



CROP PROTECTION PLANS KEEP U.S. SOYBEANS SUSTAINABLE

U.S. soybean farmers manage the challenges presented by weeds, insects and diseases with experience, knowledge and approved technology. To avoid yield loss and, ultimately, loss of income, farmers deploy crop protection practices and products, as needed, throughout the growing season.



Left uncontrolled, weeds alone can cost corn and soybean growers more than \$43 billion annually.¹ With a well-developed plan and careful management, farmers can prevent problems, control emerging problems quickly and avoid causing harm to the environment.

By developing a crop protection plan, soybean farmers give themselves the opportunity to consider and prepare for more sustainable and lower-cost controls before the crop is planted. Crop protection plans include tools necessary to protect the crop and their livelihood.

Weeds compete with a soybean crop for water and nutrients, so controlling them is essential to allow the soy crop to reach its full potential. Cover cropping is an important practice that helps U.S. soybean farmers control their weed populations. Cover crops and the residue they leave behind at termination can block sunlight from the bare ground, making it harder for weeds to thrive.

Insect control also benefits from planning and preparation. Basic **crop rotation** in most U.S. soy growing regions prevents a large measure of insect damage. But **scouting for and understanding the economic**



1. Kansas State University. "Left uncontrolled, weeds would cost billions in economic losses every year." ScienceDaily. www.sciencedaily.com/releases/2016/05/160516130720.htm.

threshold of soybean pests is an important management tool. Discovering insect problems early allows intervention at a less intense and less costly rate.



Development of disease-resistant soybean varieties by researchers and informed **seed selection** by farmers are tools that proactively suppress disease outbreaks in a soybean crop. Today's soybean seed varieties are selected specifically for their tolerance to specific soybean diseases. Farmers use their fields' histories to choose seed varieties that handle the appropriate disease pressure for that field, thus limiting the need for a commercial treatment.

Soybean farmers can control weeds by applying the chemistry for which their selected seed was developed. The development of these seed and weed control combinations means fewer broad applications and more focused application rates.

When **herbicide and/or pesticide application** is necessary, U.S. soy farmers and their service providers are trained to:

- 1 Reduce drift potential** by only spraying under specified weather conditions, lowering spray boom height, reducing sprayer speed, using proper nozzle sizing and using drift reduction agents.
- 2 Use multiple modes of action** in a pesticide spray to get the best control, limit the chance of resistance and limit trips across the field.
- 3 Read and follow label instructions.** Following label use instructions is required by U.S. law and allows farmers to get the greatest efficacy out of sprays without the consequences of overuse.

Crop protection plans play an essential role in not only protecting soy production from several threats, but also helping soy farmers provide needed protections in the most sustainable and climate-friendly manner possible.

Judicious use of crop protection practices by U.S. Soy farmers plays an essential role in the productivity and production of a consistent supply of high-quality soybeans. These practices are also a part of U.S. Soy farmers long-term impact towards many of the U.N. Sustainable Development Goals (SDG), especially SDG 2—Zero Hunger. Specifically, SDG Target 2.4, says, *“By 2030, ensure sustainable food production systems and **implement resilient agricultural practices** that increase **productivity and production**, that help **maintain ecosystems**, that strengthen capacity for **adaptation to climate change**, extreme weather, drought, flooding and other disasters and that **progressively improve land and soil quality.**”*



About U.S. Soybean Export Council (USSEC): Soybeans are the United States' No. 1 food and agricultural export. The U.S. Soybean Export Council (USSEC) is focused on building preference, improving the value, and enabling market access for the use of U.S. Soy for human consumption, aquaculture, and livestock feed in 82 countries across the world. USSEC is a dynamic partnership of U.S. soybean producers, processors, commodity shippers, merchandisers, allied agribusinesses, and agricultural organizations; and connects food and agriculture industry leaders through a robust membership program. USSEC is farmer-funded by checkoff funds invested by the United Soybean Board, various state soybean councils, the food and agriculture industry, and the American Soybean Association's investment of cost-share funding provided by U.S. Department of Agriculture's (USDA) Foreign Agricultural Service (FAS). To learn more, visit www.ussec.org and www.ussoy.org, and engage with us on USSEC's LinkedIn, Twitter, Facebook, and U.S. Soy's LinkedIn, Twitter, Facebook, Instagram and YouTube.

