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Not as Easy as Rye: Alternative Strategies to Increase Cover Cropping in Vermont.

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Abstract:

Increased erosion is often seen in corn silage fields because the entire plant is removed from the field leaving little to no crop residue during the off-season. Integrating winter cover crops into the corn silage production scheme would reduce movement of P to surface waters by minimizing soil erosion. Unfortunately it is not as easy as rye, as farmer acceptance of this practice in Vermont has been marginal. The objective of this project was to demonstrate and validate several cover cropping strategies and provide this information to growers so that they would have the greatest chance at adoption and success. The following cover cropping strategies were evaluated on 8 farms in the target watersheds: 1) cover crop planting dates that produce sufficient ground cover (>30%) to prevent erosion; 2) planting earlier maturing corn and compare with yields of late season corn; 3) interseeding corn with cover crops during the growing season; and 4) incorporating cover crops with various tillage tools. Through the on-farm demonstrations producers found that planting cover crops by mid-October resulted in sufficient ground cover (>50%) to prevent erosion. Broadcasting seed before a light incorporation strategy resulted in ground cover greater than 50%. Interseeding had varying degrees of success. Seeding before or after deep tillage (i.e. moldboard plows) resulted in poor cover crop establishment. Earlier season corn performed similarly or better in yields compared to longer season corn. Farmers shared their cover cropping experiences at 4 field days. Several of these farmers documented an increase in corn yields and decrease in fertilizer and fuel costs as a result of cover cropping. However, it was obvious from this project that proper cover cropping practices must be implemented to reap these benefits to the maximum potential.

Impact Statement:

Over the two year period, The Farmer's Watershed Alliance (FWA) and UVM Extension increased the acres of effective cover crops in the St. Albans and Missisquoi watersheds of the Lake Champlain Basin. The acreage of cover crop increased from approximately 100 acres in 2006 to more than 2500 acres in 2008. This increase in cover cropping was largely due to on-farm demonstrations, workshops, applied research, and other local partnerships developed amongst the farming community. A total of 8 on-farm demonstrations were implemented by farmers of the FWA. Of the 8 farms that hosted demonstrations, 4 held on-farm workshops to discuss their cover crop practices and results. A total of 225 participants attended on-farm workshops to learn about cover cropping. As a result of cover crop success among demonstration farms, 23 farms implemented cover cropping on their farm in 2008. In addition, local watershed organizations and state government increased cost share funding for cover cropping in these critical areas. New strategies, increased outreach and new financial incentives were developed and resulted in an increase of cover cropped acreage in these impaired watersheds.

Category: Agricultural BMPs

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