

Advancing Cover Cropping to a Purpose-driven, Site-specific Model

Sarah Hirsh^{1,2}, Haley Sater¹, Shannon Dill¹, James Lewis¹, Jennifer Rhodes¹

¹University of Maryland Extension; ²shirsh@umd.edu

While cover crops are widely planted in Maryland, farmers often use the same cover crop regardless of the site characteristics or crop rotation. The goal of this project was to provide technical and financial support to farmers that are willing to try-out innovative cover crop species or management on a field-scale, with the purpose of addressing site-specific agronomic goals. These cover crop fields, in turn, serve as a demonstration site and platform for education and conversations within the farming community to spread the knowledge, acceptance and adoption of a more varied and purposeful suite of “accepted” cover crop practices in Maryland.

Educational approach and outputs

- Extension educators consult with collaborating farmers to plan cover crops (see box “Cover Crop Planning Principles”)
- Collaborating farmers receive financial support to plant up to 3 different cover crop systems on up to 150 acres
- Collaborating farmers complete a Social Network Analysis survey to inform Extension educators on how cover crop knowledge is gained and shared among farmers
- Collaborating farmers participate in learning circles, during which they discuss cover crops and learn from one another
- Collaborating farmers host community field-days on their farms to share their innovative cover cropping approaches with the broader farming community
- Extension educators develop factsheets, case-studies, videos, a website and other educational materials that describe innovative cover cropping practices, including practical considerations, partial budget analyses, and farmer experiences



Changing the way we cover crop

Farmer-to-farmer learning pathway



Collaborating farmers able to try an innovative cover cropping practice with reduced risk

Collaborating farmers gain experience and confidence with the cover crop

Collaborating farmers share their experiences with neighboring farmers through informal conversations and at educational events such as field-days

Extension-to-farmer learning pathway



Through working with collaborating farmers, Extension educators improve cover crop planning process and learn from farmer experiences

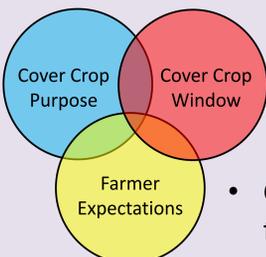
Extension educators learn from Social Network Analysis survey how cover crop knowledge is gained and shared among farmers

Extension educators able to develop more accurate and useful educational materials and disseminate knowledge in the community using farmer-preferred methods

Other farmers have confidence to try innovating cover cropping practices

Cover Crop Planning Principles

- Diagram existing crop rotation and identify windows in which to insert cover crops; think about adjusting cash crop rotation to expand windows
- Brainstorm the top 1-2 purposes for the cover crop for the given field
- Discuss and see photo examples of how cover crops will look and perform, being realistic about the cover crop potential within the management parameters
- Concurrently thinking about cover crop purpose, window, and farmer expectations, select the best cover crop species and management practices



Preliminary Results

- Eleven farmers participated in planning and planting cover crops tailored to their field specific situation and goals
- Four collaborating farmers have held or are planning field-days at their cover crop fields to share experiences and successes with the agricultural community
- After our first field-day, all survey respondents indicated the program as good or excellent overall
- All field-day survey respondents reported that as a result of the field-day, they have an “average” or “a lot” likelihood to evaluate various cover cropping options rather than just blanket applying “a cover crop” on the farm; plant cover crop mixes; and plant a cover crop that will be more likely benefit their following cash crop