

Organic No-Till – The Ultimate Cropping System For Soil Health And Farm Sustainability



Project # FNC08-738

Prairie Farm Pilot Project

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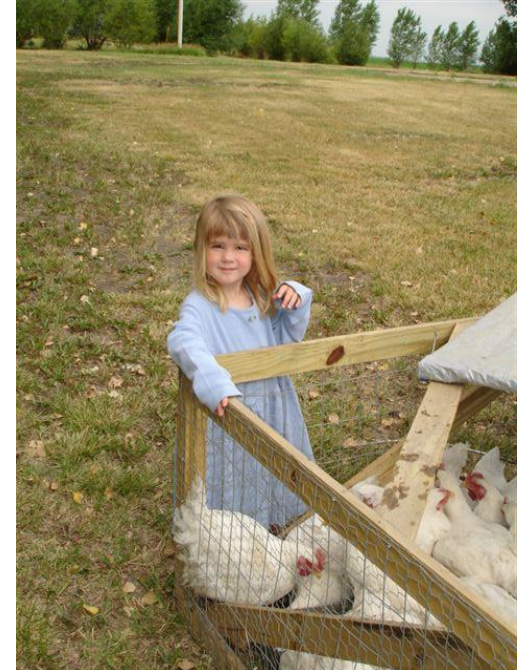
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Our Vision

Is to restore our farms to sustainable, organic, integrated crop/livestock farming units.

We hope to accomplish this with a bio-diverse, holistic, synergistic, organic, sustainable farming plan which is:

**Healthy Soil
=
Healthy Plants
=
Healthy Animals
=
Healthy Food
=
Healthy People**



“The care of the Earth is our most ancient and most worthy and after all our most pleasing responsibility. To cherish what remains of it and to foster its renewal is our only hope.” –Wendell Berry



He has told you, O man, what is good;
And what does the Lord require of you?

But to do justice, to love kindness, and to walk humbly with your God. - Micah 6:8





Dick Lovestrand
Linda & Dick
Grotberg

Project Partners



Jack Olson



Mark Gehlhar

The Project

This project involves research into weed control in organic no-till cropping systems.

Treatments include crop rotation, grazing, cocktail mix cover crops, synergistic companion crops, double seeding, crimping/rolling biomass before no-till seeding, and solid plant row crops.

How are we ever going to figure out all of this.....



Our goal was to establish a base line of our soil's health in order to both compare and measure the success of the project. Many hours went into the planning process. We searched for a soil scientist who had time and was willing to think "out of the box". Our excitement could not be contained when that team finally came together.

The Team

Susan Samson-Liebig, Soil Quality Specialist, USDA-NRCS, Bismarck, ND

Laura Overstreet, Soil Microbiologist, NDSU, Fargo, ND

Fred Aziz, Area Soil Scientist Area II, USDA-NRCS, Jamestown, ND

Lance Duey, Soil Scientist, MLRA 55 A & B, Devils Lake, ND

Earnie Jenson, MLRA 55A&B Soil Survey Leader, Devils Lake, ND

Ted Alme, State Agronomist, USDA-NRCS, Bismarck, ND

Kris Nichols, Soil Microbiologist, USDA-ARS, Mandan, ND

Advisors: Mark Liebig, Soil Scientist, USDA-ARS, Mandan, ND, Dick and Linda Grotberg, Wimbledon, ND, Steve Zwinger, Research Agronomist, NDSU Carrington, ND, David Podoll, Master Organic Farmer, Fullerton, ND

NORTH DAKOTA ON-FARM SOIL QUALITY MONITORING PROJECT, Grotberg Farm



Organic No-till Integrated Pest Management

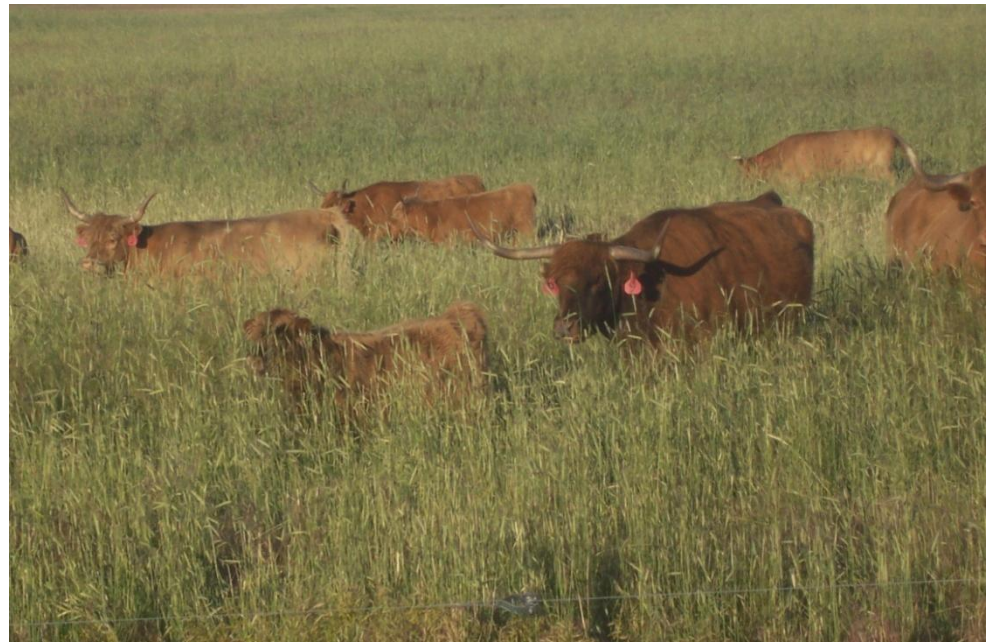
Hard Red Spring Wheat – 22 Acres

- May 1-4 Graze 100 head (cows, calves, yearlings)
- May 15 Double seed 1.75 bu HRSW, 1# each turnip & radish, 5# lentils per acre
- May 16-20 Graze weeds before crop immerges (100 hd)
- Good weed control - harvest 25 bu/acre in spite of drought



Herd Grazing Was More Successful For Weed Control In Grain Crops Than Mowing





Cows Grazing
Summer Cover
Crops

We worked with USDA NRCS and Extension to help organic farmers understand the Organic EQIP Initiative and the Conservation System Plan core practices



Bethany Prairie was in one of the first sign up rounds and is using and promoting many of the core practices



- The Olson's used multi-species cover crops for the first time as part of their new USDA Organic EQIP contract



Mark Gehlhar signed an EQIP contract for additional fencing and shallow water trenching. He was able to increase his hay annual hay production from 300 bales in 2009 to almost 500 bales in 2010.

Enjoying What We Do

