How Do Farmers FIGHT Weeds and Pests?

Weeds compete with soybeans for soil nutrients and make harvest difficult. Insects can seriously damage soybean plants. Illinois soybean growers have to control these pests to produce as high of a quality crop as possible. They have several options.

Cultivation Popular For Weed Control

One of the best ways to control weeds is to remove their roots from the soil, just as you would pull weeds in a vegetable garden. But with fields spanning several hundred acres, this is not a viable option. Soybean growers use tillage equipment to cultivate the field – loosening the soil surface while removing weeds. This practice not only kills the weeds, but it helps break up the hard crust that forms on the soil surface so moisture from rains can be more readily absorbed by the plants. According to a 1990 survey by Iowa State University, 84 percent of soybean growers cultivate their fields to control weeds.

Crop Rotations Help

Rotating a field from the production of one crop, to another helps control both weeds and pests. According to the 1990 Iowa State University study, 63 percent of Iowa soybean growers say they use crop rotation as a weed control measure, while more than 50 percent use it as a pest control strategy.

Although farmers try many natural or "alternative" pest control strategies, sometimes they must use herbicides and insecticides to control weeds or insects that could hamper their crop's production.

One popular application method is to incorporate herbicides pre-emergence; that is, apply them at planting or before the seed has germinated and the plant has broken through the soil. This method of early weed control kills weeds that would compete with the fragile soybean seedlings before a farmer could cultivate the field.

The Iowa State University study found that less than 1 percent of the state's soybean acres were treated with an insecticide in 1990. The survey also showed that 97 percent of Iowa's soybean acres received at least one herbicide application.

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