SARE: Advancing the Frontier of Sustainable Agriculture in...

Arkansas

Project Highlight: Maximizing Cover Crop Use in High Tunnels

Cover crops are becoming a vital tool in soil management, yet vegetable growers who use high tunnels may decline to plant them inside structures due to a variety of factors. In the warm indoor environment, cover crops could potentially provide habitat for overwintering pests. Economically, the benefits may not seem clear since there are fewer off-season periods for a cover crop to fill and growers in such a capital-intensive system may not want to use valuable ground for a crop that has no immediate return.

Funded by a SARE grant, University of Arkansas graduate student Luke Freeman sought to determine the optimum timing for planting cover crops in Southern high tunnels to minimize the negatives and maximize the benefits. Cover crops can be beneficial in high tunnels for reducing nitrogen fertilizer use and improving soil quality. Since local growers stated that mid-November through mid-February was the least productive season, Freeman researched four winter cover crops, followed by summer tomatoes and fall broccoli, during that time period.

He found that winter peas contributed a greater amount of biomass nitrogen than all other treatments. This led to a 48 percent increase in mean tomato yield compared to the control. Sharing these results gives Southern high tunnel vegetable growers a better understanding of the benefits of cover crops.

For more information on this project, see www.sare.org/projects, and search for project number GS14-136.

SARE in Arkansas
www.southernsare.org/arkansas

$6.1 million in total funding

89 grant projects

(since 1988)

For a complete list of grant projects state by state, go to www.sare.org/state-summaries

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

SARE has awarded a total of 89 grants in Arkansas since 1988.

- 34 Research & Education Grants
- 8 Farmer/Rancher Grants
- 16 Graduate Student Grants
- 11 On-Farm Research Grants
- 15 Professional Development Grants
- 5 Community Innovation Grants

For detailed information on SARE projects, go to www.sare.org

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Contact Your SARE State Coordinator

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.

SARE is funded by the USDA's National Institute of Food and Agriculture (NIFA).

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