



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 planting stock in support of their organic system plan (OSP). This guidance clarifies “equivalent variety” and also describes the form, quality, or quantity criteria that need to be met before seeds or planting stock can be categorized as commercially unavailable as organic. Further, this guidance outlines considerations regarding the inputs and substances routinely used during crop production.

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 planting stock.

3. Background

The USDA organic 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 planting stock when equivalent organic varieties are not commercially available.

In August 2005 and November 2008, the National Organic Standards Board (NOSB) provided recommendations that outlined specific concepts and procedures for determining commercial availability of organic seeds and planting stock. These recommendations also identified the responsibilities of the NOP, certifying agents, and operations for promoting and sourcing organic seeds and planting stock and emphasized that utilizing organic seed is a fundamental part of supporting a healthy, viable organic seed industry. Considerable public comment at NOSB meetings has supported these goals. This guidance represents NOP’s current thinking on this topic.

4. Policy

Producers should develop and follow procedures for procuring organic seeds, annual seedlings, and planting stock and maintain adequate records as evidence of these practices in their organic system plan (OSP). Producers must also provide clear documentation regarding the inputs and materials used during crop production (as required at § 205.201(a)(2)). Certifying agents must assess procedures and documentation of certified production and handling operations as they source seeds, annual seedlings, and planting stock on an annual basis. Each of these concepts is described in more detail below.



4.1 Sourcing of Seeds, Annual Seedlings, and Planting Stock

- 4.1.1 Certified operations must use organic seed, annual seedlings, and planting stock in accordance with the requirements at § 205.204.
- 4.1.2 Certified operations may use non-organic seed and planting stock only if equivalent organically produced varieties of organic seeds and planting stock are not commercially available.
 - a. Commercial availability is defined at § 205.2 and refers to the ability to obtain a production input, in this case seed or planting stock, in an appropriate form, quality, or quantity to fulfill an essential function in organic production. For the purposes of this exception, an “equivalent variety” is a variety of the same “type” (e.g. head lettuce types versus leaf lettuce types) or has similar agronomic or marketing characteristics needed to meet site specific requirements for an operation. These characteristics may include, but are not limited to: number of days until harvest; color, flavor, moisture, chemical, or nutrient profiles of the variety of the harvested crop; vigor or yield of harvested crop; regional adaptation, disease and pest resistance, or the plant’s utility in a crop rotation.
 - b. Price cannot be a consideration for determination of commercial availability.
- 4.1.3 The following considerations could be acceptable to justify use of non-organic seeds and planting stock as not commercially available. These considerations must be described by the operation in their organic system plan (OSP), pursuant to § 205.201(a)(2), and approved by the certifying agent.
 - a. Form Considerations: Examples of forms may include, but are not limited to, treated or non-treated seeds or planting stock, use of pelleted seed, or use of bare root nursery stock or container plants.
 - b. 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.
 - c. Quantity Considerations: Producers may provide evidence that quantities are not available in sufficiently large or small amounts given the scale of the operation.
- 4.1.4 For certified operations producing edible sprouts, there is no exception to the requirement to use organic seed, as stated at § 205.204(a)(1).
- 4.1.5 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 (§ 205.204(a)(3)).¹

- 4.1.6 Use of non-organic planting stock to produce organic crops is subject to commercial availability as per § 205.204(a)(1). If planting stock is from a non-organic source and is used to produce perennial crops, then that *planting stock* may be sold, labeled or represented as organic planting stock after 12 months of organic management (§ 205.204(a)(4)).

4.2 Recordkeeping for Organic Producers

- 4.2.1 The following records should be maintained by organic producers:

- a. A list of all seed and planting stock, indicating any non-organic seeds or stock used, and the justification for their use including lack of equivalent variety, form, quality or quantity considerations. Records describing on-farm trials of organic seed and planting stock can be used to demonstrate lack of equivalent varieties for site specific conditions.
- b. The search and procurement methods used to source organic seed and planting stock varieties, including:
 1. Evidence of efforts made to source organic seed, including documentation of contact with three or more seed or planting stock sources to ascertain the availability of equivalent organic seed or planting stock. Sources should include companies that offer organic seeds and planting stock.
 2. Records may include, but are not limited to: letters, faxes, email correspondence, and phone logs from seed suppliers and companies; seed catalogs; searches of organic seed databases; receipts; receiving documents, invoices, and inventory control documents.

4.3 Inputs Used for Treatment of Seeds or Planting Stock

- 4.3.1 Substances used in the treatment of seed and planting stock 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).

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*.



- b. Hydrogen chloride is specifically allowed for delinting cotton seed for planting per § 205.601(n).
- c. Chlorine materials may be used per § 205.601(a)(2). Use of chlorine products in handling of seeds on-farm can be considered a production use that is not in direct contact with the crop, provided the treatment is followed by immediate rinsing with potable water that does not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.²
- d. Other synthetic substances listed for appropriate uses in § 205.601 (e.g. for pest or disease control, or as a soil or plant amendment).
- e. Nonsynthetic substances that are not prohibited are allowed as seed or planting stock treatments.

4.3.2 Examples of types of treatments that should be reviewed by the certifying agent:

- a. 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.
- 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. Inoculants: 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.

4.3.3 Substances used by a seed or planting stock purveyor prior to the harvest of their non-organic seeds or non-organic planting stock for sale and use in organic production are not considered “treatment”. Substances that are used by a seed or planting stock purveyor for seed cleaning and preparation (e.g. trisodium phosphate and chlorine solutions) after they harvest their non-organic seeds for sale in organic production are also not considered “treatment”, since they do not remain on the seed when it is planted. These substances do not need to be

² Please see *NOP 5026 - The Use of Chlorine Materials in Organic Production and Handling*.



described in the OSP by the certified operation and do not require review by the certifying agent.

4.4 Role of Certifying Agents

- 4.4.1 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 OSP.
- 4.4.2 Certifying agents must review substances and inputs used to treat seeds and planting stock for compliance with the USDA organic regulations.
- 4.4.3 Certifying agents shall verify the commercial availability requirements on an annual basis, in their review of the OSP, pursuant to § 205.402(a)(1).
- 4.4.4 Certifying agents should review an operation's progress in obtaining organic seeds, planting stock and transplants by comparing current source information to previous years.

5. References

5.1 USDA Organic 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.

5.2 NOP Program Handbook

NOP 2606 – Processing Requests for Temporary Variances

NOP 5026 – The Use of Chlorine Materials in Organic Production and Handling

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