

HOW FARMERS FIGHT WEEDS AND PESTS

Weeds compete with soybeans for soil nutrients and available sunlight, making harvest more difficult and potentially reducing the quality of the harvested grain. Insects can also damage soybean plants, reducing yield and reducing the quality of the harvested grain by introducing diseases that destroy or discolor it.

Soybean growers have a new tool to help them fight weeds and insects ... BIOTECHNOLOGY.

Scientists have developed cost-effective techniques to modify the genetic makeup of the soybean to make it resistant to herbicides that would normally kill the plant. These herbicides provide soybean growers with a low-cost method of controlling weeds and reducing soil erosion through reduced tillage practices.

Because the herbicides used today are applied at very low rates and help reduce soil erosion into our rivers and streams, they are called “environmentally friendly.”

Advances in science will soon produce soybean plants that also deter insects from feeding on the roots and on the developing grain. This will reduce the amount of pesticides that would normally be applied to control the damage caused by insects. Insects feeding on the roots of the plant or on the developing grain can lower yield by as much as 50 percent. Lowering or eliminating the amount of pesticides used in producing each acre of soybeans is also considered “environmentally friendly.”

Crop rotation is a sure way to reduce the plant’s exposure to insects and diseases.

Diseases and insects that attack soybeans normally do not attack other major crops such as corn. Rotating a field from the production of soybeans to corn and then back to soybeans again is another way to reduce the risk of damage from insects and diseases. This is called “crop rotation” and is a method of pest control practiced by most soybean growers.

By growing soybeans in a field every other year instead of every year, the producer can reduce the buildup of certain diseases and pests that harm soybeans. One such pest is the soybean cyst nematode, a pest that feeds and reproduces on the root of the soybean plant. Soybean producers must practice crop rotation to help control this yield-robbing pest, because trying to control it with chemicals is not cost effective.

