

COTTON DEFOLIATION AND DESICCATION RESULTS WITH AIM™ AND AIM™ TANK MIXTURES

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Abstract

Aim™ is a new PPO chemistry developed by FMC Corporation that has been registered as a herbicide on several grain crops as a reduced risk chemistry. The compound has several favorable attributes as a crop production tool, including fast activity, no soil carryover potential, and additive activity with several other herbicides. Aim™ is well into development as a post-directed herbicide and as a harvest aid in cotton. Development activities over the last 4 years have examined potential harvest aid uses for Aim™ in cotton at various rates and with several different potential mixture partners. Results have shown excellent additive activity for defoliation, desiccation, and regrowth control with Aim™ combined with key cotton harvest aid products, as well as good activity with Aim™ standalone in single or sequential applications. Development of Aim™ as a cotton harvest aid will continue with further studies to optimize activity for an expected registration and launch in the near future.

Introduction

Aim™ cotton harvest aid and cotton post-directed herbicide development has been an ongoing effort by FMC Corporation for several years with indications of great potential as a harvest aid as a standalone or mixture product in this use pattern.

A summary of FMC efficacy studies from across the Cotton Belt demonstrated that Aim™ provides cotton defoliation, desiccation, and regrowth performance comparable to that of registered standards, and additive activity to standard harvest aids for faster defoliation and in some cases superior final outcome.

Materials and Methods

Trials were conducted across the cotton belt on both stripper and picker cotton varieties to evaluate Aim™ effects on the standard cotton harvest aid parameters of defoliation, desiccation, green leaves remaining, open bolls, and regrowth in terms of total percentage values per plot. Data from head to head trials at 6 locations were summarized and means generated to compare the identical treatments at each location.

Results

Summarized means for the various parameters evaluated show Aim™ delivers excellent defoliation and desiccation performance in cotton that is comparable to standards and provides additive activity to some products, and faster defoliation with the majority of the mixture partners tested. Sequential application of Aim™ was shown to be an ideal use pattern for the chemistry, superior to sequential application of other materials.

Discussion

Aim™ results from several years of testing for cotton harvest aid testing shows great potential for this use and should provide a new and valuable tool in cotton production. Faster leaf defoliation in mixtures will give growers potential of expediting cotton harvest and in some cases increasing ultimate performance of present harvest aid standards in this critical use pattern.