

Substances Used in Post-Harvest Handling of OCal Products

1. Purpose

This guidance clarifies, for registered certifying agents (certifiers), certified OCal operations, and certification applicants: 1) what substances may be used in post-harvest processing; and 2) the regulatory requirements for facility pest management.

Appendix A, Examples of Post-Harvest Handling Substances Affected by this Guidance, provides examples of post-harvest substances affected by this guidance and Appendix B, Questions and Answers: Substances Used in Post-Harvest Handling of OCal Products, lists frequently asked questions and answers about using this guidance.

2. OCal Regulations, Title 3 California Code of Regulations (3 CCR)

3 CCR § 10000. Definitions.

3 CCR § 10205. Crop rotation practice standard.

3 CCR § 10208. Facility pest management practice standard.

3. Policy and Procedure

3.1. A substance may be used in post-harvest handling/processing if it falls into one of the following categories¹:

- Synthetic substances that are listed in § 205.601 of the National List of Allowed and Prohibited Substances (National List) specifically for post-harvest use may be used for handling/processing on farm or at a certified processing or distribution operation (e.g., lignin sulfonate or sodium silicate).

Natural (nonsynthetic) substances allowed for use in crop production that are not restricted or prohibited in § 205.602 of the National List may be used for post-harvest handling/processing on farm or at a certified processing or distribution operation.

¹ The use of any substance must comply with the U.S. Environmental Protection Agency (EPA) or U.S. Food and Drug Administration (FDA) requirements, as applicable.

3.2. All inert ingredients used in post-harvest pest control substances on cannabis must be either nonsynthetic and not prohibited in § 205.602 of the National List or allowed in § 205.601(m) of the National List.

3.3. Facility pest management.

The OCal regulations also provide for the use of certain substances in facility pest management, under certain circumstances, even though they are not on the National List. Section 10208 of the OCal regulations describes an order of preference for facility pest management practices. Cultivators or distributors must first apply management practices to prevent or control pests as described in § 10208(a) and (b) of the OCal regulations, including the use of lures and repellents containing nonsynthetic or synthetic substances that are consistent with the National List. If these practices are not adequate, then a nonsynthetic or synthetic substance “consistent with the National List” may be applied (see § 10208(c) of the OCal regulations).

The phrase “consistent with the National List” does not specify which section of the National List should be referenced in making this determination. For instance, materials such as pheromones, sticky traps, boric acid, and Vitamin D3 are listed in § 205.601 of the National List for use in crop production. Therefore, these substances would be consistent with the National List for facility pest control purposes. If none of the practices listed in § 10208 of the OCal regulations are effective, the handler may use substances that are not on the National List, provided that there is no contact with OCal cannabis or nonmanufactured cannabis products, the certifier and producer agree on the use of the substance, and its use complies with § 10208(d) of the OCal regulations.

3.3.1. Section 10208(c) of the OCal regulations allows cultivators and distributors to use nonsynthetic or synthetic substances consistent with 7 CFR § 205.601 and § 205.602 in the National List in facility pest management.

3.3.2. Any EPA-registered pesticide substance used in a facility pest application must be labeled for that use.

3.3.3. All inert ingredients in facility pest management products permitted under § 10208(c) of the OCal regulations must be either nonsynthetic or included in 7 CFR § 205.601(m).

3.3.4. Cultivators and distributors must demonstrate compliance with § 10208 of the OCal regulations in their OCal system plans.

3.3.5. Cultivators and distributors may use substances that are not on the National List for facility pest management, provided that there is no contact with OCal cannabis or nonmanufactured cannabis products, they are used in accordance with § 10208(d) of the OCal regulations, and the certifier agrees to the use and method of application of the substance.

4. References

National Organic Program Regulations, Title 7 Code of Federal Regulations (7 CFR part 205)

7 CFR § 205.601 – § 205.602. National List of Allowed and Prohibited Substances (National List).

Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §301 et seq.

Other Definitions (adapted from *FDA Guidance for Industry: Antimicrobial Food Additives, July 1999*):

- *Facility*. A structure or site where production, handling, processing, packaging or storage of organic products occurs. A facility could include packing lines, wash lines, storage units, coolers, freezing plants, feed mills, milk houses, production structures such as housing for livestock, greenhouses and mushroom buildings.
- *Post-harvest substances*. Substances used in the post-harvest handling of raw agricultural commodities which are not further processed, either on farm or in handling facilities. This includes substances used for flotation, washing, sanitizing, cooling, storing, and for facility pest management.
- *Post-harvest handling*. Post-harvest handling is the act of handling raw agricultural commodities without further processing. Post-harvest handling activities preserve the essential form of the product. Examples of these activities include, but are not limited to: flotation, washing, sanitizing, cooling, packing, separation from foreign objects or plant parts (e.g., cleaning grain), removal of stems leaves or husks, and storage and pest control practices. “Further processing” includes actions that change the essential form of the product such as chopping, peeling, cutting, waxing, coating, drying, or combining with other ingredients.

Appendix A

Examples of Post-Harvest Handling Substances Affected by this Guidance

1. Diatomaceous earth is a natural substance used in crop pest management. It is regulated by EPA as a pesticide.
 - Allowed as a nonsynthetic substance permitted in crop production.
 - Allowed for post-harvest handling on raw agricultural products since there are no restrictions in 7 CFR § 205.602.
 - Inert ingredients must either be compliant with 7 CFR § 205.601(m), or nonsynthetic.
 - Must be used in accordance with label directions.
2. Pyrethrum, *Bacillus thuringiensis*, or other botanical or biological pesticides.
 - Allowed as nonsynthetic substances for use in crop production, provided that the EPA label permits its use.
 - Allowed for post-harvest use on raw agricultural products provided that the label permits its use.
 - Inert ingredients must either be compliant with 7 CFR § 205.601(m), or nonsynthetic.
3. Copper sulfate, narrow range oils, elemental sulfur, insecticidal soaps.
 - Allowed in 7 CFR § 205.601 as synthetic substances permitted for insect or disease control of crops.
 - Not allowed for post-harvest use in direct contact with organic and OCal products, since these synthetic substances are not on the National List for post-harvest use.
 - Could be used in compliance with 3 CCR § 10208(c) for handling facility pest management.
4. Clove oil is considered a pesticide that is exempt from EPA registration requirements.
 - Allowed as a nonsynthetic substance permitted in crop production.
 - Allowed for post-harvest handling since there are no restrictions in 7 CFR § 205.602.
 - Inert ingredients must either be compliant with 7 CFR § 205.601(m), or nonsynthetic.
5. Ethanol and isopropyl alcohol.
 - Allowed for crop production as synthetic substances in 7 CFR § 205.601(a) as algicides, sanitizers and disinfectants for crop production.
 - Not allowed in direct contact with food products for post-harvest use, since they are synthetic and not listed for that use. (Note—Organic ethanol is permitted for handling use).

- Could be used in compliance with 3 CCR § 10208(c) for facility pest management.

6. Boric Acid

- Allowed for crop production as a synthetic substance in 7 CFR § 205.601(e)(3) as insecticides, structural pest control, no direct contact with organic food or crops.
- Not allowed in direct contact with food products for post-harvest use, since they are synthetic and not listed for that use.
- Could be used in compliance with 3 CCR § 10208(c) for facility pest management, provided there is no direct contact with organic and OCal products, as per the restriction at 7 CFR § 205.601(e)(3).

7. Mouse bait stations that are baited with warfarin (an anticoagulant rodent poison)

- Prohibited for use in crop production, since it is a synthetic substance, not included in 7 CFR § 205.601.
- Not allowed in direct contact with food products for post-harvest use, since they are synthetic and not listed for that use.
- Could be used in compliance with 3 CCR § 10208(d) for facility pest management, provided there is no contact with organic products or ingredients, and the certifier approves the intended use and plan for application. The producer must demonstrate that preventive management practices, physical controls, and use of substances on the National List are not effective, as per 3 CCR § 10208(a)-(c).

Appendix B

Questions and Answers: Substances Used in Post-Harvest Handling of OCal Products

1. Can I use this substance for post-harvest handling of raw cannabis?

- The substance is listed in 7 CFR § 205.601 (crops), with an annotation for post-harvest use:
✓ YES
- The substance is nonsynthetic, and is not prohibited or restricted in 7 CFR § 205.602:
✓ YES
- The substance is synthetic, and is listed in 7 CFR § 205.601 for crop use, without annotation for post-harvest use:
✓ NO

2. Can I use this substance for facility pest control?^{2 3}

- The substance is listed in 7 CFR § 205.601 without any restrictions preventing use:
✓ YES
- The substance is nonsynthetic, and is not listed in 7 CFR §205.602:
✓ YES
- The substance is synthetic, not on the National List:
 - May be used by handlers/processors (including cultivators) when the substance is not in contact with OCal cannabis or nonmanufactured cannabis products, and with the certifier's approval, pursuant to 3 CCR § 10208(d).

² All pesticides must have an EPA registration or exemption from registration for use in facility pest control.

³ Pursuant to 3 CCR § 10208(a)(b), management practices must be demonstrated before the substance may be used.