



Washington State Dept. of Agriculture Organic Food Program

Certification Fact Sheet

Guidelines for Using Mulches and Weed Barriers

The WSDA Organic Food Program has developed guidelines to help producers understand organic standards as they relate to the use of mulches and weed barriers. USDA Organic Regulations define mulch as any material that serves to suppress weed growth, moderate soil temperature, or conserve soil moisture.

Mulches and weed barriers are production inputs on organic farms. All mulches and weed barriers, synthetic or non-synthetic, must be included in the producer's annual Materials Inventory

ACCEPTABLE MULCHES AND WEED BARRIERS

Non-Synthetic Mulches

Non-synthetic mulches and weed barriers are all acceptable for use in organic production. Some of the most commonly used non-synthetic mulching materials are manures, bark chips, ground corncobs, sawdust, leaves, straw, and "green waste." Green waste is non-synthetic, biodegradable waste from homes and businesses, such as grass or flower cuttings, hedge trimmings, and domestic and commercial food waste. Green waste may pose a contamination risk from persistent prohibited substances; however, the inadvertent presence of such substances in green waste used on organic farms will not jeopardize the producer's organic certification. Producers should exercise caution when sourcing and accepting these types of materials. See the ***NOP Guidance on Allowance of Green Waste in Organic Production Systems*** (listed in Resources, below) for more information.

Synthetic Mulches

Acceptable synthetic mulches include biodegradable paper mulches from recycled sources (ex. black-and-white sections of newspapers), as well as plastic mulches, weed barrier fabrics, or row covers. Synthetic biodegradable mulches must meet specific standards to be acceptable.

In annual cropping systems, plastic mulch, weed barriers, or row covers must be removed after the crop is harvested. In perennial cropping systems, plastic mulch, weed barriers or row covers may be left in the field beyond the harvest season; however, these inputs must be removed before the plastic decomposes or breaks into pieces so that it is not possible to effectively remove all pieces from the soil.

Biodegradable mulch film products must be produced without GMO organisms or feedstocks. Additionally, they must meet specific criteria for compostability, biodegradation, and biobased content as defined at §205.2 (listed in National Organic Standards Citations, below). As of the printing of this publication, no biodegradable film products have been approved for use in organic agriculture. Check with the WSDA Organic Program prior to the use of these materials.



UNACCEPTABLE MULCHES AND WEED BARRIERS

- **Newspaper or other recycled paper with glossy or colored ink.**
- **Polyvinyl chloride (PVC)** - The use of polyvinyl chloride (PVC) as a plastic mulch or row cover is prohibited. PVC is not allowed due to its toxicity. It is made from vinyl chloride, which the Environmental Protection Agency (EPA) has classed as a carcinogen. The PVC manufacturing process releases vinyl chloride and other toxins, notably dioxin and hydrogen chloride, into the environment.
- **Biodegradable mulch film that does not meet the required standards** - Biodegradable mulch film produced with excluded methods, or that do not meet the required specifications for compostability, biodegradation, and biobased content.

NATIONAL ORGANIC STANDARDS CITATIONS

§ 205.206 Crop pest, weed, and disease management practice standard.

(c) Weed problems may be controlled through:

(1) Mulching with fully biodegradable materials;

(6) Plastic or other synthetic mulches: Provided that, they are removed from the field at the end of the growing or harvest season.

§ 205.601(b)(2)(i-ii) Synthetic substances allowed for use in organic crop production.

In accordance with restrictions specified in this section, the following synthetic substances may be used in organic crop production:

(b) As herbicides, weed barriers, as applicable:

(2) Mulches.

(i) Newspaper or other recycled paper, without glossy or colored inks.

(ii) Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC)).

(iii) Biodegradable biobased mulch film as defined in §205.2. Must be produced without organisms or feedstock derived from excluded methods.

§ 205.2 Terms defined.

Biodegradable biobased mulch film. A synthetic mulch film that meets the following criteria:

(1) Meets the compostability specifications of one of the following standards: ASTM D6400, ASTM D6868, EN 13432, EN 14995, or ISO 17088 (all incorporated by reference; see §205.3);

(2) Demonstrates at least 90% biodegradation absolute or relative to microcrystalline cellulose in less than two years, in soil, according to one of the following test methods: ISO 17556 or ASTM D5988 (both incorporated by reference; see §205.3); and

(3) Must be biobased with content determined using ASTM D6866 (incorporated by reference; see §205.3).

RESOURCES

Washington State Department of Agriculture Organic Program

Phone: 360-902-1805 | E-mail: organic@agr.wa.gov

Website: <http://agr.wa.gov/FoodAnimal/Organic/>

USDA National Organic Program (USDA NOP)

Phone: 202-720-3252 | Website: <http://www.ams.usda.gov/AMSv1.0/nop>

NOP Guidance: Allowance of Green Waste in Organic Production Systems NOP 5016

<http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5087122>

Cooperative Extension

Mulching for Weed Management in Organic Vegetable Production

<http://www.extension.org/pages/62033/mulching-for-weed-management-in-organic-vegetable-production>

