



Western SARE

Phil Rasmussen, Coordinator
 Utah State University
 Agricultural Sciences Building
 Room 115
 4865 Old Main Hill
 Logan, Utah 84322-4865
 phone: (435) 797-2257
 fax: (435) 797-3344

Professional Development Program

Jim Freeburn
 Coordinator
 2753 State Hwy 157
 Lingle, Wyoming 82223
 phone: (307) 837-2674
 fax: (307) 837-2963

Find Western SARE online at:
www.westernsare.org

Western SARE Grant Categories

- Research & Education
- Professional Development
- Farmer/Rancher
- Professional + Producer
- Graduate Student

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COMPOSTING FOR WATER QUALITY

Situation

In September 2009, the Oregon Department of Environmental Quality released new rules for composting facilities. The rules potentially require expensive methods

Professional + Producer Grant

Title: Protecting Water Quality and Promoting Economic Efficiency at Agricultural Composting Facilities

Project Number: OW10-329

Principal Investigator:

Nick Andrews
 Extension Agent
 Oregon State University
 North Willamette Research & Extension Center
 15210 NE Miley RD.
 Aurora, OR 97002
 503.678.1264
nick.andrews@oregonstate.edu

Participants:

David Brown, Farmer
 Mustard Seed Farm
John Eveland, Farmer
 Gathering Together Farm
Wali Via, Farmer
 Winter Green Farm
Bob Wilt, Farmer
 Wilt Farms
Bob Barrows, Inspector
 Oregon Department of Environmental Quality
Jeff Gage, Compost Consultant
William Matthews, CAFO Team Leader, Oregon Department of Agriculture
Peter Moon, Compost Consultant, O2 Compost
 Brennan McMillen, Farmer
 Western Oregon Organic Farm
Dan Sullivan, Extension Soil Scientist, Oregon State Dept. of Crop and Soil Science

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STRENGTHENING AGRICULTURE'S
INFRASTRUCTURE

ADDING VALUE, BREAKING DOWN BARRIERS, INCREASING PROFITS

for protecting water quality that may be cost prohibitive for agricultural composters and could inhibit agricultural composting.

Poorly managed agricultural composting facilities can pollute water, especially as the scale of composting operations has increased. While DEQ recognizes the importance of composting as a means to improve soil quality and meet Oregon's organic recycling goals, DEQ is, at the same time, required to protect water quality.

Our goal is to identify practical methods for protecting

water quality at agricultural composting sites that will reduce environmental risk while helping farmers produce high quality compost.

Some farmers have developed low-cost and effective composting techniques that can mitigate environmental risk.

Objectives

- Conduct a participatory process to build trust and increase knowledge among farmers, compost facility regulators, compost industry con-

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Many farmers compost at dry times of the year and maintain grass strips to protect water quality, above. When compost piles become saturated, they can generate leachate (right), which can affect water quality.



The goal of Western SARE is to foster sustainability through grants that enable cutting-edge research and education to open windows of sustainability across the West.

*SARE's **vision** is an enduring American agriculture of the highest quality. This agriculture is profitable, protects the nation's land and water and is a force for a rewarding way of life for farmers and ranchers whose quality products and operations sustain their communities and society.*

*SARE's **mission** is to advance — to the whole of American agriculture — innovations that improve profitability, stewardship and quality of life by investing in groundbreaking research and education.*

COMPOSTING FOR WATER QUALITY

sultants and extension faculty

- Collect on-farm survey data to inform development of a guidance publication that will be written in collaboration with farmers, regulators and composting consultants
- Publish agricultural composting guidance for Oregon, with input from experts in Washington State

Activities

The project team is using a participatory process to educate producers about good composting practices and elicit expertise from agricultural professionals and producers to help develop a guidance manual for composting.

On-farm surveys are being conducted with producers, who will be identified with the help of Oregon departments of environmental quality and agriculture.

The project team will then publish the agricultural composting guidance manual, to be available online and through OSU Extension Publications, and it will create and maintain a website with lists and descriptions of agricultural composting resources.

Accomplishments/ Milestones

The first Farmer Focus Session was held Feb. 25, 2011, with speakers from the university, agencies and private enterprise. A second workshop is planned for the winter of 2012-13.

A survey questionnaire has been developed in consultation with project partners and several initial interviews with farmers have been conducted.

Regulatory agencies, farm-



When compost piles are exposed to wet weather, tarps can help to shed storm water.



Nick Andrews, right, North Willamette Research & Extension Center, consults with a producer.

ers, compost consultants and OSU extension agents are working in collaboration to develop the guidance manual for agricultural composting. The publication is in draft form and includes five sections:

1. Getting Started
2. Site Selection
3. Compost Site Layout and Design Considerations to

Protect Water Quality

4. The Composting Process and its Impact on Water Quality
5. Managing Leachate

The initial project website with some information on composting has been launched at <http://smallfarms.oregonstate.edu/compost-and-water-quality>. The guidance manual and other resources will be available at the site by early 2013.

Impacts and Contributions/Activities

When this project is completed in 2013, it is expected to provide:

- Increased farmer understanding of water quality risks associated with composting and practical methods for mitigating these risks
- Improved regulatory understanding of the limitations and opportunities for managing environmental risk on agricultural composting facilities