



Draft Guidance

Seeds, Annual Seedlings, and Planting Stock in Organic Crop Production

1. Purpose

This guidance describes practices for certified operations to demonstrate their proactive efforts to procure all organic seeds, annual seedlings, and annual and perennial planting stock in support of their Organic System Plan (OSP). This guidance describes the form, quality, or quantity criteria that need to be addressed when seeds or planting stock are commercially unavailable as organic to the producer. This guidance also clarifies considerations regarding the inputs and substances routinely used to optimize the performance of seeds and plant materials during propagation.

2. Scope

This guidance applies to all National Organic Program (NOP) certifying agents, certified and exempt organic crop producers, and suppliers of seeds, annual seedlings, and annual or perennial planting stock.

3. Background

The NOP regulations at 7 CFR § 205.204 require that organic producers use organic seeds, annual seedlings, and planting stock. The regulations allow producers to utilize non-organic seeds and annual or perennial planting stock when organic varieties are not commercially available.

In November 2008, the National Organic Standards Board (NOSB) provided a recommendation to the NOP that outlined specific concepts and procedures for determining the commercial availability of seeds. The NOSB emphasized that utilizing organic seed is a fundamental part of supporting a healthy, viable organic seed industry. There has been considerable public comment at the business meetings of the NOSB in support of these goals. In addition, a 2002 NOSB recommendation also addressed the use of planting stock for the production of perennial crops grown as annuals, such as raspberries or strawberries, when equivalent organic varieties are not commercially available. This guidance implements these NOSB recommendations.

4. Policy

Producers must clearly describe and document their strategies to procure organic seeds, annual seedlings, and annual or perennial planting stock in their OSP. Producers must also provide clear documentation regarding the inputs and materials used to support the performance of their seeds and plant materials during propagation. Certifying agents must assess the criteria, procedures, documentation, and progress of certified operations as they source seeds, annual seedlings, and annual or perennial planting stock on an annual basis. Certifying agents must



review all substances and inputs used to support propagation of seeds and planting materials for compliance with the NOP regulations and to protect organic integrity and prevent contamination with prohibited substances. Each of these concepts is described in more detail below.

4.1 Certified Operations: General Considerations and Documentation Regarding the Sourcing of Seeds, Annual Seedlings, and Annual and Perennial Planting Stock

- a. Certified operations must use organic seed, annual seedlings, and planting stock per § 205.204.
- b. Certified operations producing edible sprouts must use organic seed without exception per § 205.204(a)(2).
- c. Certified operations may use non-organic seed and planting stock if organic seeds and planting stock are not commercially available as defined in § 205.2 in an appropriate form, quality, or quantity to fulfill an essential function in organic production. Price cannot be a consideration.

The following considerations could be acceptable justifications for sourcing non-organic seeds and planting stock.

1. **Form Considerations:** Site-specific agronomic or marketing characteristics required by the operation. Examples of these characteristics may include, but are not limited to: number of days until maturity and harvest; color, flavor, moisture, chemical, or nutrient profiles of the variety of the harvested crop; weight or size of harvested crop; disease and pest resistance of any part of the plant; ambient temperature range tolerance of plant, height of plant; and the plants' place in the crop rotation.
 2. **Quality Considerations:** Examples may include, but are not limited to, germination rate of the seed; presence of weed seeds in the seed mix; shelf life and stability of the seeds; and disease and pest resistance.
 3. **Quantity Considerations:** i.e. Are the quantities available provided in sufficiently large or small amounts given the scale of the operation?
- d. Certified operations should contact a minimum of three seed, or planting stock sources to ascertain the availability of organic seed or planting stock.
 1. Sources should include companies that offer organic seeds and planting stock.
 2. Documentation regarding this search should be maintained as a part of recordkeeping.



- e. Certified operations must establish a documented procedure as part of their Organic System Plan (OSP) that includes:
 - 1. The identity of the seeds and planting stock sought;
 - 2. The search and procurement methods used to source organic varieties; and
 - 3. The records that demonstrate the use of organic seeds, and planting stock, or the commercial unavailability of organic seeds, annual or perennial planting stock.
 - i. Records may include, but are not limited to: letters, faxes, email correspondence, and phone logs from seed suppliers and companies; seed catalogs; receipts; and receiving documents, invoices, and inventory control documents.
- f. Per § 205.204(a)(3), certified operations may use non-organic annual seedlings to produce an organic crop only when a temporary variance has been granted by the AMS Administrator in accordance with § 205.290(a)(2) due to an extreme weather event or business disruption beyond the control of the producer.¹

4.2 Certified Operations: Specific Considerations Regarding the Sourcing of Seeds, Annual Seedlings, and Annual and Perennial Planting Stock

- a. Certified operations should consider which category (seed, annual seedling, or planting stock (either annual or perennial)) best describes their inputs according to the definitions below. Operations should also describe the following source, treatment, and harvest requirements, as applicable, for these inputs in their OSP.
- b. **Seed**
 - 1. **Definition:** The part of a flowering plant that contains the embryo with its protective coat and stored food that develops into a new plant.
 - 2. **Source:** Certified and exempt operations must use organic seed per § 205.204, unless they are not commercially available as organic per as defined in § 205.2.
 - i. Organic operations producing edible sprouts must use organic seed *without exception* per § 205.204(a)(2).

¹ Please see procedures for requesting a temporary variance in the *NOP Program Handbook: Guidance and Instructions for Accredited Certifying Agents and Certified Operation, NOP 2606 – Processing Requests for Temporary Variances*.



3. **Seed Treatments or Preparations:** The application of materials or processes to seeds to optimize their performance through: 1) improving germination rates; 2) optimizing ease of handling and accuracy of planting; 3) eradicating seedborne or protecting from soilborne pathogens; or 4) providing nutrients or microbial stimulants.

i. All materials and processes used in the preparation or treatments of seed need to be described in the OSP. Allowed treatments include:

- a. Peracetic acid is specifically allowed for use in disinfecting seed per § 205.601(a)(6).
- b. Hydrogen chloride, is specifically approved as a seed treatment for use on organic seeds on § 205.601(n), and only for the delinting of cotton seed for planting.
- c. Nonsynthetic substances that are not prohibited are allowed as seed treatments.
- d. Chlorine materials may be used as per 205.601(a)(2) provided residual levels of chlorine in water in contact with seed do not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.
- e. Other synthetic substances listed for appropriate uses in § 205.601 (e.g. for pest or disease control, or as a soil or plant amendment).

ii. Types of Treatments or Preparations

- a. **Priming:** The use of water to activate the early stages of germination. Some seed varieties may benefit from hot water treatments for pathogen control.
- b. **Pelleting:** A clay coating applied to seed to increase its size and modify its shape into a more uniform ball. Pelleting allows for more even and efficient direct seeding of fields or containers either by hand or mechanically with the use of seeding equipment calibrated to the specific sizes and shapes of the pelleted seed. Ingredients used in pelleting must be nonsynthetic or included on the National List at § 205.601 for an appropriate use.
- c. **Inoculant Preparations:** Bacteria that fix nitrogen from the air and soil that are commercially prepared for use with legumes during seeding. The materials used in *Rhizobium* or other



microbial preparations cannot be genetically modified per the prohibition of excluded methods as defined by § 205.105 (e) and § 205.2.

d. **Pesticides, including Fungicides, Herbicides and Insecticides:**

All pesticides used as seed treatments must be compliant for organic production, including inert and active ingredients. Botanical or biological preparations cannot be genetically modified per prohibition for excluded methods as defined by § 205.105 (e) and § 205.2.

c. **Annual Seedling or Transplant**

1. **Definitions:**

i. **Annual Seedling** - A plant grown from seed that will complete its life cycle or produce a harvestable yield within the same crop year or season in which it was planted.

ii. **Transplant** - A seedling which has been removed from its original place of production, transported, and replanted.

2. **Source:** Annual seedlings or transplants must always be organic per § 205.204, unless producer has been granted a temporary variance by the Agricultural Marketing Services (AMS) Administrator in accordance with § 205.290(a)(2) due to an extreme weather event or business disruption beyond the control of the producer.

d. **Annual or Perennial Planting Stock**

1. **Definition:** Any plant or plant tissue other than annual seedlings but including rhizomes, shoots, leaf or stem cuttings, roots, or tubers, used in plant production or propagation.

i. Annual planting stock includes seed potatoes, onion sets, garlic bulbs, sweet potato slips, and other propagation material not originating from seed.

ii. Perennial planting stock produces plants that live for more than two years and have an annual regeneration of the vegetative-reproductive cycle. Examples of perennial planting stock include root divisions, wood cuttings, tissue culture plantlets, and nursery plants in containers. Examples of perennial crops include tree fruits, bananas, grapes, cane berries and herbaceous perennials such as mint and lavender. Certain perennial crops, such as strawberries or raspberries,



may be grown by certified operations as annuals rather than perennials. On these operations, new planting stock is used each year to produce one harvest season of an organic crop. In such cases, the planting stock should be considered annual planting stock, and may be sourced per the requirements at § 205.204(a)(1-2).

2. **Source:** Certified and exempt operations must use organic planting stock per § 205.204, unless they are not commercially available as organic as defined in § 205.2.
3. **Harvest:** Crops from organic annual or perennial planting stock may be sold, labeled or represented as organic at any time. Crops from nonorganic perennial planting stock may be sold, labeled or represented as organic after 12 months of organic management.

4.3 Accredited Certifying Agents

- a. Certifying agents must verify the procedures that certified operations utilize to obtain and plant organic varieties suitable for their operations as part of their annual review of the organic system plan.
- b. Certifying agents shall verify the commercial availability requirements on an annual basis.
- c. Certifying agents should verify an operation's progress in obtaining organic seeds, planting stock and transplants by comparing current source information to previous years.
- d. Certifying agents must verify the organic compliance of all inputs, seeds, annual seedlings, and planting stock used in certified operations.

5. References

5.1 Definitions

Organic Integrity. The quality of an organic product or system which is achieved through verified adherence to organic standards from farm production through all points of handling and processing to the point of final sale to the consumer.

5.2 NOP Regulations

§ 205.2 Terms defined.



Annual seedling. A plant grown from seed that will complete its life cycle or produce a harvestable yield within the same crop year or season in which it was planted.

Commercial availability. The ability to obtain a production input in an appropriate form, quality, or quantity to fulfill an essential function in a system of organic production or handling, as determined by the certifying agent in the course of reviewing the organic plan.

Excluded methods. A variety of methods used to genetically modify organisms or influence their growth and development by means that are not possible under natural conditions or processes and are not considered compatible with organic production. Such methods include cell fusion, microencapsulation and macroencapsulation, and recombinant DNA technology (including gene deletion, gene doubling, introducing a foreign gene, and changing the positions of genes when achieved by recombinant DNA technology). Such methods do not include the use of traditional breeding, conjugation, fermentation, hybridization, in vitro fertilization, or tissue culture.

Planting stock. Any plant or plant tissue other than annual seedlings but including rhizomes, shoots, leaf or stem cuttings, roots, or tubers, used in plant production or propagation.

Transplant. A seedling which has been removed from its original place of production, transported, and replanted.

§ 205.204 Seeds and planting stock practice standard.

(a) The producer must use organically grown seeds, annual seedlings, and planting stock: *Except, That,*

(1) Nonorganically produced, untreated seeds and planting stock may be used to produce an organic crop when an equivalent organically produced variety is not commercially available:

Except, That, organically produced seed must be used for the production of edible sprouts;

(2) Nonorganically produced seeds and planting stock that have been treated with a substance included on the National List of synthetic substances allowed for use in organic crop production may be used to produce an organic crop when an equivalent organically produced or untreated variety is not commercially available;

(3) Nonorganically produced annual seedlings may be used to produce an organic crop when a temporary variance has been granted in accordance with §205.290(a)(2);

(4) Nonorganically produced planting stock to be used to produce a perennial crop may be sold, labeled, or represented as organically produced only after the planting stock has been maintained under a system of organic management for a period of no less than 1 year; and

(5) Seeds, annual seedlings, and planting stock treated with prohibited substances may be used to produce an organic crop when the application of the materials is a requirement of Federal or State phytosanitary regulations.

5.3 NOP Program Handbook: Guidance and Instructions for Accredited Certifying Agents & Certified Operations

NOP 2606 – Processing Requests for Temporary Variances