PURPLE SPOTTED CROP DESTROYER

Adults of this insect appear in soybean fields on the same date each year. After mating in the field, females lay eggs on the newly emerging soybean leaves. Scientists know that they can lay eggs only on the first leaves to open. When the larvae hatch from the egg, they feed on the leaves. If beat cloth samples show 10 young larvae per sample, the infestation can be severe enough to reduce yield. Larvae can feed for 3-4 weeks before pupating. Larvae of the Purple Spotted Crop Destroyer are attacked by predatory insects in the order Hemiptera and parasitic wasps. Those larvae that survive attack burrow into the ground when feeding is completed. They pupate in the soil. The species overwinters as pupae and adults emerge the next year. There is only one generation each year.

A mating disruption pheromone is available.
An insecticide, Blammo, is quite effective against the larvae, but is also toxic to natural predators and parasites.
There are no insecticides that are effective against the egg or pupal stages.
There are no insecticides that are practical for use against the adult stage.

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PINK STRIPED PANTRY PEST

Larvae of this pantry pest feed on grains, especially white flour and corn meal. If infestations are severe, larvae can chew out of one package and into another package. When feeding is completed, larvae crawl down to the floor and pupate on the baseboards. Newly emerged adults fly to the ceiling of the pantry where they find their mates. Females lay eggs on paper bags or cardboard boxes. Scientists have found that plastic surfaces are too slick for the eggs to stick. There are several generations each year. In fact, the generations overlap each other – at any time you can find adults, larvae and pupae in the same pantry.

A mating disruption pheromone is available.
Insecticide fumigants are registered for use against insects in grain bins.

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GIANT BLUE & GREEN TURF EATER

Adults of this species fly into the state in late spring of each year. Scientists know that they migrate from the south. Females lay eggs in thin patches of lawns at the base of the stems. The species prefers the turf variety, “Pop Eye.” Upon hatching, nymphs crawl up the stem and feed by piercing the stem with their mouth parts. This feeding not only depletes nutrients from the plant, but it also introduces a plant virus that causes Giant Blue & Green Mosaic Disease (GBGMD for short). Symptoms of the

disease are bright red splotches on turf in the shape of ever widening circles. The circle centers are often bare or have dying turf. Ground beetles are common predators of the Giant Blue & Green Turf Eater. Each beetle can kill and eat more than 50 nymphs in a day.

There are no pesticides effective against the virus that causes GBGMD.
There is an insecticide that is effective against the Giant Blue & Green Turf Eater, but it is also toxic to ground beetles.
There is a variety of turf resistant to GBGMD called “Olive Oil.”
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TAKE OVER WEED

This tall roadside weed is a broadleaf invasive species that was introduced from Europe in the 1900's. It crowds out vegetation planted for erosion control, such as Purple Crown (also a broadleaf). Broadleaf herbicides, the least expensive form of weed control, are effective against Take Over Weed, but will also kill Purple Crown. Mowing is an expensive form of weed control and can only be done when Take Over Weed is taller than Purple Crown.

Biological control is effective against Take Over Weed. Scientists found two species of insects, a moth and a beetle, on Take Over Weed in Europe and these insects can now be bought in the USA. Larvae of the moth feed on young leaves and the beetles eat seeds of Take Over Weed. But use of these plant eating insects is the most expensive type of weed control.

To make matters worse, Take Over Weed is a very attractive plant with bright yellow flowers. Nurseries sell Take Over Weed to homeowners. Seeds from home gardens are easily carried to roadsides where they start new patches.