Over the 20 years that Ralph Upton has planted cover crops on his Illinois farm, he has built up the health of his soil and reduced his need for fertilizers and pesticides on his corn and soybean crops. However, he knows they can still do more. Allowing the cover crop to develop biomass and roots right up to spring planting would yield even more benefits, but for Upton, who practices no-till, planting corn into the heavy green residue can be difficult.

So, he used a SARE grant to experiment with building a precision, multi-cover crop species seeder and partnered with local educators and researchers to test it. The advantage of such a precision seeder would be the ability to plant a mix of cover crop species at one time, but to place some species within corn rows and others between rows. The species that develop heavier residue would go between rows, hopefully making it easier to plant again the following year.

Upton found that precision-planted cover crops are effective and maintained his corn yields. His work prompted interest among Illinois farmers and crop advisors. This precision-planting system could allow for a more flexible transition from a conventional tillage system to a no-till cover crop system, according to Upton.

For more information on this project, see www.sare.org/projects, and search for project number FNC15-1018. 

SARE’s four regional programs and outreach office work to advance sustainable innovations to the whole of American agriculture.
SARE Grants in Illinois

SARE has awarded a total of 132 grants in Illinois since 1988.

- 19 Research & Education Grants
- 63 Farmer/Rancher Grants
- 12 Youth Educator Grants
- 5 Youth Grants
- 7 Professional Development Grants
- 19 Research & Education Grants
- 20 Graduate Student Grants
- 6 On-Farm Research Grants

SARE’s Impact

- 53 percent of producers report using a new production technique after reading a SARE publication.
- 79 percent of producers said they improved soil quality through their SARE project.
- 64 percent of producers said their SARE project helped them achieve higher sales.

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SARE sustainable ag coordinators run state-level educational programs for Extension and other ag professionals, and many help grant applicants and recipients with planning and outreach. Visit www.northcentralSARE.org/illinois to learn more.

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