7-5-2004

Soybean aphid insecticide and herbicide tank mixing

Marlin E. Rice
Iowa State University, merice@iastate.edu

Soybean aphid insecticide and herbicide tank mixing

Abstract
There are questions regarding the value of tank mixing an insecticide for soybean aphids with the application of glyphosate for weed control in glyphosate-resistant soybeans. This seems like a logical approach to reduce cost, however it is probably impractical because of timing and application issues. The optimum timing for soybean aphids has historically been between mid- or late July and early August; the optimum timing for glyphosate in soybean is when the weeds are less than 4-inches tall which is most likely to be in June.

Keywords
Entomology

Disciplines
Agricultural Science | Agriculture | Entomology | Weed Science

Soybean aphid insecticide and herbicide tank mixing

There are questions regarding the value of tank mixing an insecticide for soybean aphids with the application of glyphosate for weed control in glyphosate-resistant soybeans. This seems like a logical approach to reduce cost, however it is probably impractical because of timing and application issues. The optimum timing for soybean aphids has historically been between mid- or late July and early August; the optimum timing for glyphosate in soybean is when the weeds are less than 4-inches tall which is most likely to be in June. It is unlikely that insecticides applied in June will have residual activity long enough to cause significant soybean aphid suppression.

However, such early season applications may increase aphid populations by reducing the numbers of natural enemies. Additionally, insecticide performance is enhanced with increased pressure and small droplets while glyphosate performance is better with decreased pressure and large droplets size to prevent drift problems. What this means is that tank mixing an insecticide in June or early July with glyphosate will probably result in an unnecessary expense (the insecticide), may aggravate aphids by killing off beneficial insects, and could create spider mite problems, particularly in western Iowa. Until research results are available to support early applications of tank mixed insecticides and glyphosate, don't take this approach unless soybean aphids are at the economic threshold.

This article originally appeared on page 83 of the IC-492(14) -- July 5, 2004 issue.
