

Protecting Water Quality and Promoting Economic Efficiency at Agricultural Composting Facilities

Nick Andrews & Dan Sullivan (Professional + Producer Grant Program)

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

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

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Situation:

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

1. Conduct a participatory process to build trust and increase knowledge among farmers, compost facility regulators, compost industry consultants and extension faculty
2. Collect on-farm survey data to inform development of a guidance publication that will be written in collaboration with farmers, regulators and composting consultants
3. Publish agricultural composting guidance for Oregon, with input from experts in Washington State



When compost piles become saturated they generate leachate, which can threaten water quality.

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.



Many farms compost during dry times of the year and maintain grass strips between piles to protect water quality.

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, farmers, 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:

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



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