

**Organic Agriculture and
NRCS Conservation Programs**

**EQIP
CSP**

Conservation Activity Plan to Transition to Organic

**Identifying How Organic Regulations and
NRCS Conservation Programs
Together Address Conservation Concerns**

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FARMS
FARMERS' ALLIANCE FOR RURAL MANAGEMENT & SUSTAINABILITY

SARE
Sustainable Agriculture Research and Education

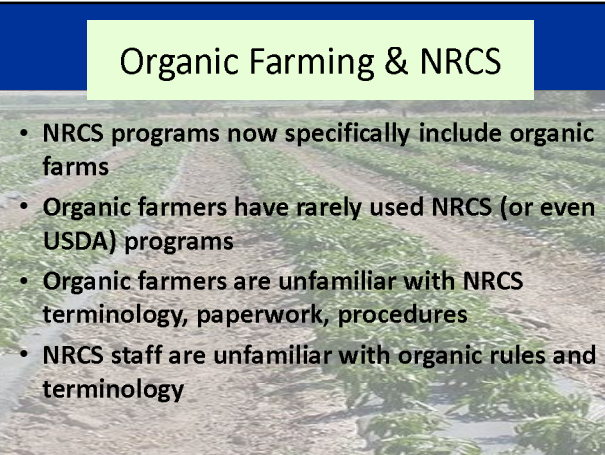
**CENTER for
RURAL AFFAIRS**
1000 N. 10th St. • Fort Collins, CO 80501 • (970) 226-1000



Organic Farming & NRCS


- Organics and USDA
- Organic certification: crops, livestock
- Organics in EQIP and CSP
- Resources

**NO SPRAY
ZONE**



Organic Farming & NRCS

- NRCS programs now specifically include organic farms
- Organic farmers have rarely used NRCS (or even USDA) programs
- Organic farmers are unfamiliar with NRCS terminology, paperwork, procedures
- NRCS staff are unfamiliar with organic rules and terminology




Top 10 Tasks for NRCS

1. Introduce USDA programs & procedures
2. Awareness of programs: EQIP, CSP
3. Advise on whole-farm conservation needs
4. Advise on Technical Service Provider option
5. Help with buffer zones through Conservation Practices

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Top 10 Tasks for NRCS

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6. Help with erosion control: fixing and prevention
 7. Help with manure/nutrient management
 8. Help with pasture management & development
 9. Help with wildlife habitat development
 10. Advise on special provisions

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EQIP Special Provisions

- Practices specific to Organic Initiative (Conservation Activity Plan for Transition)
- Higher payment rates for Organic Initiative (75% vs. 60%)
- Emphasis on Historically Underserved (HU) participants (Limited Resource Farmers, Beginning Farmers, Socially Disadvantaged Farmers): higher payment rate (up to 90%)
- Pollinator habitat priority
- High Tunnel availability

Top 15 Tasks for Farmers

Work with certifier & TSP	Develop erosion control plan
Stop using prohibited inputs	Develop soil fertility plan with soil-building rotation
Identify markets	Develop resource protection plan
Place buffer zones	Plan tillage type & timing
Fix problems: erosion, weeds, soil imbalances	Develop & record pest management plan

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Top 15 Tasks for Farmers

Source organic seed
Keep records of field activities
Plan for livestock replacement & management
Keep health records for livestock
Develop & record pasture management plan

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Organic Definition

➤ **Organic production-** A production system that is managed in accordance with the Organic Foods Production Act and regulations to respond to site-specific conditions

by integrating cultural, biological and mechanical practices that foster cycling of resources, promote ecological balance and conserve biodiversity.



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Any farmer or processor who sells more than \$5000 annually of organic production, must be **Certified** to use the organic label,



with a yearly inspection to continue their certification.

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The USDA National Organic Program



Based on a law passed by Congress in 1990 and October 2002 Code of Federal Regulations CFR 7 Part 205

www.ams.usda.gov/nop

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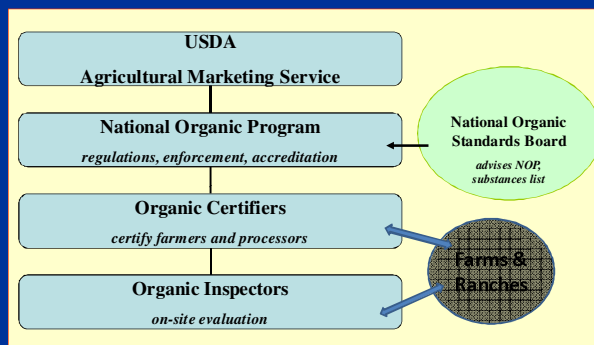
NOP, a program within the USDA

- Accredite certifying agents
- Determine equivalence with other organic certification programs
- Make new and amended regulations
- Compliance and enforcement

USDA does NOT certify individual operations.



Organic Certification Chain



EQIP and CSP
Environmental Quality Incentives Program
and
Conservation Stewardship Program

Goals for the quality and condition of our natural resources may be met through the National Organic Program. – NRCS Organic Crosswalk

Many NRCS practice standards are foundation activities on an organic farm.



EQIP

- General signups
- Organic Initiative



Separate organic funding pools:

- Transition to organic
- Existing organic with new conservation

Specific practices may have higher payments under the Organic Initiative than under the General Signup.

CSP

The Conservation Measurement Tool, used to rank CSP applications, gives points based on good conservation practices already in place and for new conservation practices.

Long term organic farmers may have these conservation practices

- conservation crop rotations
- use of cover crops
- rotational grazing
- streambank protection.



Organic farmers tend to be early adopters of new practices. They are good candidates for further Enhancements to their CSP application such as shelterbelts, pollinator habitat or critical area plantings.

CSP

National Organic Program	Conservation Stewardship Program
<p>§205.202 Land requirement</p> <p>There are no land use criteria in the NOP rules. Organic certification can be obtained on cropland, pasture, range, and forest lands provided they meet the following two criteria.</p> <p>1. Prohibited Substances - the land had no prohibited substances, as listed on the National List of Allowed and Prohibited Substances, applied for a period of three years immediately preceding harvest of the crop</p>	<p>CSP individual and land eligibility requirements will not aid a producer in the transitioning process; however, several of the Conservation Enhancements can be adopted during the transition period so they are in place when the producer submits their Organic System Plan for certification. These are:</p> <ul style="list-style-type: none"> • PLT01 - Establish pollinator habitat • SOE03 - Continuous no till organic • SQL02 - Continuous cover crops • SQL04 - Use of cover crop mixes • SQL05 - Use of deep rooted crops to break up soil compaction • WOL20 - Transition to organic cropping system • WOL10 - Plant an annual grass-type cover crop that will scavenge residual nitrogen • WOL14 - Land apply only treated manure • WOL16 - Use of legume cover crops as a nitrogen source • WOL17 - Use of non-chemical methods to kill cover crops • WOL21 - Integrated pest management for organic farming • WOL19 - Transition to organic grazing • WOL18 - Non-chemical pest control for livestock • SQL06 - Conversion of cropland to grass based agriculture for bio-mass, forage production and/or wildlife habitat • PET08 - Habitat development for beneficial species • CCR99 - Resource-conserving crop rotation



CSP Enhancements

2010 Ranking Period 2

Water Quality Enhancement Activity - WQL15 - Reduce the concentration of nutrients on farm by limiting the amount of feed and fertilizer brought on livestock farms



Enhancement Description
Grow at least 75% of feed for livestock on the farm and use manure from the livestock to supply at least 50% of N, 90% of P and 90% K for crops grown on the farm.

Land Use Applicability
Cropland and pastureland.

Benefits
Reduces the amount of feed and fertilizer brought on farm, reducing nutrient runoff.

Energy Enhancement Activity - ENR05 - Locally grown and marketed farm products



Enhancement Description
This enhancement is for conversion to a farm operation where inputs to the farm such as livestock feed and fertilizers are sourced locally and products from the farm are sold to consumers locally.

Land Use Applicability
Cropland, pastureland, rangeland and forest land.

Energy Enhancement Activity - ENR03 - Pumping plant powered by renewable energy



Enhancement Description
This enhancement requires the use of renewable energy - solar or wind - to power pumping plants for irrigation, drainage, livestock watering, or wildlife.

Land Use Applicability
Cropland, pastureland and rangeland.

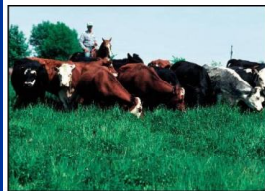
Benefits
The advantages of using solar or wind resources to power water pumps include conservation of fossil fuels, the reduction of the use of chemical

CSP Enhancements



2010 Ranking Period 2

Pasture Enhancement Bundle - BPA01



Pasture Enhancement Bundle #1

This bundle of enhancement activities includes ANM03-15% Native Grasses or Legumes in Forage Base, WQL03-Rotation of Supplement and Feeding Areas, WQL12-Manage Livestock Access to Water Bodies, ANM09-Grazing Mgmt for Wildlife and PLT02-Monitor Key Grazing Areas.

Land Use Applicability
Pastureland

Farmers choose organic because...

Premium prices
Avoidance of farm chemicals
Interest in environmental care



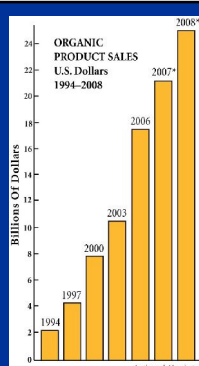
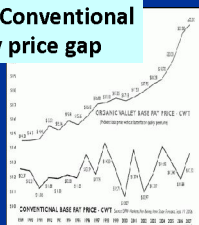
Organic standards reflect these interests:

- Certification creates a market identity
- Inputs are limited by organic rules
- Plans required for resource protection

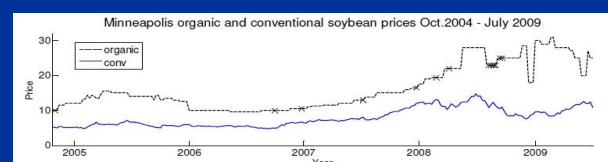
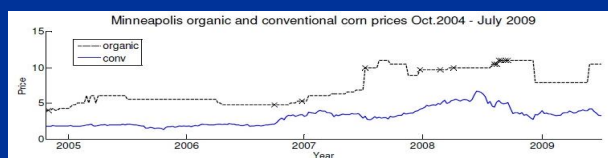
**Organic sales increased 20%/yr,
AND organic prices to farmers are
consistently higher than
conventional.**

**Farmers have higher labor costs, but
lower input costs with organic.**

Organic vs. Conventional milk pay price gap



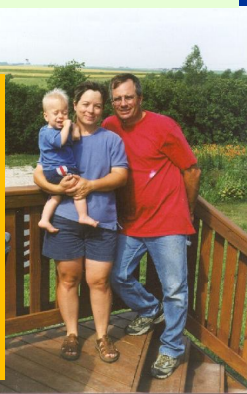
Price Premium for Organic Feed Grains



Less Land, More Profits

Tim and Krisanne Cada

- Took over Tim's grandfather's farm in east-central Nebraska.
- Farmed 400 acres in a conventional rotational system for nine years.
- Started with organic soybeans on 45 acres of alfalfa land in 1994.



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Less Land, More Profits

Conventional Vs Organic Corn Net Returns

	Cada Farm	Conventional
Yield (bu./acre)	\$136	\$154
Price/bu.	\$3.45	\$1.80
Gross receipts/acre	\$469	\$277
Total direct Exp.	\$104	\$110
Net Return/acre	\$365	\$167

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Less Land, More Profits

Organic Vs Conventional Soybean

Net Returns

	Cada Farm	Conventional
Yield (bu./acre)	30	38
Price/bu	\$16	\$4.50
Gross return/acre	\$480	\$171
Total Direct Exp.	\$91	\$84
Net Return/Acre	\$389	\$87

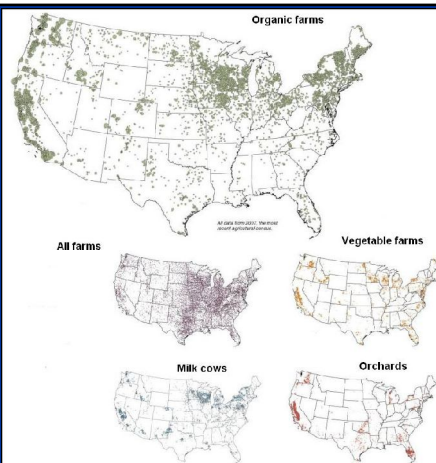
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Tillage and conservation in organic systems

- Tillage used instead of chemicals
- Organic rules mandate erosion control
- Soil tilth & erosion resistance results from soil-building mandate
- Manures and compost build SOM
- Rotations, strip cropping, buffers limit erosion potential
- Water quality & wildlife benefits from all these practices



"You could say the organic farmer's real crop is the soil." Tim Cada



Organic System Plan

Organic farmers must complete an *Organic System Plan* for certification and update it annually, and must present it to NRCS for the EQIP Organic Initiative.

This Organic System Plan for an organic production or handling operation includes *written plans* concerning *all aspects of agricultural production* or handling described in the Act and the regulations.

Conservation Activity Plan Transition to Organic (Practice Standard 138)

The CAP is a plan to transition some or all of the farm to organic production, AND address a variety of conservation concerns on the farm.

A Technical Service Provider can be hired to describe the planned changes to qualify for organic certification AND the planned implementation of NRCS conservation issues with possible cost share opportunities.

Final product is BOTH an organic system plan and an NRCS-approved Conservation Activity Plan.



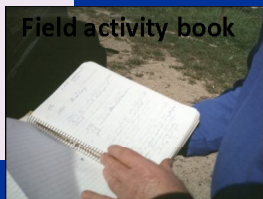
Organic System Plan: An Overview of the Farm

- Fields requested for organic certification - distinct borders
- Crops grown this crop year
- 3 year field histories on each field: crop rotation and all inputs
- Livestock requested for organic certification
- Parallel or Split Production?
 - Parallel - Organic and Nonorganic crops of the same type
 - Split - Organic and Nonorganic crops that are visually distinguishable from each other

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Organic System Plan: Production & Handling

- Practices
- Materials used
- Monitoring
- Recordkeeping
- Planting of organic seed
- Management and buffer zones



Organic System Plan: Audit Trail Documents

- Farmstead & field maps
- Field histories
- Field activity logs
- Input records
- Harvest records
- Storage records
- Health records
- Sales records
- Pasture records



Field History with Inputs

FIELD HISTORY SHEET

Give the following information on each field under your management, including those requested for organic certification, fields in transition/conversion to organic production, and fields managed conventionally. *Transition in conversion* means that the fields are being managed in accordance with organic standards but has not yet met the standard for 36 months without use of prohibited products. Make copies so you can use the same form for 5 years.

Producer Name Margo Schmidt Certification Agency OCA

[illegible]

Transition period
to organic



*This includes
no use of nonapproved
seed treatments for the
transitional years.*

Land Requirements

- Fields must have distinct boundaries and buffer zones.
- No prohibited substances applied to it for a period of 36 months immediately preceding harvest of the crop.

Previously fallow land can grow an organic crop immediately: no waiting time.

NOT Approved for organic

- Irradiated
- Grown with sewage sludge
- Genetically engineered products

NO Synthetic substances unless specifically approved.

**Can certify farm on a field-by-field basis;
whole farm does not have to meet NOP rules.**

Organic Crop Fertilizers



- Fish Emulsion
- Kelp Meal
- Soybean Meal
- Feather Meal
- Blood Meal
- Bone Meal
- Humic Acid
- Compost
- Raw Manure
- Dehydrated pe

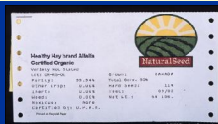
Soil Amendments –mined

*Quarry lime okay;
hydrated lime not ok*

*Gypsum – calcium sulfate okay;
recycled wall board not ok*

- Dehydrated pelletized manures/composts

Farmers must plant organic seeds, *unless* they document they cannot find an organic version of the variety, quality or quantity they want to plant.



High price is not an acceptable reason to not buy organic seed.

No captan, apron or other nonapproved seed treatments allowed within three years of organic harvest.

No GMO nitrogen fixing bacteria allowed, but nonGMO inoculants are allowed.

Cover crop seeds must follow these rules as well.

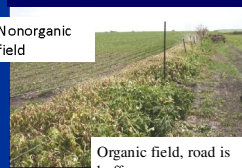
Buffer zones required where organic land adjoins conventional land

- Common size: 25 to 30 foot buffer area
- Common buffers: roads, grass, hay or trees

Size of the buffer is directly related to the risk posed by use of prohibited substances on neighboring lands.

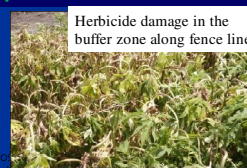
NRCS practice standards may be more specific, such as the CSP Enhancement to expand buffers to 60 feet.

Nonorganic field



Organic field, road is buffer

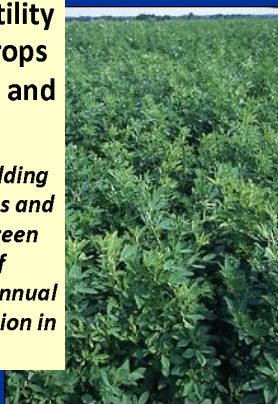
Herbicide damage in the buffer zone along fence line.



Prepared by MP
www.mosesorganic.org

Soil fertility Manage fertility using rotations, cover crops and application of plant and animal materials.

NOP: There must be a soil building rotation, including small grains and legumes either as crops or green manures to break cycle of continuous row cropping; no annual crops may be grown in succession in the same field.



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Organic pest, weed and disease control hierarchy

1st: - Cultural (crop rotation, sanitation, seed variety)

- Mechanical or physical (exclusion, beneficial insect habitat, lures, traps, repellants, mulches, flame)

2nd: Natural biological, botanical or mineral inputs

Last: Approved synthetics on the national list -- provided the CONDITIONS for use are DOCUMENTED and the previous 2 were ineffective

National List of Allowed and Prohibited Substances

- All naturals approved, *except* for those specifically *prohibited*
- All synthetics prohibited, *except* for those specifically *allowed*
- Separate listings for crops, livestock and ingredients in processed products.

Organic Livestock Production

- ✓ Feed must be organic.
- ✓ Health care within organic requirements.
- ✓ Pasture for all ruminants is mandated.
- ✓ Housing must allow for freedom of movement.
- ✓ Records maintained on health and feed
- ✓ Slaughter mammals must be organic from last third of gestation
- ✓ Poultry must be organic from second day of life

www.mosesorganic.org

Conversion to Organic Dairy

One year of organic management prior to sale of organic milk or organic dairy animals.

100% certified organic feed and health care.

Feed given all animals (cows, heifers, calves) during the conversion year can be grown on 24-36 month "transition to organic" land, as long as it is grown by the farmer requesting the organic dairy certification.

Transitional feed cannot be used if purchased from off the farm.



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All feed contains only organic agricultural ingredients.

Feed supplements do not contain poultry or mammalian by-products, urea or manure; or prohibited preservatives or colorings.



Administration of vaccines and other veterinary biologics **ALLOWED**



Use of antibiotics is prohibited in all livestock production sold as organic.

Cannot withhold necessary medication to retain the organic status of the animal; humane treatment mandated.

NOP rules: Manure Handling Manure Storage Manure Spreading



- Manure storage or spreading cannot pollute ground or surface waters.
- Manure spread in winter on frozen ground may need a nutrient management plan.
- Oversight of manure application is part of the certification process.

NOP rules: Pasture mandated for ruminants

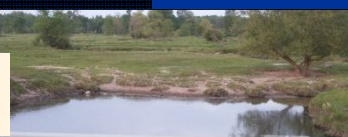
Pasture: Land used for livestock grazing that is managed to provide feed value and maintain or improve soil, water, and vegetative resources.

Minimum 120 days pasture access and 30% of total dry matter intake



NOP rules:

Erosion should be avoided.



Organic animals cannot graze in nonorganic buffer areas. Secondary fencing may be necessary.



Typically 25-30 feet, no mandated size, only of "sufficient size" to prevent contamination.



NRCS practice standards and organic agriculture.



Erosion Control

Practice Standards
393, 329, 412 and more

Filter Strips
Residue Management
Grassed Waterways

NOP rules: Select and implement practices that maintain or improve the physical, chemical, and biological condition of soil and
minimize soil erosion.

Water Conservation also mandated.

ND NRCS practice standards and organic agriculture.



Buffer Zones

Practice Standards
386, 380, 422, 650

Field Borders
Hedgerows
Windbreaks

Benefits:

Reduced soil erosion
Increase available plant moisture
Wildlife habitat

BUFFER ZONES
required for organic
production

NRCS practice standards and organic agriculture.



Pollinator Enhancement

Pollinator habitat a Farm Bill priority when determining payments under EQIP for both native and managed pollinators

(Pest Management, Practice Standard 595: \$9 - 600/ac)

Organic regulations require biodiversity. Organic farmers recognize the value of beneficial insect habitat.



ND NRCS practice standards and organic agriculture.

Practice Standard 340 **Cover Crops**



- Reduce erosion
- Manage excess nutrients
- Increase soil organic matter
- Promote biological nitrogen fixation
- Increase biodiversity
- Suppress weeds **\$19 - \$53/ac**

ND practice standards and organic agriculture.

Practice Standard 328

Conservation Crop Rotation

- Crops grown in sequence to reduce erosion
- Maintain or improve organic matter
- Improve water efficiency
- Manage plant pests
- Food for wildlife

Nearly exclusive to organic farms

\$20/ac



Change of rotation to include grass or legume

ND NRCS practice standards and organic agriculture.

Practice Standard 342

Critical Area Planting

\$72 - \$421/ac



ND NRCS practice standards and organic agriculture.

Practice Standard 595

Pest Management

Organic pest management plans start with cultural, mechanical and biological systems before use of synthetics are allowed.

Integrated Pest Mgmt: \$5/ac

Invasive species removal: \$156/ac

No dollar limit to this practice under Organic Initiative, so no acreage limit



ND NRCS practice standards and organic agriculture.

Practice Standard 528

Prescribed Grazing

\$2.50 - \$5 per acre



ND NRCS practice standards and organic agriculture.

Practice Standard 516
Pipeline

Installing pipeline for
grazed livestock

\$1.10 to \$4.10 per foot

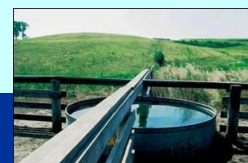
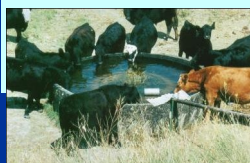


ND NRCS practice standards and organic agriculture.

Practice Standard 614
Watering Facility

Tanks, troughs, waterers

\$1.01 - \$2.56/gal, \$283 - \$1011 each



ND NRCS practice standards and organic agriculture.

Practice Standard 382
Fence

\$0.40 to \$6.44/ft



ND NRCS practice standards and organic agriculture.

Practice Standard 511
Forage Harvest Management

•Promotes quality and quantity of forage,
includes biomass production.

\$77 - 147/ac



ND NRCS practice standards and organic agriculture.

Practice Standard 590 Nutrient Management

\$2 - \$17/ac

\$2/ton

\$0.01/gal

*National reconsideration
may lead to requirement
of a suite of practices*



ND NRCS practice standards and organic agriculture.

Practice Standard 317 Composting Facility

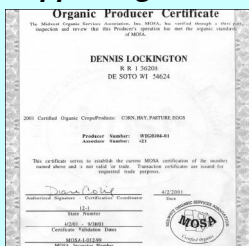
\$206/cubic yard



NRCS practice standards and organic agriculture.

Practice Standard 138 Conservation Activity Plan Supporting Organic Transition

Maximum payment to
Technical Service Provider
(TSP) **\$1200**



ND practice standards and organic agriculture.

Practice Standard 798 Seasonal High Tunnel System for Crops

\$2.65 /sq ft



Practice Standards to Support High Tunnels

Irrigation systems, drainage, cover crops, etc (ND practices)

- Erosion control: 412, 342
- Water management: 620
- Nutrient management: 590, 328, 340
- Pest management: 595

Top 10 Tasks for NRCS

Introduce USDA	Erosion control
Knowledge of EQIP & CSP	Manure/nutrient management
Whole-farm conservation	Pasture management & development
Technical Service Provider	Wildlife habitat development
Buffer zones	Specialty topics

Prepared by MOSES
www.mosesorganic.org

Organic Information Resources

Midwest Organic and Sustainable Education Service

Harriet Behar harriet@mosesorganic.org
Toll free organic information line 888-551-4769
PO Box 339 Spring Valley, WI 54767



ATTRA

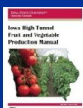
National Sustainable Agriculture Information Service
www.attra.org, 800 346-9140

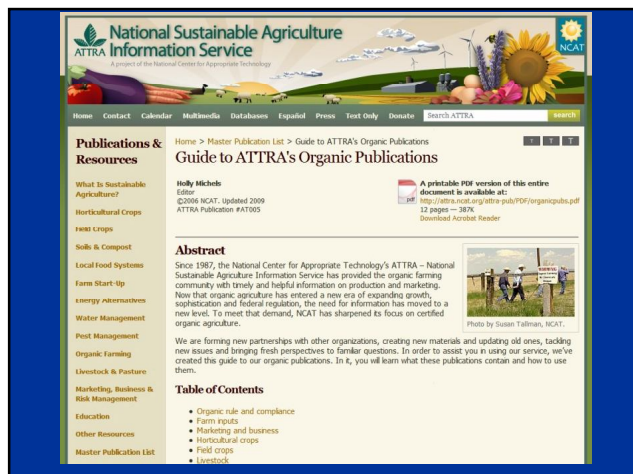


ISU High Tunnel Manual, PM 2098

<https://www.extension.iastate.edu/store/ListItems.aspx?Keyword=high%20tunnel>

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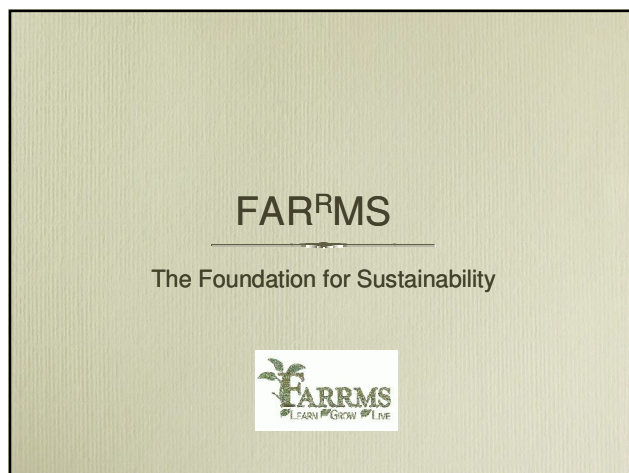
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Post-test:
www.surveymonkey.com/s/NDPosttest



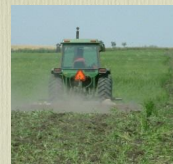
What is FAR^RMS?

- The purpose of our organization is to provide educational outreach, research and information regarding sustainable agriculture and rural resources. We want to further the sustainability of thriving farms and rural communities.
- Located in Medina, ND



Programs for Producers

- The Sustainable Farm Series
- Sustainable U
- Farm to School
- Field Days
- Mentoring
- Seed Production
- Greenhouse/Hoophouse Construction & Production



The Sustainable Farm Series

- A series of four (or five) classes geared towards existing farms and farmers interest in learning more about sustainable farming practices
- Classes are taught by experienced farmers and ag professionals
 - Whole Farm Planning
 - Specific Topics
 - Marketing
 - Monitoring and Adding Value to Your Farm
- Each participating family is offered a one-to-one mentoring relationship with an experienced farmer in their area of interest.



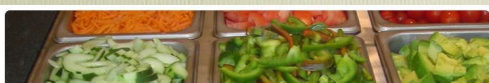
Sustainable U

- One day intensive education event
- 2010 - Three tracks: crops, livestock & gardening
- 2011 - Joel Salatin, December 3rd, Fargo, ND



Farm to School

- FAR^{MS} is the state contact for the national Farm to School program
- Farm to School works to match schools, hospitals and other institutions with local food producers
- We will be holding match-making events in the spring



Field Days



- One of our most popular event formats
- We partner with other organizations to sponsor tours of successful farmers, processors and facilities.



Mentoring

- Online



- Mentors are listed on our website, anyone can click on the type of producer they are looking for and either email or call them for help.



- One-on-One



- Mentors are assigned to a producer based on production interests for a year (or longer).



Seed Production

- FAR^{MS} is partnering with NPSAS's Farm Breeder Club and the Farmers' Seed Alliance to support production of vegetable seed and organic crop seeds.
- We will have classes and grants/loans available.



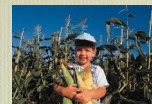
Greenhouse/Hoophouse Construction & Production

- FAR^{MS} offers seminars and classes on construction and production of both greenhouses and hoophouses.



New Programs

- Beginning Farmer Series
 - Working with new and/or young farmers
- Making Your Small Farm Profitable
 - Working with farmers with small acreages OR those who want to maximize production



Help for Producers

- Grants to Grow - just available in ND right now
 - This is a front end grant/back end loan program
 - There are 4 different application scenarios:
 - 1. Up to \$1000 - Straight Grant
 - 2. \$1001-\$3000 - \$1000 grant and the remaining amount is a low interest loan
 - 3. \$3001 - \$10,000 - Up to 33% of the request can be given as a grant and the remaining is a low interest loan
 - 4. Straight loan up to \$14 per acre
 - Application deadlines vary depending on the scenario



Staff

- Annie Carlson, Executive Director
- Jennifer Lunde, Administrative Assistant
- Sue Balcom, Marketing & Outreach Coordinator
- Britt Jacobson, Grant Writer
- We're looking for a new Program Coordinator, see our website www.farrms.org for details

Contact Information

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Post-test:

www.surveymonkey.com/s/NDPosttest