

The future of cover crops

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Winter cover crops are an important component of nutrient cycling, soil cover and organic matter content. Although its benefits are well documented, cover crop use in farming systems is relatively low. Research has shown that time and money are the two primary reasons why farmers are hesitant to adopt the technique. Developing innovative and cost-effective crop cover systems could increase the use of winter cover crops.

A scientist with the USDA Agricultural Research Service (ARS) and colleagues investigated the potential use of self-seeding winter cereal [cover crops](#). Results from the study were published in the July-August 2011 issue of the [Agronomy Journal](#).

Scientists measured the amount of green groundcover self-seeded winter cover crops produced after soybean harvests in the fall of 2007 and 2008. The study revealed that the cover crop's growth through self-seeding was most consistent using a wheat cover crop and mechanical [seed dispersal](#) before the soybean harvest.

"The significance of this research, in addition to lowering the cost and risk of establishing cover crops, is to extend the ecological functions that cover crops perform beyond their normal termination dates," explained Jeremy Singer, a researcher from USDA-ARS.

Organic crop producers can benefit from self-seeding cover crops because of the potential for enhanced weed suppression without disturbing the soil. Cover crops also increase nutrient retention and

reduce soil erosion, which can improve water quality.

Research is ongoing at the National Laboratory for Agriculture and the Environment to find cover crop systems that minimize risk to crops and maximize their conservation benefits.

More information: www.agronomy.org/publications/...-4/aj11-0045-pub.pdf

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