

County Agent News
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Sustainable Agriculture

Sustainable Agriculture- What does that mean? It means a lot of different things to different people. But it all boils down to: Can you continue to farm the same way you are currently doing? Or, do you need to keep adding resources. Do you need to keep adding additional fertilizer to maintain the same yields, do you need to add additional cash, more land, more labor, or other resources just to maintain the same farm operation and standard of living. For any farm or business to be sustainable it must be profitable and that profit cannot come at the expense of the available resources. Those resources include people, cash, land and other assets.

Last week I had the opportunity to participate in a Food, Fiber, and Fuel tour sponsored by the North Central Sustainable Agriculture Research & Education (SARE) organization.



Several of the stops related to the use of cover crops. The Black Leg Ranch near Menoken uses season long cover crops in their rotations as a soil builder, winter grazing, and a source of fertility for the following crop. They have cut expenses for their beef cow operation by \$200 per head through winter grazing of cover crops instead of putting up and feeding hay. By grazing the cows on the fields through the winter all livestock manure stays directly on the land to become a resource for the next year's crop. Soil nutrient analysis shows no need for any commercial fertilizers the year after the season long cover crop and winter grazing. Yields on those fields continually equal or surpass other fields on the farm where commercial fertilizers are applied. The long season cover crops have also benefited wildlife and the ranch has added agritourism and hunting as additional revenue sources allowing next generation family members to return to the ranch.

Another stop was at the Burleigh County Soil Conservation District Demonstration Farm where cover crops have also been used for soil health building and crop fertility. Corn yields following cover crops are matching or exceeding those of commercially fertilized fields. Soil health is a long term commitment. Neither the Black Leg Ranch nor the Burleigh SCD farm went from conventional production with commercial fertilizers to needing none in a single year and both continue to soil test and continually adapt their systems for improvement. There is no magic cover crop mix that will work for everyone in every situation but two keys that seems to be in most cover crop success stories are the importance of having plants growing as long as possible for each season and having multiple species and plant types in the mix. A single species cover crop is better than no cover crop but adding additional species increases the chances of successful establishment and maximum biomass production.

Another stop which highlights what a producer can do by understanding the role of diversity in nature and how important crop rotations are was Blains Best Seeds. Blaine Schmaltz farms near Rugby and produces certified organic seed in a no-till system. Many people will tell you that organic production and no-till cannot work together and would just be a big weed patch. Blaine's clean fields and certified seed production prove otherwise. He uses carefully studied crop rotations for fertility and weed control often no-till seeding into standing cover crops which

are then mowed or seeding into fields where cover crops have been mowed or rolled to terminate their growth so they do not become “weeds” in the crop.