





NRCS Opportunities for Financial & Technical Assistance

Tom Akin, Conservation Agronomist Thomas.Akin@usda.gov May 4, 2023

Natural Resources Conservation Service



Formerly Known as the Soil Conservation Service

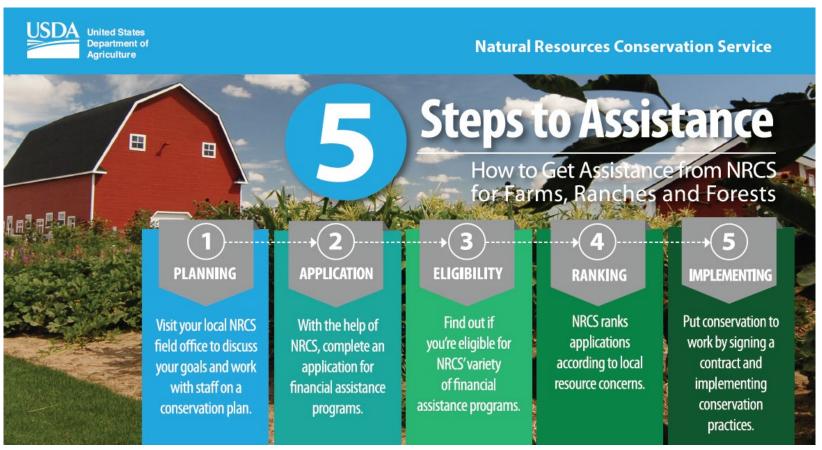


Home > Conservation Basics > Conservation By State > North Dakota > Who We Are - History of NRCS

Natural Resources Conservation Service (NRCS), formerly known as the **Soil Conservation Service (SCS)** is an agency of the United States Department of Agriculture (USDA) that provides technical assistance to farmers and other private landowners and managers.



Getting Started working with NRCS



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Technical Assistance

Three Broad Categories

- Engineering
- Ecological Sciences
 - Agronomy
 - Grazing
 - Forestry
 - Wildlife
- Soils

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Technical Assistance

- Engineering example conservation practices
 - Composting Facility
 - Access Road

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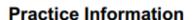


Conservation Practice Overview

Vermont January 2021

Composting Facility (Code 317)

A structure or device to contain and facilitate an aerobic microbial ecosystem for the decomposition of manure, other organic material, or both, into a final product sufficiently stable for storage, onfarm use, and application to land as a soil amendment.



A composting facility is designed to produce an amendment that adds organic matter and beneficial organisms to the

soil, provides slow-release plant-available nutrients, and improves soil health. This amendment can be applied to the land or marketed to the public.

Organic solid wastes to be composted derive primarily from agricultural production or processing. The compost can be reused in the operation, utilized for crop production, improve soil health, or marketed to the public.

Composting is accomplished by mixing a carbon material with a nitrogen-rich material in a manner that encourages the growth of aerobic bacteria. Bins, windrows, or in-vessel structures, such as a rotary drum, can be used.

Design information for this practice includes site location, design sizing, storage period, and safety/biosecurity features. It may also include fabricated structure criteria.

This practice has a minimum expected life of 15 years. Operation requirements for the facility depend on the type of facility chosen by the producer. For every system, the temperature and moisture content of the compost will be monitored frequently. Bin or windrow compost must be turned at least once during the composting process. The operation and maintenance plan includes provisions for proper utilization of residual material. Routine maintenance is needed to ensure the facility operates as designed.



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Composting Facility—Code 317



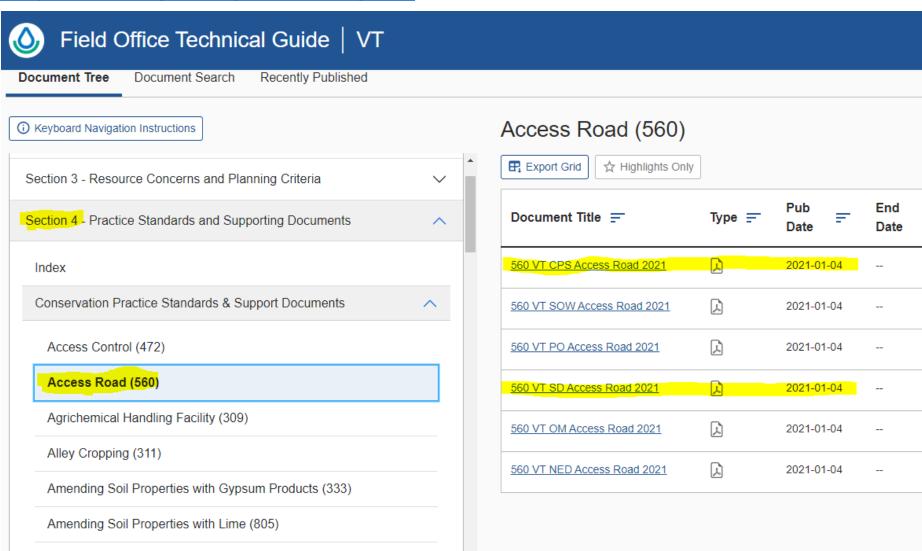
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Field Office Technical Guide

https://efotg.sc.egov.usda.gov/

Amendments for the Treatment of Agricultural Waste (591)





Sheet & Rill Soil Erosion





Soil Erosion & Water Quality





Mitigating Conservation Practices

- Crop Rotation
- Cover Crop
- Pasture & Hayland Planting
- Reduced Tillage
- No-Till
- Stripcropping



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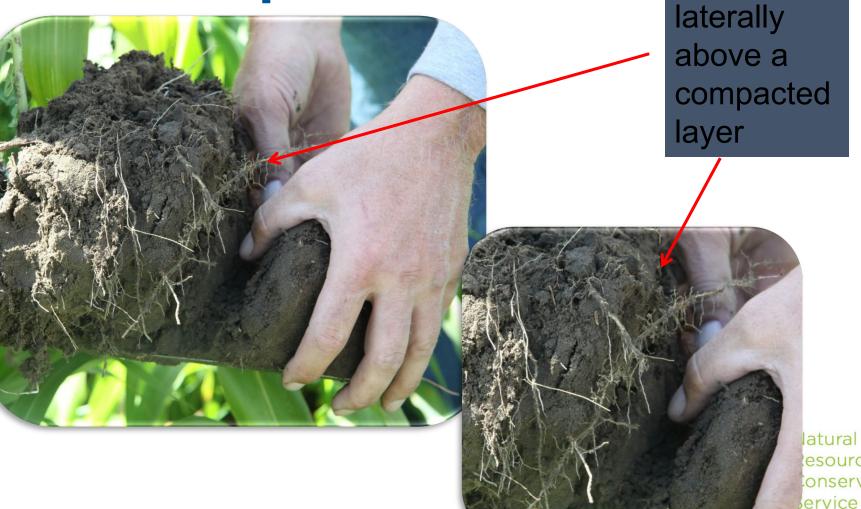
Soil Organic Matter Depletion



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Roots run



Soil Quality Practices

- Crop Rotation
- Cover Crop
- Pasture and Hayland Planting
- No-Till
- Soil Carbon Amendment



Reduced Tillage With Mulch

Lovin' Mama Farm, Amsterdam, NY

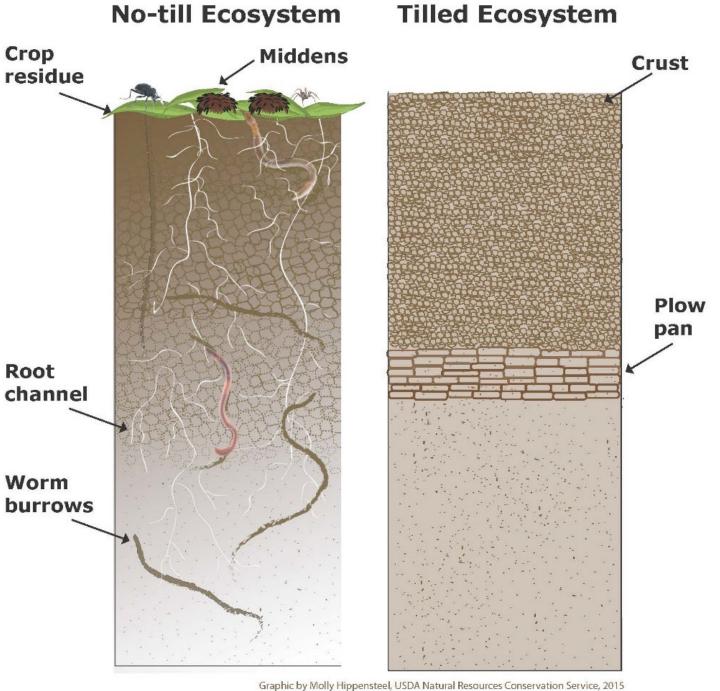




Cover Crop and No-Tillage







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Importance of Soil Aggregates







2016 Drought—Amherst, MA

Cover crop and conventional tillage



Cover crop and No-Tillage





Soil Organic Matter Depletion



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Soil Carbon Amendment

- Improve soil organic matter quantity, quality, and aggregate stability
- Improve plant productivity and health
- Compost, biochar, other carbon amendments (wood ash or wood chips)
- Requires a soil test or in-field soil health assessment
- SOM levels <5% or other resource concern



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United States Department of Soil Carbon Amendment

Assumptions

- Compost
- Biochar
- Compost/Biochar Mixes
- Other Soil Amendment (Wood chips or Wood Ash)
- Compost or biochar mixes applied at ~4 Tons/Acre



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Soil Carbon Amendment—Code 808

FY 2023 Payment Rates

С	D	Е	F
Practice_Name	Component	Unit_T _▼	Unit_Cost 🕝
Soil Carbon Amendment	100% Biochar	Ac	160.19
Soil Carbon Amendment	20% Biochar-80% Compost	Ac	71.82
Soil Carbon Amendment	40% Biochar-60% Compost	Ac	89.88
Soil Carbon Amendment	60% Biochar-40% Compost	Ac	118.76
Soil Carbon Amendment	80% Biochar-20% Compost	Ac	165.3
Soil Carbon Amendment	Compost - On Site	Ac	264.63
Soil Carbon Amendment	Compost + Biochar - Small Areas	kSqFt	8.78
Soil Carbon Amendment	Other Carbon Amendment	Ac	140.19

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Financial Assistance

EQIP – Environmental Quality Incentives Program

- Fix Problems
- Payments are reimbursements (~75-90% of cost)

CSP – Conservation Stewardship Program

- Get rewarded for good management
- Payments for existing practices (\$7.50/ac for cropland)
- Payments for practices and enhancements



United States Department of How Financial Assistance Programs Work Agriculture

- Applications are accepted continuously;
- Application batching periods are established in association with national guidance;
- Customer works with their local FSA office to establish USDA eligibility
 - NRCS approved conservation plan
 - Agricultural Producer status
 - Agricultural Land status and Land Control
 - Food Security Act Compliance
 - Adjusted Gross Income (AGI) verification
 - Other programmatic eligibility as appropriate



- Applications are selected for funding based on their ranking scores;
- Applicants not selected for funding are notified by letter, typically in September or October, and are offered to defer their application until the following fiscal year.



The Fine Print...

IRS Reporting

- The National Finance Center reports payments made to participants to the IRS on Form 1099- MISC.
- NRCS employees are not permitted to advise participants on the tax implications of conservation payments.



USDA Leaflet No. 323 - 1952!

WOOD CHIPS FOR THE LAND

By Arthur C. McIntyre, regional forester, Northeastern Region, Soil Conservation Service

OR MANY YEARS farmers have used sawdust and shavings for cattle bedding, for poultry litter, and for mulching. More recently, they have found that wood in mulches and soil amendments helps improve soil structure and produces better crops. There are communities where farm demand for wood waste often exceeds supplies from mill and factory. This demand has put a price on sawdust and shavings.

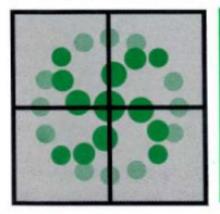




Cornell University -- 1971

NEW YORK'S FOOD AND LIFE SCIENCES BULLETIN

NO. 2, OCTOBER 1971



PLANT SCIENCES

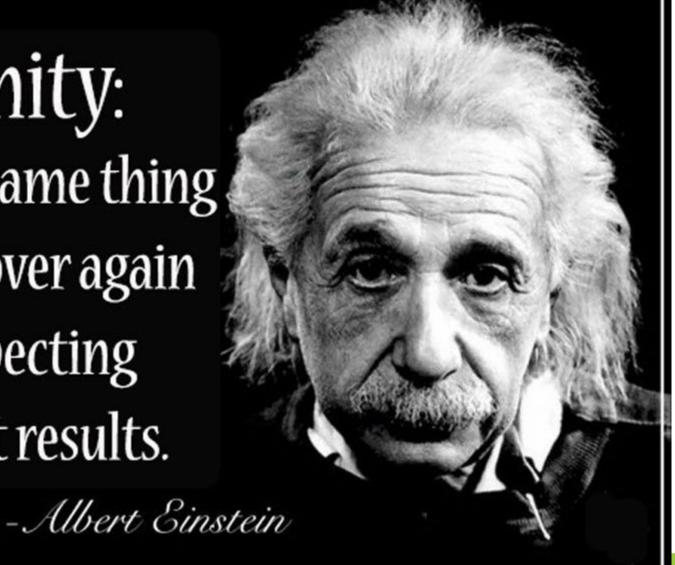
AGRONOMY NUMBER 1

CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION, NEW YORK STATE COLLEGE OF AGRICULTURE AND LIFE SCIENCES, A STATUTORY COLLEGE OF THE STATE UNIVERSITY, CORNELL UNIVERSITY, ITHACA, NEW YORK

Soil Management for Vegetable Production on Honeoye Soil with Special Reference to the Use of Hardwood Chips by G. R. Free*



Insanity: doing the same thing over and over again and expecting different results.





Questions?







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