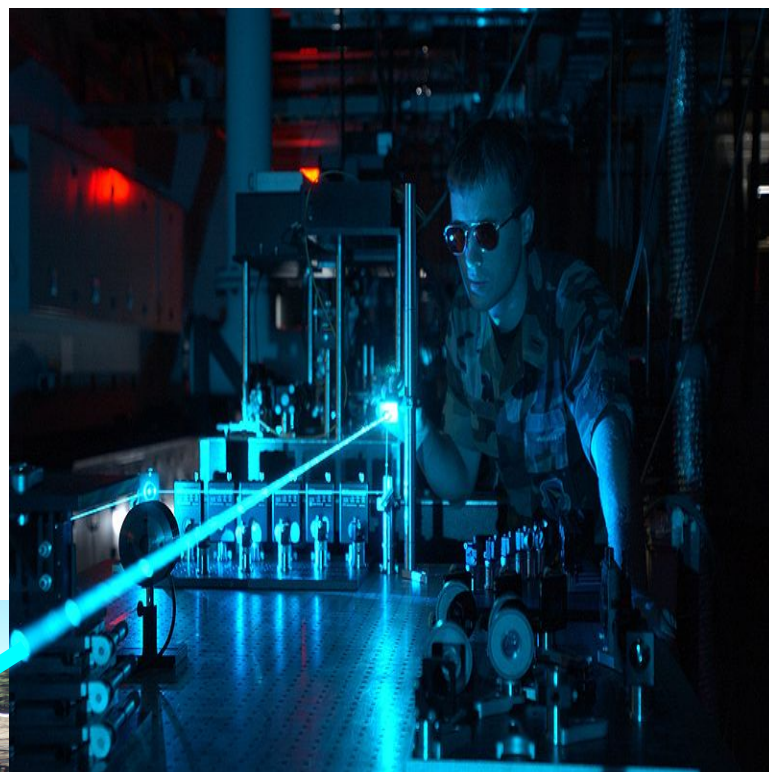


# New Technologies in Composting: What Works for the Organic Production Market



Organic Materials Review Institute (OMRI)

# Who am I?

Doug Currier

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(541) 343-7600

ext. 113

- Product Review Coordinator, 2 years this March
- Background in Organic Farming Systems and Organic Principles
- Responsibilities at OMRI: Product Review and Recommendations

# Topics

About OMRI

Reviewing Compost  
Products

Discussion focus:  
New Composting  
Technologies: **Anaerobic  
Digestion and  
Biodegradable Plastic  
Mulches**

NOP and  
NOSB, Petition Process  
and OMRI Comment  
Forms



OMRI



OMRI Listed – Naturally Trusted · [www.omri.org](http://www.omri.org)



**A non-profit,  
non-governmental  
research & education organization**

OMRI is a 501(c)(3) nonprofit that reviews input materials such as fertilizers, feed additives and processing aids to determine whether they meet the National Organic Standards for inputs.



Lactic acid bacteria



Molasses



Gypsum



Fish waste-stabilized?

# OMRI Relationship with USDA

- No formal or legal relationship with USDA
- Independent, 3<sup>rd</sup> party with ISO 65 accreditation
- Policy Memo 11-4, issued by the NOP states that other Accredited Certifying Agents can except OMRI's determination of a product

Page 192 of 214



United States Department of Agriculture  
Agricultural Marketing Service  
National Organic Program

1400 Independence Avenue SW.  
Room 2646-South Building  
Washington, DC 20250

Policy Memo 11-4

<http://agr.wa.gov/FoodAnimal/Organic/MaterialsLists.aspx>

3. Certifying agents may consult with a reputable third party source (e.g., the EPA, the Organic Materials Review Institute (OMRI)) that evaluates the product's compliance with the NOP regulations, and accept their determination. OMRI has a publicly available list of approved products available at <http://www.omri.org/omri-lists>.

In all cases, documentation must accompany the resulting determination.

**Document Control:**

This document supersedes "Verification of Materials Memo" dated March 5, 2008, and "Documented Source of Approved & Prohibited Materials for Use in Organic Operations" dated July 16, 2004, which are now obsolete.

# OMRI Services

## OMRI Generic Materials List

- Material listings that reference the NOP Rules
- Separated by Classes
- Includes use and material Categories, with applicable restrictions



## OMRI Products List

- Individual products that are reviewed by OMRI
- All products have a Class and a Category



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# Meeting NOP Composting Requirements

- Compost is defined at in the NOP Rule at §205.2
- §205.203 (c)(2) establishes composting standards
- NOP Guidance 5021 clarifies practices for “composition, production, and use of compost and vermicompost in organic crop production.”
- Compost not meeting these standards is restricted.

## §205.203(c)


“The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.”

# OMRI's Compost Categories

- Compost-windrow (40 products)
- Compost-in-vessel or static aerated piles (9 products)
- Compost-other (72 products)
- Compost-Plant Materials (23 products)
  - ▲ ▲ Allowed ▲ ▲
- Compost Tea- **Restricted** \* (11 products)
  - \*A proposed edit to our GML Category would remove restriction.

Total: 155 compost products

# Reviewing Composts

- OMRI reviews manufacturing processes to ensure composts are meeting NOP standards
  - Compost feedstocks are also reviewed
  - OMRI requires submission of pathogen (Fecal coli forms and Salmonella) testing of the final product as part of the review
- Restricted if:
- Fecal coli forms >1000MPN/g or Salmonella >3MPN/4g
- The National List identifies “newspapers or other recycled paper, without glossy or colored inks” as the only allowed synthetic compost feedstock
-  In general nonsynthetics and allowed synthetics at §205.601 are allowed and intentionally added synthetics not on the National List and prohibited nonsynthetics at §205.602 are prohibited

# Vermicomposting

- NOP Guidance 5021 provides standards for vermicomposting
- Must be made from allowed feedstocks and aerobic conditions are maintained through regular additions of organic matter, turning, or forced air and moisture must be maintained between 70-90%

OMRI Currently lists 28 products as allowed in the Category: Worm Castings and one as allowed with restrictions in the Category: Worm Castings.

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# Anaerobic Digestion

- The NOP Rule or Guidance Documents do not directly address Anaerobic Digestion (AD)
- §205.2 defines compost as “The product of a managed process through which microorganisms break down plant and animal materials into more available forms suitable for application to the soil...”

# Anaerobic Digestion cont.

- The NOP's definition of compost does not specifically state that it is an aerobic process.
- OMRI's interpretation of the Rule has led to the listing of an anaerobic digestate product in the Category: Compost-other.

Lochmead Farms Digester





## Anaerobic Digestion cont.

- Until the NOP addresses the compliance of AD products, OMRI will look for applying companies to demonstrate that their AD operations are meeting compost standards.
- OMRI has also listed AD products meeting compost standards in the Category: Fermentation Products

# Biodegradable Plastic Mulches

## Recent Developments:

- NOSB voted to classify biodegradable plastic mulches as synthetic and recommended the NOP add them to §205.601(b)(2) (Fall 2012 Meeting)
- Their recommended listing at §205.601 is annotated

# §205.601(b)(2) annotation

- (a) Completely biodegradable as shown by:
  - (1) meeting the requirements of ASTM Standard D6400 or D6868 specifications, or of other international standard specifications with essentially identical criteria, i.e. EN 13432, EN 14995, ISO 17088; and
  - (2) showing at least 90% biodegradation absolute or relative to microcrystalline cellulose in less than two years, in soil, tested according to ISO 17556 or ASTM 5988
- (b) must be biobased with content determined using the ASTM D6866 method;
- (c) must be produced without organisms and/or feedstocks derived from excluded methods;
- (d) grower must take appropriate actions to ensure complete degradation.

## Biodegradable Plastic Mulches cont.

- If the NOP approves the addition of Biodegradable plastic mulch to §205.601(b)(2) its use will only be for use as a herbicide, weed barrier.
- Composters will need to continue to remove biodegradable plastics from compost feedstocks until the NOSB recommends their inclusion at §205.601(c)

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# National Organic Standards

- Foundation of OMRI Standards
- TITLE 7 part 205 of the Federal Regulations
- 205.105 List of allowed and prohibited substances and methods
- Subpart C- Organic methods, core of standards.
- §205.203 addresses compost manufacturing and §205.601(c) identifies synthetic materials allowed as compost feedstocks.

# NOSB

- National Organic Standards Board
- Submits recommendations to the Secretary of Agriculture on issues outlined in OFPA
- Responsible for Sunset reviews of substances listed as Allowed or Prohibited in the National Rule
- Also responsible for recommending synthetics be added to the National List

# Adding Substances to The National List

Petition the National  
Organic Standards  
Board (NOSB)

[http://www.ams.usda.gov/  
AMSV1.0/  
NOPFilingaPetition](http://www.ams.usda.gov/AMSV1.0/NOPFilingaPetition)

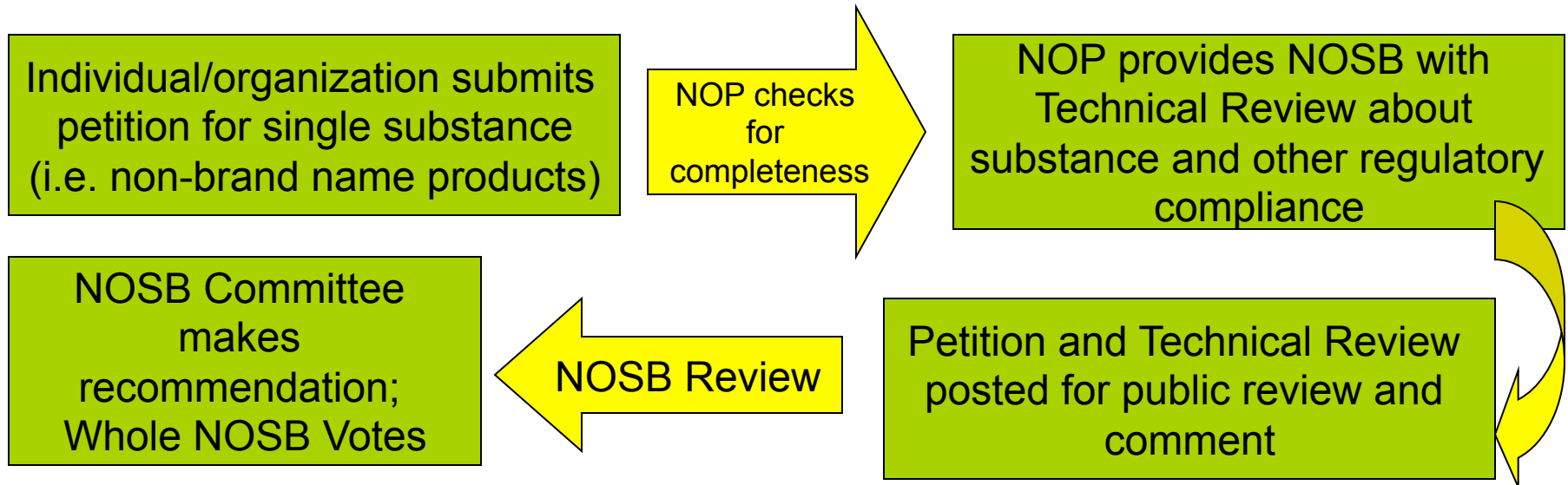


The screenshot shows the USDA Agricultural Marketing Service website. The header includes the USDA logo and the text "United States Department of Agriculture Agricultural Marketing Service". Below the header is a navigation menu with links for Home, About AMS, Newsroom, Opportunities, Online Forms, Help, and Contact Us. The main content area is titled "National Organic Program" and contains the following sections:

- Search AMS:** A search bar with a "Go" button.
- Advanced Search:** A list of search options including Search Tips, Market News Search, and Browse by Subject.
- Browse by Subject:** A list of subject areas including Market News, Commodity Areas, Grading, Certification and Verification, Science and Laboratories, National Organic Program, Commodity Purchasing, Agricultural Transportation, Farmers Markets and Local Food Marketing, Regulatory Programs, Research and Promotion Programs, Marketing Orders and Agreements, Grant Programs, and International Marketing.
- How to File a Petition:** A section explaining the process of filing a petition to add, remove, or amend a substance on the National List of Allowed and Prohibited Substances. It includes the role of the NOSB and the NOP.
- Receive NOP Updates:** A section with a link to "Be an Organic Insider!".
- NOP Finder:** A section with links to NOP Homepage, Consumer Information, Organic Standards, National Organic Standards Board, Organic Certification & Accreditation, and Compliance & Enforcement.
- National List & Petitions:** A section with links to About the National List, Current National List (eCFR), and How to File a Petition.



# The Petition Process

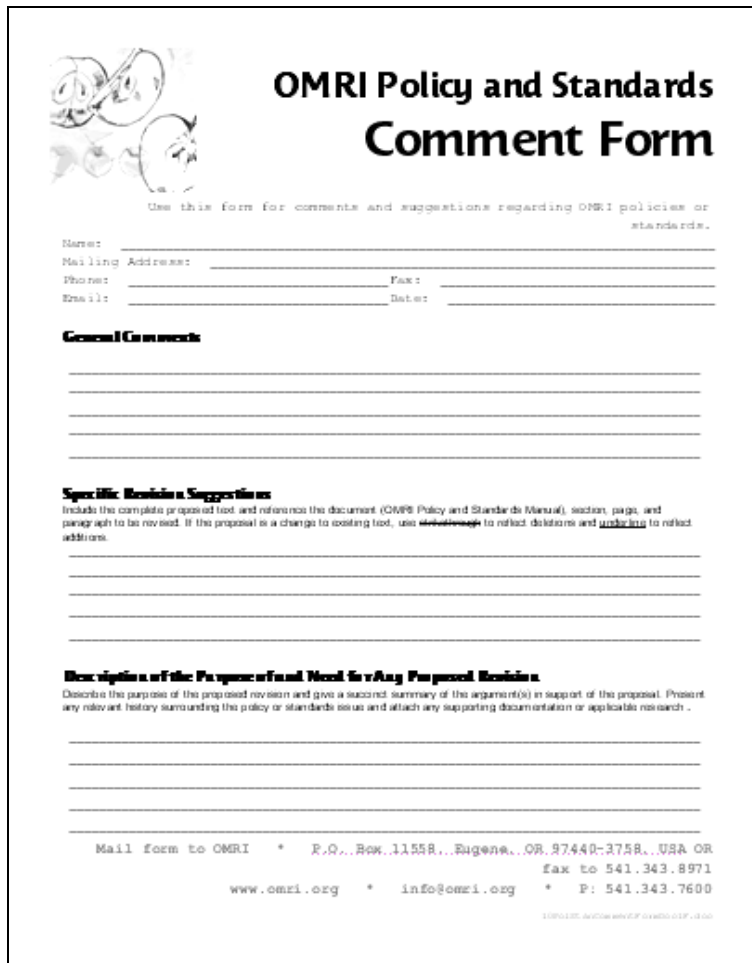



**Possible Outcomes:**  
 Allow for all applications; allow for certain applications; deny petition

**Timeline**  
 2-4 Years once petition is submitted; can vary significantly

# OMRI Comment Form

Comment form can be found at:  
[www.omri.org/contact](http://www.omri.org/contact)





## OMRI Policy and Standards Comment Form

Use this form for comments and suggestions regarding OMRI policies or standards.

Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email: \_\_\_\_\_ Date: \_\_\_\_\_

**General Comments**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Specific Revision Suggestions**

Include the complete proposed text and reference the document (OMRI Policy and Standards Manual), section, page, and paragraph to be revised. If the proposal is a change to existing text, use additions to reflect additions and deletions to reflect deletions.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Description of the Purpose and Need for Any Proposed Revision**

Describe the purpose of the proposed revision and give a succinct summary of the argument(s) in support of the proposal. Present any relevant history surrounding the policy or standards issue and attach any supporting documentation or applicable research.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mail form to OMRI \* P.O. Box 11558, Eugene, OR 97440-3758, USA OR  
fax to 541.343.8971  
[www.omri.org](http://www.omri.org) \* [info@omri.org](mailto:info@omri.org) \* P: 541.343.7600

10/01/02, 4/20/04 REVISED BY: GARDNER, G.P.

OMRI encourages participation by all interested parties in the continuous improvement and development of OMRI policies and standards.



Questions or Comments?

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