



INSURANCE INSECTICIDE TREATMENTS FOR SOYBEAN APHIDS - WHY WE ARE CONCERNED ABOUT THIS MANAGEMENT STRATEGY.

Kenneth Ostlie, Extension Entomologist, University of Minnesota
Bruce Potter, IPM Specialist SW MN, University of Minnesota
David Ragsdale, Entomologist, University of Minnesota

Everyone dreads another pesticide trip across the field. You may be planning or have been encouraged to apply an insecticide with an upcoming glyphosate application, without regard for aphid populations in the field. While this strategy may occasionally work out, there are several potential problems that can arise from this strategy.

1) Cost

There is *no* data to suggest that very low aphid populations hurt yield. Early applications are more likely to be re-colonized and require re-treatment.

Claims of insecticide residual activity lasting a month, or longer, have little factual basis, particularly when applications are made to rapidly growing soybeans.

2) Resistance

The more often soybean aphids are exposed to insecticide the more quickly insecticide resistant populations will develop. More than one product could lose effectiveness at once, depending on the mode of resistance. An unpleasant wrinkle to soybean management would be aphids that won't die.

3) Increasing populations of soybean aphid, or other arthropod pests (e.g. spider mites) by removal of beneficial species.

Removal of beneficials (predators and parasites) can have unexpected consequences. Yes, this really does happen! Imagine how quickly newly arrived aphids reproduce when you've already removed the

beneficials for them. When we do this with cages that exclude predators, aphid populations go from 10 to more than 1000 in a little more than a week.

4) Compromises leading to poor insect and/or weed control.

Ideal nozzle, water volume and pressure selection for insecticide and glyphosate applications are not the same. Herbicide and insecticide timings should be based on when to apply to the target pest (weed or aphid) to be most successful.

You are responsible for managing *your* crop for a profit. There is nothing illegal about applying an insecticide labeled for soybean when aphid populations are below threshold. However, insecticide applications do have consequences in the environment. We wish only to point out that there are potential short and long term risks when insecticide applications are made without regard to pest populations.