## U.S. soybean farmers use cover crops to improve soil & protect water





Cover cropping is a management practice in which fields are planted not with the specific goal of a harvested crop, but to provide ground cover that benefits the farm and its surrounding ecosystem. In a cover crop system, the field is seeded into a mix of plants whose whole purpose is to protect and enhance the soil after the production crop has been harvested. These can include species such as cereal rye, triticale, oats, vetch, clover, turnips and radishes.

## COVER CROP PRACTICES

There's no one size fits all scenario. Cover crops can be developed to support the soil type and cropping plan for each field. When it is time for the next production crop to go in, the cover crop is terminated, having done its job of building the soil and improving the health of the field.



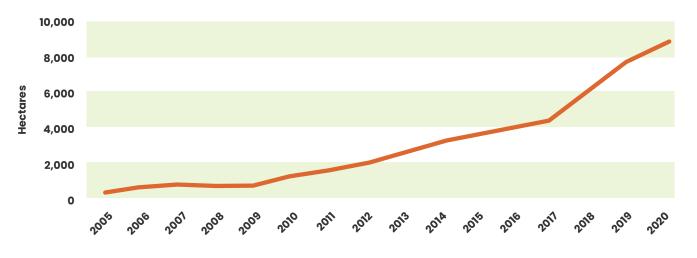
The first benefit of a cover crop is **protecting the soil** by preventing runoff and slowing water movement across a field. The crop canopy also minimizes the impact of raindrops on the soil, which can break down soil structure and make it easy for the particles to move off-site. The root system of a cover crop also **improves soil structure**, and, above ground, the crop canopy slows and even prevents weed growth. The additional organic matter that a cover crop leaves in the field helps enhance water retention and availability. A 1% increase in organic matter means an additional water holding capacity of 19,000 gallons per acre.<sup>1</sup>

Legume cover crops fix nitrogen that benefits a subsequent grass crop such as corn. As a "trap crop," a cover crop will store nutrients from manure, mineralized organic nitrogen or underutilized fertilizer until the following years' crop can utilize them, reducing nutrient runoff and leaching.

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## **COVER CROP IN KEY SOYBEAN STATES<sup>2</sup>**

Data from the Top 10 Soybean Producing States, which Account for 77% of Soybean Production



The crop diversity provided by cover crops encourages more activity from and habitat for diverse pollinators, birds and wildlife. Other cover crops benefit livestock that might graze the field in the winter.

When combined with conservation tillage, precision agriculture and thoughtful crop input management, cover crops are giving U.S. soybean farmers the tools they need to meet climate change and build resilience while remaining profitable and providing essential food, feed and fuel products for global use.



The increasing adoption of cover crops by U.S. Soy farmers helps maintain ecosystems that progressively improve soil and land quality. 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 The 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 90 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 <a href="https://www.ussec.org">www.ussec.org</a> and engage with us on USSEC's LinkedIn, X, Facebook, and U.S. Soy's LinkedIn, X, Facebook,



<sup>1</sup> Letourneau, Benjamin T. "Soil Health." Natural Resources Conservation Service. https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soils/soil-health

<sup>2 &</sup>quot;Conservation Practices and Land Use Data Download (02/21)." Natural Resources Conservation Service. https://www.nrcs.usda.gov/wps/portal/nrcs/rca/national/technical/nra/rca/text/.