Benefits and Opportunities For Growing 3rd Crops

A project of Rural Advantage

What is a 3rd Crop?

A 3rd Crop is a crop other than corn or soybeans. Due to the dominance of corn and soybeans throughout the Midwest we call it a 3rd Crop because it would be the third crop grown after corn [first] and soybeans [second]. It is not intended to be one particular crop but rather a wide diversity of crops that could be incorporated into a farmers cropping system.

Why is Rural Advantage Interested in 3rd Crops?

To improve the water quality of the Blue Earth River and its tributaries! Changing the corn/ soybean cropping system to include other crops, especially perennials, has the potential to improve the water quality of the Blue Earth River- and all of it's tributaries- to a level that will meet local and state water quality goals within the next ten years. 3rd Crops will build soil health, reduce nitrogen leakage, reduce pesticide use, minimize soil erosion, reduce the speed that water moves across the landscape and adds diversity. 3rd Crops can be especially effective when we target them to sensitive areas that are prone to polluting; when they build soil health through improved crop rotations; and they reduce pest populations due to crop diversity.

Background Information

The Greater Blue Earth River Watershed area includes the Watonwan, the Blue Earth and the LeSueur rivers and all of their tributaries. This 2.3 million acre area in south central Minnesota and north central Iowa is dominated by a corn and soybean cropping system. The area contributes approximately ½ of the pollution load to the Minnesota River, yet it is only 20% of the area geographically. Nitrogen loss from the region contributes significantly to hypoxia in the Gulf of Mexico. Pollution contributions are from both rural and urban sources.

The main pollution concerns are sediment, nutrients [nitrogen and phosphorous] and pathogens. One of the reasons the pollutant loading is so high is due to the agricultural land use. The soil types we have are fine clays. Once suspended in water, they stay suspended until the water stops flowing and they can settle out. Phosphorous quickly attaches to clay particles and when the soil erodes from the landscape, it carries phosphorous with it. This area receives almost two times the amount of rainfall as the western portion of the Minnesota River. Corn requires adequate nitrogen to produce a crop but excess nitrogen can readily 'leak' through the soil. An intensive drainage infrastructure can quickly transport these nutrients to nearby surface

waters. Major pathogen contributions can be from untreated wastewater, polluting feedlots or improperly applied manure.

Over the past thirteen years BERBI member SWCD's have put over $4,500,000 of conservation practices on the ground. Approximately 2/3 of this has been cost-share practices such as terraces, waterways, stream bank restoration, diversions and ag waste. It is estimated that these projects have reduced the pollution load by about 9%. These efforts are important because they are site specific and address pollution that is occurring.

On the bigger watershed scale, these efforts alone will not get us to our water quality goals. If we are serious about cleaning up the river, then we need to take implementation to the next level and work for cropping system change. This is a long term objective that can lead toward environmental sustainability of the region.

Examples of 3rd Crops

Oats, alfalfa, wheat, barley, cuphea, campelina, buckwheat, amaranth, pearl millet, wheatgrass, native mixes for bioenergy, switchgrass, medics, kochia, perennial flax, lupines, milkweed, hazelnuts, elderberries, blueberries, grapes, native plants, wildflowers, curly willow, pussywillows, Christmas trees, bittersweet, dogwoods, hybrid poplar, native plants for seed production, grazing/ pasture, etc..

Non crop 3rd Crops include eco-tourism, nitrogen farming, water storage, carbon sequestration, hunting leases, recreation leases, wind energy, etc..

Keys to Establishing 3rd Crops

If we are going to be successful at establishing 3rd Crops into the landscape we must have markets for the crops people are willing to raise and we must have a diversity of 3rd Crops. In many cases the 3rd Crop would be a perennial and would involve smaller acreages within the farm system. 3rd Crops will be "working" lands rather than "retired" land. Each farm family should be able to receive some economic return from their 3rd Crop. This will promote viable family farms and sustainable communities.

Contact:
Rural Advantage
507.238.5449
www.ruraladvantage.org

Rural Advantage
Promoting the Interconnection of Agriculture, the Environment & Rural Communities