USDA

United States Department of Agriculture

Natural Resources Conservation Service

Conservation Connections:

A Beginning Farmers Guide to Conservation Support, Funding & Resources

Natural Resources Conservation Service

nrcs.usda.gov/

Agenda

- Conservation Connections: Project overview
- Introductions: NRCS staff & Farmer Connectors
- NRCS overview
- Program & resource basics
- Farmers share NRCS experiences
- Upcoming Events
- Questions and Conversations with NRCS Staff

Conservation Connections

Historically Underserved Farmers

- **Beginning Farmer and Rancher**
  - Not operated a farm/ranch for more than 10 years
- **Limited Resource Farmer**
  - With direct or indirect gross farm sales not more than the current indexed value in each of the previous two years, and
  - Who has a total household income at or below the national poverty level for a family of four, or less than 50 percent of county median household income in each of the previous two years.
- **Socially Disadvantaged**
  - American Indians or Alaskan Natives
  - Asians
  - Blacks or African Americans
  - Native Hawaiians or other Pacific Islanders
  - Hispanics
- **Veteran**

Introductions:
NRCS Agency Staff & Farmer Connectors

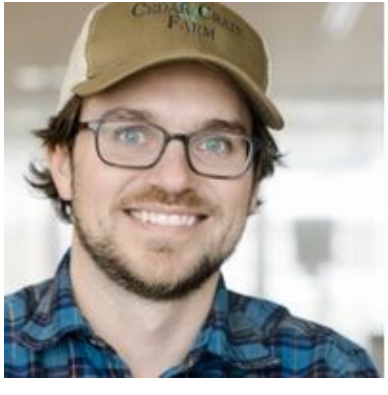

Moses Momanyi


Brett Olson


Sarah Lindblom


Noreen Thomas


Kathy Zeman


Dan Zimmerli


John Beaton

Natural
Resources
Conservation
Service

nrcs.usda.gov/

What is the Natural Resources Conservation Service?

The Natural Resources Conservation Service (NRCS) is the primary federal agency authorized to work on private lands to help landowners protect their soil, water and other natural resources.

- Technical agency of USDA
- Voluntary technical and financial assistance for farmers and landowners

Natural Resources Conservation Service

nrcs.usda.gov/

An Agency Established in 1933

In 1933, the Soil Erosion Service (SES) was established to fight soil and wind erosion, dust storms, and loss of cropland. In September 1935, the name was changed to the Soil Conservation Service (SCS), and later became the Natural Resources Conservation Service in 1994.

Dr. Hugh Hammond Bennett, "father of Soil Conservation" and first Chief of SCS is pictured below with Herbert A. Flueck, Minnesota's first State Conservationist for NRCS.

M.M. Keliher Dr. H.H. Bennett H.A. Flueck

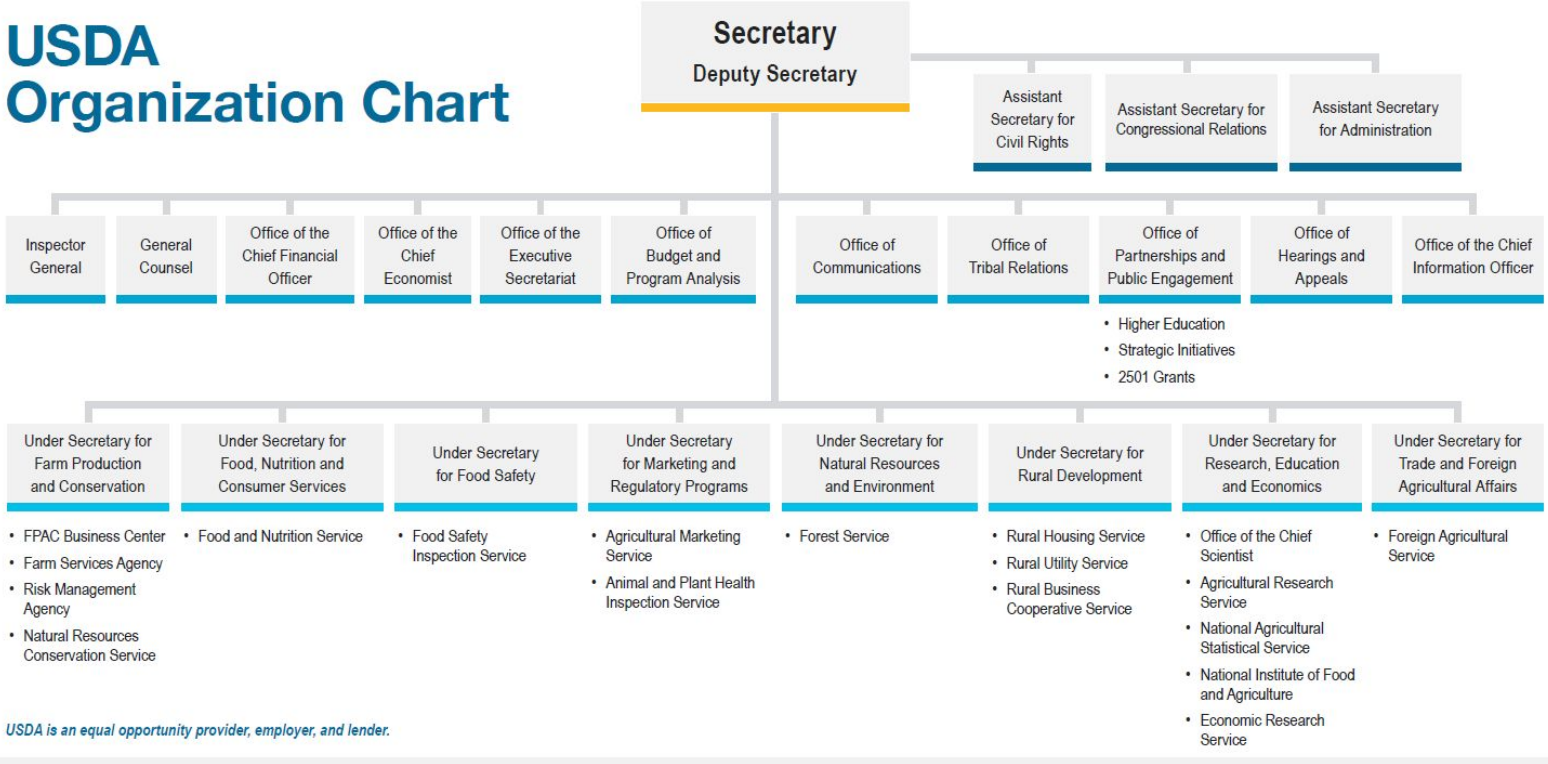
NRCS and USDA

In 1935, the Soil Conservation Service became an agency of USDA to work with farmers on new ways to farm that would save the soil.

Civilian Conservation Corps camp in Coon Valley, Wisconsin

USDA
U.S. DEPARTMENT OF AGRICULTURE

USDA Organization Chart



USDA is an equal opportunity provider, employer, and lender.

UPDATED 10/01/20 This organization chart displays the names of USDA offices, agencies, and mission areas. Each office, agency, and mission area is placed within a cell connected by lines to show the structure and hierarchy (Under Secretary, Deputy Secretary, or Secretary) for which they fall under. An HTML version that lists USDA Agencies and Offices and USDA Mission Areas is also available on usda.gov. The Secretary's Memorandum 1076-031 was signed August 12, 2019 effectuating a change to Rural Development.

ural
ources
nservation
Service

nrcs.usda.gov/

USDA United States Department of Agriculture

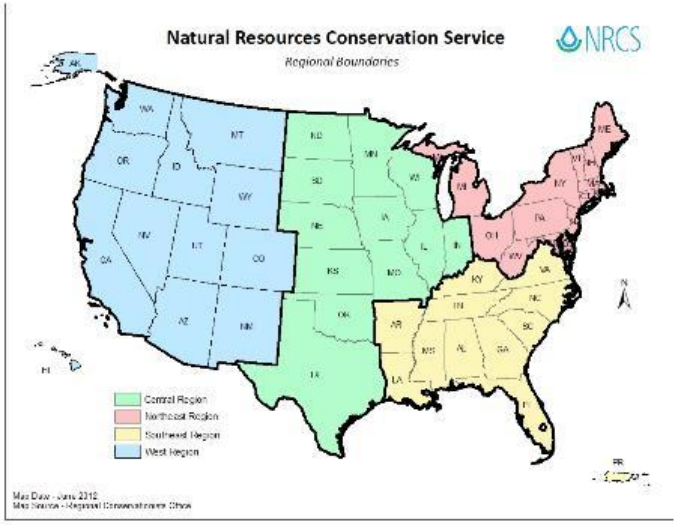
Natural Resources Conservation Service

Chief (acting)
Kevin Norton

Associate Chief (acting)
Ron Alvarado

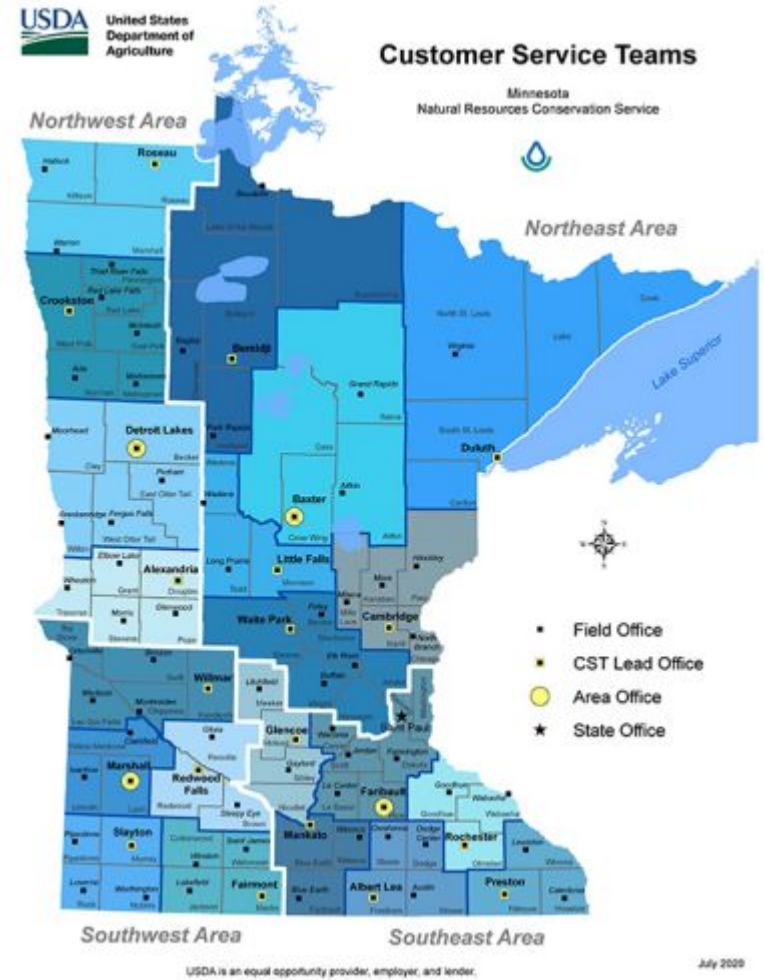
Regional Conservationist (Central)
Salvador Salinas

State Conservationist Minnesota
Troy Daniell



Natural Resources Conservation Service

nrcs.usda.gov/



Natural Resources Conservation Service

nrcs.usda.gov/

NRCS MN

Glencoe Customer Service Team

Servicing McLeod, Meeker, Nicollet, & Sibley Counties

State Conservationist

TROY DANIELL

Assistant State Conservationist-Field Operations

STEVEN COLE

Customer Service Team Lead

JACOB STICH

Soil Conservationist

Soil Conservation Technician

Natural Resources Conservation Service

nrcs.usda.gov/

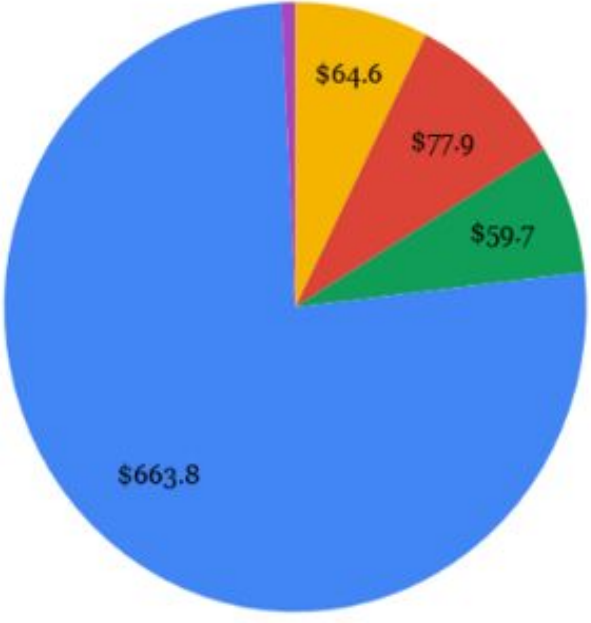
Farm Bill Legislation

Basis for most USDA and NRCS conservation programs and policies.

Current Farm Bill
Enacted on December 20, 2018

Projected 10 Year Farm Bill Spending in Billions

- *Title I: Commodity Programs*
- *Title XI: Crop Insurance Subsidies*
- *Title II: Conservation Programs*
- *Title IV: Nutrition*
- *Everything Else: $6.7B*



Natural
Resources
Conservation
Service

nrcs.usda.gov/

FY2020 Annual Report - MN

PROGRAM	CSP GCI	ACEP WRE *Closed*	RCPP EQIP	RCPP CSP	CSP	EQIP
CONTRACTS SIGNED	27	5	62	44	223	611
ACRES ENROLLED	1,076	486.9	5,010.5	45,445.7	190,558.40	119,291.80
$ OBLIGATED	$96,905.00	$1,612,672.66	$1,548,756.77	$6,638,803.00	$22,605,385.10	$27,543,383.76

FY2020 ANNUAL REPORT

Natural Resources Conservation Service

nrcs.usda.gov/

NRCS Mission & Vision Statement

Our Mission: We deliver conservation solutions so agricultural producers can protect natural resources and feed a growing world.



Our Vision: A world of clean and abundant water, healthy soils, resilient landscapes, and thriving agricultural communities through voluntary conservation.



Natural Resources Conservation Service

nrcs.usda.gov/

NRCS

Priorities

- Implement and deliver the 2018 Farm Bill to our nation's farmers, ranchers, and private forests landowners.
- Streamline our processes and program delivery to best serve our customers.
- Better understand our customer needs and improve overall customer service.
- Increase internal mentoring, training opportunities, and experiences that collectively involve staff, customers and partners.
- Expand focused outreach efforts to increase agency awareness among populations of Young, Beginning, Small, Veteran and Historically Underserved Farmers and Ranchers.
- Elevate the importance of soil health across our agency's outreach and communication efforts to further enhance and promote the delivery of soil health principles to staff, customers and partners.

Soil health matters because:

1. Healthy soils are high-performing, productive soils.
2. Healthy soils can reduce production costs and improve profits.
3. Healthy soils protect natural resources on **and** off the farm.
4. Franklin Roosevelt's statement, "The nation that destroys its soil destroys itself," is as true today as it was 75 years ago.
5. Healthy soils can reduce nutrient loading and sediment runoff, increase efficiencies, and improve pollinator and wildlife habitat.

The Five Principles Of Soil Health

SOIL COVER: ***Keep plant residues on the soil surface.*** Look down, what percentage of your soil is protected by residue? Erosion needs to be minimized before you can start building soil health.

LIMITED DISTURBANCE: ***Minimize tillage as much as possible.*** You will start building soil aggregates, pore spaces, soil biology, and organic matter.

LIVING ROOTS: ***Keep plants growing throughout the year to feed the soil.*** Cover crops can add carbon to the soil, providing a great food source for micro-organisms. Start small to find the best fit for your operation.

DIVERSITY: ***Try to mimic nature.*** Use cool and warm season grasses and broad leaf plants as much as possible, with three or more crops and cover crops in rotation. Grassland and cropland plant diversity increases soil and animal health.

INTEGRATING LIVESTOCK: Fall/winter grazing of cover crops and crop residue increases livestock's plane of nutrition at a time when pasture forage quality can be low, increases the soil biological activity on cropland, and improves nutrient cycling. Proper grassland management improves soil health.

Natural Resources Conservation Service

nrcs.usda.gov/

First Step:
Connect with your local NRCS office

- Phone call or email to office
- Anyone can help you
- Site visit and walk your land

Program and Resource Basics

- Financial and Technical Assistance
- Voluntary
- Competitive
- Method of implementing is through contracts
- Primarily on working lands
- Practices must have conservation benefit, not just increased production production

Environmental Quality Incentives Program

- **Overview/Goals**
  - **Voluntary program that provides financial and technical assistance to agricultural producers to plan and implement conservation practices that improve soil, water, plant, animal, air and related natural resources on agricultural land and non-industrial private forestland.**

EQIP

- **Addresses resource concerns on private lands through implementation of conservation practices**
  - Technical assistance key
- **Program involving the most conservation partners**
- **During Farm Bill 2018, NRCS MN is averaging over 950 new contracts with an average of $26.8M over the last 2 yrs.**

EQIP: Common Activities related to:

- **Energy**

Energy Efficient Lighting System, Farmstead Energy Improvement & MORE

- **Pollinator & Wildlife Plantings**

Upland Wildlife Habitat Management, Conservation Cover & MORE

- **Livestock & Grazing**

Watering Facilities, Prescribed Grazing, Fence, Forage Harvest Management, Forage and Biomass Planting & MORE

EQIP: Common Activities related to:

- Conservation Activity Plans (CAP)

Energy, Nutrient, Pest, Pollinator, Organic Transition, Grazing, Prescribed Burning & MORE

- Soil Erosion

Reduced Tillage, Cover Crops, Contour Farming, Structural Erosion Control & MORE

- Water Quality

Field borders, Filter Strips, Tree Plantings, & MORE

- Soil Health & Plant Health

Cover Crops, Crop Rotations, Nutrient and Pest Management & MORE

Conservation Stewardship Program

- **Rewards existing conservation on and requires additional conservation activities be adopted**
  - Includes cropland, pasture, farmstead and forestland
- **5-year contracts with payments for benchmark conditions and practices and enhancements contracted**
- **223 contracts covering 190,558 acres enrolled during FY2020**

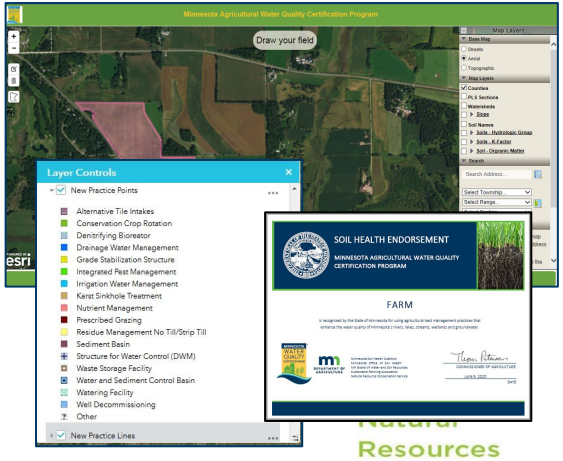
Conservation Stewardship Program

- **Program builds upon conservation practices available in EQIP**
- **Offers practices, enhancements and bundles of enhancements**

  Example
  - Practice: Cover Crop
  - Enhancement: Planting deep-rooted cover crop for soil health
  - Bundle: Multiple Enhancements that complement each other.

- **Entire Operation Included**

- MAWQCP offers producers:
  - Recognition
  - Financial/Technical assistance
  - Regulatory certainty for 10 years
  - Branding/Marketing opportunity
  - Check-up/Validation for growers
- Originally Established with MOU between State of Minnesota, USDA and US-EPA
  - Developed by stakeholder committee
  - Authorizing statute
  - Certification awarded with a 10-year contract

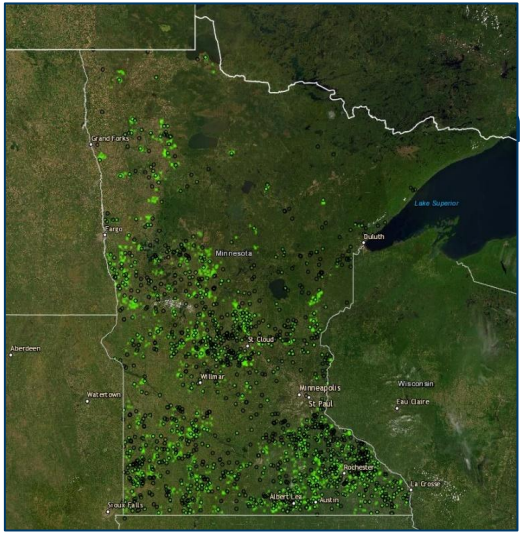


Natural Resources Conservation Service

nrcs.usda.gov/

- **978** certified producers
- **687,123** certified acres
  - 1,999 new practices
  - 108,114 tons of soil saved per year
  - 38,081 tons of sediment reduced per year
  - 47,878 pounds of P prevented per year
  - As much as 49% reduction in nitrogen loss

- Endorsements:
  - 23 Soil Health
  - 20 Integrated Pest Management



- Access Control
- Alternative Drain Tile Intakes (rock, pattern, Agri Drain H20 Quality Intakes/no perforated risers)
- Channel Bed Stabilization
- Conservation Cover
- Constructed Wetland
- Contour Buffer Strips
- Cover Crop
- Critical Area Planting
- Denitrifying Bioreactor
- Diversion
- Drainage Water Management
- Feedlot/Wastewater Filter Strip
- Fence
- Field Border
- Filter Strip
- Forage and Biomass Planting
- Grade Stabilization Structure
- Grassed Waterway
- Heavy Use Area Protection
- Integrated Pest Management
- Irrigation System, Sprinkler
- Irrigation Water Management
- Karst Sinkhole Treatment
- Lined Waterway or Outlet
- Mulching
- Nutrient Management (plan development)
- Obstruction Removal
- Open Channel
- Pipeline
- Pond
- Prescribed Grazing
- Pumping Plant
- Residue and Tillage Management - No-Till/ Strip Till/ Direct Seed
- Residue and Tillage Management - Ridge Till
- Riparian Forest Buffer
- Roof Runoff Control (feedlot)
- Sediment Basin
- Spring Development
- Stream Crossing
- Streambank and Shoreline Protection
- Strip cropping
- Structure for Water Control
- Subsurface Drain
- Terrace
- Trails and Walkways
- Tree & Shrub Site Preparation
- Underground Outlet
- Vegetated Subsurface Drain Outlet (Saturated Buffer)
- Vegetative Barriers
- Waste Storage Facility
- Water & Sediment Control Basin
- Water Well
- Water Well Decommissioning
- Watering Facility
- Wetland Restoration

Natural Resources Conservation Service

nrcs.usda.gov/

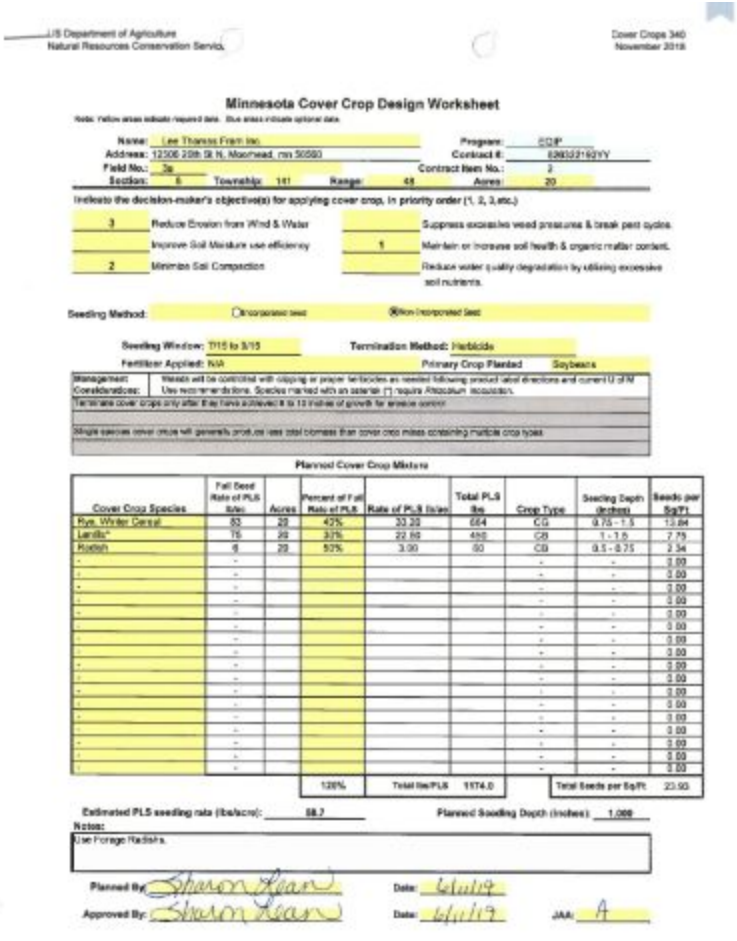
Farmer Share: John Beaton

Natural Resources Conservation Service

nrcs.usda.gov/

Farmer Share: Kathy Zeman

Farmer Share: Noreen Thomas



U.S Department of Agriculture
Natural Resources Conservation Service

Cover Crops 340
November 2018

Minnesota Cover Crop Design Worksheet

Name: Lee Thoreson Farm Inc.
Address: 12306 20th St N, Moorhead, mn 56560
Field No.: 3a
Section: 6 Township: 141 Range: 48
Program: CSP
Contract #: 82603219YY
Contract Item No.: 2
Acres: 20

Indicate the decision-maker's objective(s) for applying cover crop, in priority order (1, 2, 3, etc.)

3	Reduce Erosion from Wind & Water		Suppress excessive weed pressures & break pest cycles.
	Improve Soil Moisture use efficiency	1	Maintain or increase soil health & organic matter content.
2	Minimize Soil Compaction		Reduce water quality degradation by utilizing excessive soil nutrients.

Seeding Method: ☐ Incorporated Seed ☒ Non-Incorporated Seed

Seeding Window: 7/15 to 8/15
Termination Method: Herbicide
Fertilizer Applied: N/A
Primary Crop Planted: Soybeans

Management Considerations: Weeds will be controlled with clipping or proper herbicides as needed following product label directions and current U of M Use recommendations. Species marked with an asterisk (*) require Allelopathic accessions.
Terminate cover crops only after they have achieved 6 to 12 inches of growth for erosion control.
Single species cover crops will generally produce less total biomass than cover crop mixes containing multiple crop types.

Planned Cover Crop Mixture

Cover Crop Species	Full Seed Rate of PLS lb/ac	Acres	Percent of Full Rate of PLS	Rate of PLS lb/ac	Total PLS lbs	Crop Type	Seeding Depth (inches)	Seeds per Sq/Ft
Rye, Winter Cereal	82	20	42%	33.20	664	CG	0.75 - 1.5	13.84
Lentils*	75	20	30%	22.50	450	CB	1 - 1.5	7.75
Radish	8	20	50%	3.00	60	CB	0.5 - 0.75	2.34
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
-	-					-	-	0.00
			120%	Total lbs/PLS 1174.0			Total Seeds per Sq/Ft	23.93

Estimated PLS seeding rate (lbs/acre): 58.7
Planned Seeding Depth (inches): 1.000

Notes:
Use Forage Radishs.

Planned By: Sharon Lear Date: 6/4/19
Approved By: Sharon Lear Date: 6/4/19 JAA: A

Natural Resources Conservation Service

nrcs.usda.gov/

Upcoming Events

February 8-13: SFA Annual Conference

- Economics of Silvopasture
- Agriculture in the Metro
- Farm to Rural Grocery
- Farm Side Hustles
- Many More

March 9-11: Midwest Soil Health Summit

- Gabe Brown: Gab with Gabe
- Sara Keough: Soil Health and Human Health
- Jared Luhman, Sarah Lindblom, Doug Voss & Kent Solberg: Practical Applications for Soil Health

Questions?

Put your email in the chat box if you are would like to have a local connector reach out to you!

USDA
United States Department of Agriculture

NRCS - Helping People Help the Land

Productive Lands, Healthy Environment