Ruskin provided better control of nutsedge under film B than under film A. Nutsedge counts for XRM-5162 at 224 and 336 Kg pth under film B were both significantly lower than the untreated check but not as good as the two MB/CP treatments at all three evaluation periods.

Results of these tests demonstrate that XRM-5162 can provide good control of nutsedge under film B. Further testing is being conducted to refine use rates and efficacy of XRM-5162 against nutsedge, nematodes and soil borne fungal pathogens.