

1755 Metaflumizone, A New BASF Insecticide For Lygus Management in Cotton

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Metaflumizone, a new active ingredient under development by BASF, belongs to the chemical class of insecticides, (semicarbazones), which blocks the voltage-dependent Na⁺ channel of susceptible insects (SCBI, IRAC MoA Group 22B).

Metaflumizone EC formulation was superior to the SC formulation for control of Lygus. Metaflumizone EC at 280 gai/ha was comparable to acephate at 560 – 1120 gai/ha for Lygus control. Mortality was slower to occur than with acephate, but cotton yields were equal. Therefore Lygus damage to the crop had ceased following the application of metaflumizone.

As part of a Lygus Integrated Pest Management (IPM) program, treatments including metaflumizone at 280 gai/ha were: metaflumizone fb acephate fb dicotophos, metaflumizone + cyfluthrin fb acephate fb dicotophos, thiamethoxam fb metaflumizone, acephate fb metaflumizone + cyfluthrin. The standard for comparison is thiamethoxam fb dicotophos fb acephate. Yields taken from the various Lygus programs containing metaflumizone were comparable to the standard.

Metaflumizone is being developed in a Lygus Integrated Pest Management (IPM) program. Metaflumizone offers a new mode of action, resistance management, and less impact to beneficial insects.