

Tools of the Trade



photo: Lowery Creek, Richard Cates

The "Trade" is planning and implementing farming systems that:

DELIVER yields of commodity crop

DELIVER on-farm and offfarm benefits to soil health and water quality

SECURE long-term stability of the farm and its resources

Continuous Living Cover practices are tools that can be used in combination with each other and other tools to:

- Deal with nutrient loading concerns
- Deal with soil erosion concerns
- Deal with N leakage concerns
- Achieve improved soil health on the farm
- Improve resilience and robustness of the farm
- Maintain profitability, short-term and long-term

Goal	Continuous Living Cover Practices
Reduce nutrient (N and P) loading into surface waters	 Extended crop rotation with perennial forage Strategic placement of perennial strips within fields Riparian buffers Grassed waterways
Reduce water erosion	 Extended crop rotation with perennial forage on slopes above 5% Permanent perennial forage or agroforestry planting on slopes above 14% Strategic placement of perennial strips within fields Cover crops on the ground in spring & fall

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Goal	Continuous Living Cover Practices
Reduce wind erosion	 Windbreaks /Shelterbelts Hedgerows Cover crops Winter grain and perennial forages in rotation
Reduce N leakage to surface or ground waters	 Cover crop used as "catch crop" Extended crop rotation with perennials and small grains
Improve soil health	 Extended crop rotation with perennial forage Integration of livestock Cover crops Complex cover crop mixtures
Improve farm resilience	 Stacking of multiple CLC practices Consistent use of CLC practices
Maintain profitability	 Use the shortest rotations on the flattest land Add agroforestry plantings that produce a cash crop Use extended rotations verified as profitable by University research Integration of livestock

Continuous Living Cover practices are effective for meeting the above goals, but their effectiveness is even greater when multiple CLC practices are stacked on a single farm; and when stacked with other types of practices to control soil erosion, N leakage, and nutrient loading into surface waters. These may include:

- Reduced tillage
- Drainage management
- Terracing and contouring
- Bioreactors