

CONTROL OF GLYPHOSATE RESISTANT VOLUNTEER CORN IN GLYPHOSATE RESISTANT SOYBEAN WITH EXPERIMENTAL CLETHODIM FORMULATIONS. Jeffrey D. Smith, Kevin M. Perry, John A. Pawlak and Mark J. Kitt, Field Market Development Specialist, Product Life Science Manager, Product Development Specialist and Field Market Development Specialist, Valent U.S.A. Corporation, Walnut Creek, CA 94596.

The vast majority of soybeans produced in the United States are glyphosate resistant. As glyphosate resistant corn acres increase, volunteer glyphosate resistant corn can be troublesome in rotations with glyphosate resistant soybeans. As a result, the use of conventional herbicides such as clethodim, in tank-mixes with glyphosate is becoming increasingly important.

Clethodim is widely used in soybeans for control of annual and perennial grasses as well as volunteer corn and cereals. However, clethodim performance is dependent on the addition of crop oil concentrate (COC) or methylated seed oil (MSO) for optimal uptake and translocation within susceptible grass species. The use of COC or MSO is not recommended with most glyphosate applications due to antagonism concerns. Therefore, as a continuation of the clethodim isomer project, Valent U.S.A. Corporation initiated a research program to develop a clethodim formulation to meet the uniqueness of this use pattern. The objective of this research was to: 1) eliminate dependence on COC or MSO, 2) be flexible in tank-mixes with various glyphosate formulations (with and without built-in adjuvant systems), and 3) provide control equal to or superior to the commercial standard of clethodim (Select 2 EC) plus COC or MSO. Valent U.S.A. Corporation has developed V-10137; an enhanced clethodim formulation that meets those criteria.

Internal and external data indicates that only the adjuvant required by the glyphosate formulation is needed to achieve excellent control of volunteer glyphosate resistant corn when tank mixed with V-10137. Data also indicates that V-10137 does not antagonize glyphosate performance. V-10137 will be formulated as an emulsified concentrate (EC) containing 1.0 pound of clethodim per gallon. A limited launch of V-10137 will be initiated in 2004 within certain geographies.