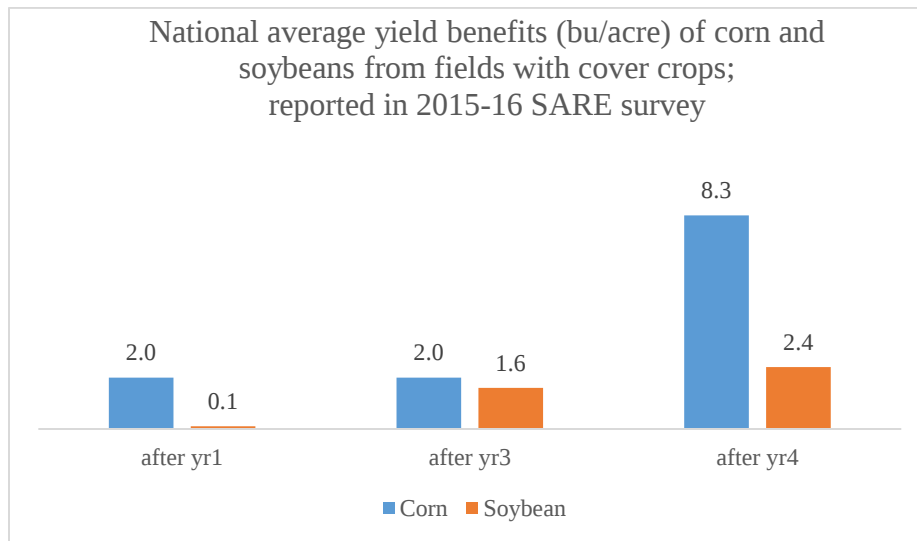


An Economic Perspective on Soil Health Management Practices

Naveen Adusumilli and Syam Dodla

Conservation agencies have pushed cover crops and other soil-health practices as measures that would provide a suite of benefits such as an increase in crop yield, a decrease in fertilizer use, soil and nutrient runoff, and improvement in overall soil quality. Yield takes the majority of the benefits of the cover crops and adds them up for the net improvement in profitability. National cover crop survey indicates an increase in crop yields following cover crops.



Source: SARE cover crop Survey

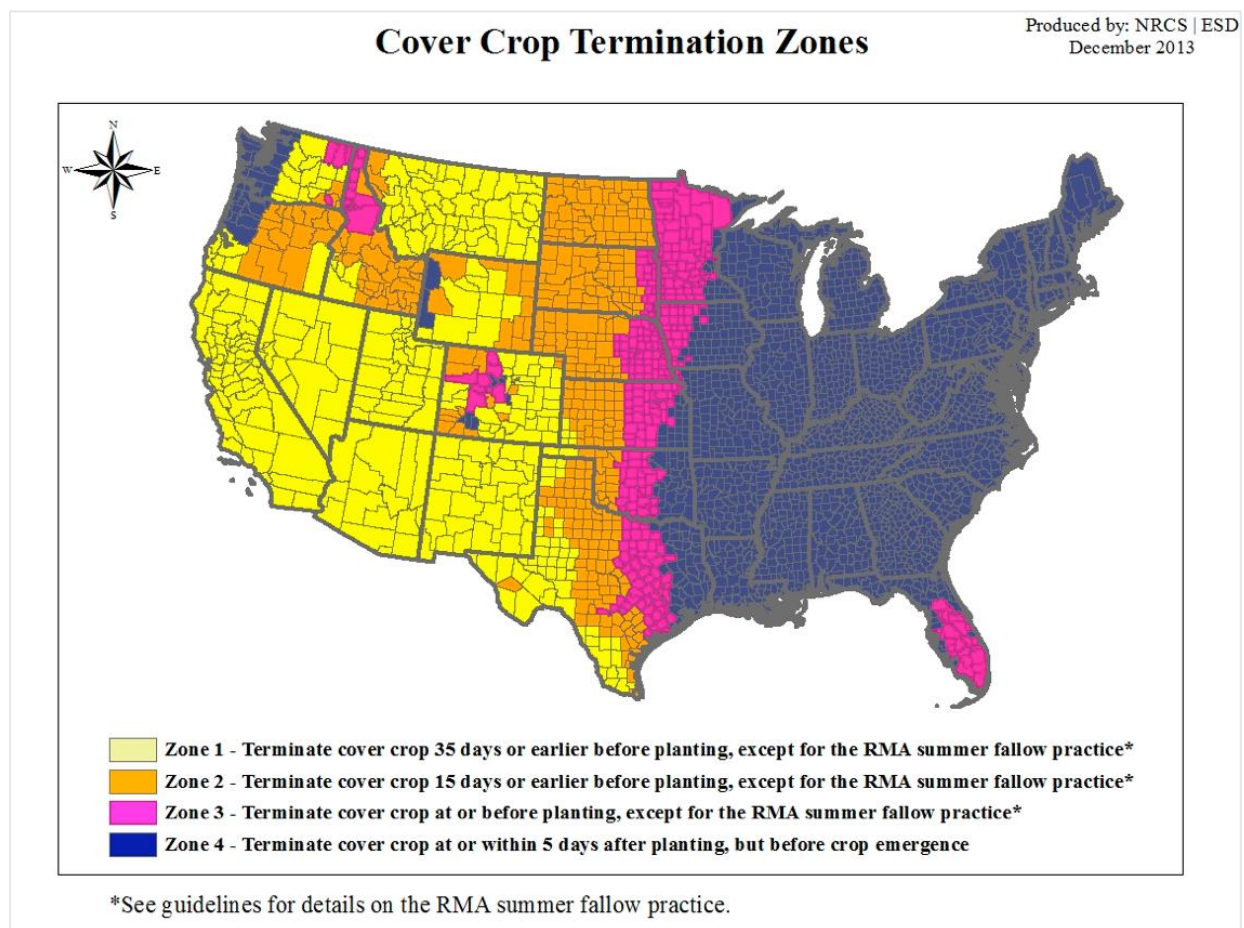
Voluntary conservation program, Environmental Quality Incentives Program (EQIP), where farmers can enroll to receive financial assistance on a per acre basis to adopt conservation practices. Financial assistance for EQIP qualified practices helps minimize the economic burden of adoption of management practices by farmers who are unsure of the potential of such practices in providing an improvement to on-farm productivity and soil health. Often, conservation practices can be combined to receive a higher financial assistance per acre. The financial assistance program often runs on a reimbursement model but some farmers can be eligible for up to 50 percent advance payment to cover their costs.

EQIP funding for most popular soil health practices and alternatives for selection of these practices are shown below

Cover crop	No-till	Reduced Till	Total assistance
\$60-\$70/acre; up to five years	\$13/acre; up to three years	\$14/acre; up to three years	
✓			\$300/acre for 5yrs
	✓		\$39/acre for 3yrs
		✓	\$42/acre for 3yrs
✓	✓		\$339/acre for 3yrs then \$300/acre for 2yrs
✓		✓	\$342/acre for 3yrs then \$300/acre for 2yrs

Other practices such as “Nutrient Management Plans” provide financial assistance; however, the plan includes variable rate application of fertilizer, a nitrification inhibitor, and soil nitrate testing and/or plant tissue testing to estimate soil available nitrogen. In other words, a more rigorous adoption of practices and analysis to show that the practices are providing the anticipated benefits. The financial assistance to this category is approximately \$23 per acre.

Often times, questions arise regarding the adoption of certain practices and how their adoption is tied to crop insurance. Sustainable Agriculture Research and Education (SARE) cover crop survey results indicate the most important factor that would motivate farmers to adopt cover crops is a tax credit and/or a discount on their annual crop insurance premium. Although a discount on crop insurance premiums is not available, NRCS, Risk Management Agency, and Farm Service Agency have encouraged such practices. Guidelines were developed to help farmers manage practices such as cover crops. For cover crops, Louisiana is in “management zone 4”, where cover crops grown under non-irrigated conditions need to be terminated at or within five (5) days after planting of main or insured crop, but before crop emergence.¹



Picture adopted from NRCS Cover Crop Termination Guidelines Report.

¹ The document can be found at https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1263099.pdf

Soil management practices can provide enormous benefits. LSU AgCenter, NRCS, and other conservation agencies have long urged farmers to include such practices as part of their overall farm management goals. Preservation of land productivity while making more efficient use of natural resources is a prerequisite for reducing farm-related economic burden and promoting sustainable practices to future generations of farmers.

For further questions or comments

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