



ASTA Organic Toolkit for the U.S. Organic Market

Organic Overview

Q: What is organic?

A: In the U.S., [certified organic foods](#) must be grown and processed according to federal U.S. Department of Agriculture (USDA) regulations addressing, among many factors, soil quality, animal raising practices, pest and weed control, and use of additives. Organic producers rely on natural substances and physical, mechanical, or biologically based farming methods to the fullest extent possible. The Organic Foods Production Act, [7 U.S.C. § 6504](#), creates a national standard for organic food production, which states that for a product: [t]o be sold or labeled as an organically produced agricultural product under this chapter, an agricultural product shall—

- (1) have been produced and handled without the use of synthetic chemicals, except as otherwise provided in this chapter;
- (2) except as otherwise provided in this chapter and excluding livestock, not be produced on land to which any prohibited substances, including synthetic chemicals, have been applied during the 3 years immediately preceding the harvest of the agricultural products; and
- (3) be produced and handled in compliance with an organic plan agreed to by the producer and handler of such product and the certifying agent.



Organic Certification

Q: What is the National Organic Program?

A: The USDA [National Organic Program \(NOP\)](#) is a government program that develops the rules & regulations for the production, handling, labeling, and enforcement of all USDA organic products. The NOP accredits third-party certifying agents to certify organic operations. The NOP also maintains a [Handbook](#) that includes guidance, instructions, policy memos, and other documents that communicate the organic standards. The [USDA FAQ](#) contains many fact sheets on different aspects of organic certification.

Q: What is organic certification?

A: Organic certification is a certification process for producers of organic food and other organic agricultural products. In general, any business directly involved in food production can be certified, including seed suppliers, farmers, food processors, retailers and restaurants. To do business in the organic sector, you need to become an [organic certified handler](#).



Q: Do I need to be an organic certified handler?

A: That likely depends on your business size and products. If you make a product and want to claim that it, or its ingredients, are organic, your product probably needs to be certified. Depending on your business size and products, while you may not need to [become a certified handler](#), there are [benefits to becoming an organic](#) certified handler that may be best for your business. There are certain exemptions and exclusions from the certification requirements, found in 7 CFR § 205.101.

Q: How do I become an organic certified handler?

A: In the U.S., the path to [organic certification](#) requires working with an organic certifier in order to label and represent a products as organic. A company can also [certify to U.S. organic standards](#) even if the company is located internationally.

Labeling Regulations

Q: How are organic products labeled?

A: The organic program establishes the requirements for [organic labeling](#). If you make a product and want to claim that it, or its ingredients are organic, you need to follow the organic labeling standards in 7 CFR Part 205 Subpart D. There are several different organic labeling standards, including “100 percent organic,” “organic,” and “made with organic,” which each have their own specific standards. There are also standards for products with less than 70% organic ingredients, for which the term organic may only be used in the ingredient statement or in a statement on the information panel identifying the percentage of organic ingredients.

Labeling Regulations cont...

Q: What are the organic production and handling standards?

A: The [production and handling standards](#) are the standards by which organic products must be certified. All organic operations must comply with all requirements in the USDA organic regulations. Organic itself is a labeling term that indicates that the food or other agricultural product has been produced and processed using approved methods.

Q: Can GMOs be used in organic products?

A: No, genetically modified organisms, or GMOs, known also as bioengineered, or BE food, [are prohibited](#) in organic products. Additionally, certified organic foods are exempt from the U.S. bioengineered labeling disclosure regulations. Organic is considered Non-GMO.

Q: What non-certified substances are allowed in the production of organic products?

A: USDA organic regulations specify which substances, production and processing requirements are allowed and prohibited in organic products. 100% organic products may not contain any non-organic ingredients or processing aids. For products represented as “organic” or “95% organic,” the only non-organic substances allowed are on the [National List of Allowed and Prohibited Substances](#), or National List, and any such substances must be limited to no more than 5% by weight or fluid volume, excluding water and salt. The National List identifies synthetic substances that may be used in organic products (7 CFR § 205.601), as well as the nonsynthetic (natural) substances that may not be used in organic crop production. The National List also provides strict restrictions on various fumigants for pest control, and identifies a limited number of non-organic substances that may be used in or on processed organic products (7 CFR §§ 205.605 and 205.606).



Q: What is the National Organic Standards Board?

A: The National Organic Standards Board (NOSB) is a Federal Advisory Board made up of 15 public volunteers from across the organic community. The NOSB considers and makes recommendations on a wide range of issues involving the production, handling, and processing of organic products. The NOSB makes recommendations to the NOP about which substances should be included on the National List.

Q: What happens if I violate organic labeling laws?

A: If you violate the organic labeling laws, you may be subject to [enforcement action](#). Additionally, if you are a certified handler and you violate the organic labeling laws, your certification may also be suspended or revoked. The NOP has compiled a list of information about fraudulent certificates that have been publicly announced [here](#).

Labeling and regulations cont...

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Q: What about fraud and organic production?

A: Organic fraud is when a product is falsely represented as certified organic, which is a violation of federal organic regulations. Using fraudulent documents to market, label, or sell non-organic agricultural products as organic is punishable by fines of up to \$17,952 for each violation. Common fraudulent behavior to watch out for in the spice industry includes the mixing of organic and non-organic products together and then selling the final product as organic, falsifying field yields, and selling products under a false organic certification. In March 2023, USDA issues a [final rule](#) intended to strengthen organic enforcement. The final rule imposes additional recordkeeping and traceability requirements, unannounced on-site inspections of certified operations, and other provisions intended to improve organic integrity. An [ASTA FAQ](#) document is available to the membership on the rule's impact to the spice industry.

International Importing and Exporting

Q: What are organic equivalency agreements and how do they work?

A: Organic equivalency is when two countries recognize each other's organic program as being equivalent. If two countries are equivalent, organic products can be sold in either country with just one organic certification. If you produce organic products in a country other than the U.S., and that country has an [equivalency agreement](#) with the U.S., your products will fall under an equivalency agreement unless an exception specifically states otherwise. This may reduce the number of organic certifications you need to maintain. As of June 2020, the U.S. currently maintains organic equivalence arrangements with Canada, the European Union, Japan, Taiwan, Korea and Switzerland.



Q: How do I export organic products from the U.S?

A: The AMS FAQ on Exporting Organic Product from the U.S. explains the rules for how to [export organic products](#) from the U.S., to countries with valid equivalency agreements as well as other countries.

International Importing and Exporting...

Q: How do I import organic products into the U.S.?

A: The AMS FAQ on Importing Organic Products into the U.S. addresses how to [import organic products](#) from countries with a valid equivalency agreement as well as those without. Products imported under these agreements must have an NOP import certificate with each shipment.

Treatment for Organic Spices

Q: What treatment methods are approved for use to treat microbes, such as Salmonella, on organic spices?

A: Treatment methods for use in organics primarily involve heat, and steam treatment. These differ from the main treatment methods for conventional spices, which can include ethylene oxide, irradiation, and steam. Of the three main treatment methods for conventional spices—ethylene oxide, irradiation, steam—only steam treatment can be used for certified organic foods. NOP regulations make clear that “100% organic” and “organic” products must not be produced using ionizing radiation. 7 CFR § 205.301(f)(2). Further, NOP regulations prohibit the use of synthetic chemicals for use on organic products unless specifically permitted, and ethylene oxide is only authorized for use as a plant growth regulator for regulation of pineapple flowering. 7 CFR § 205.601(k).

Ethylene oxide (EtO) is therefore not allowed for treatment of organic spices. Alternative methods are constantly being developed and may be available for use on organic spices depending on the methodology and efficacy.



Q: What other microbial standards are available for organic spices products?

A: It is not uncommon to find higher total plate, yeast and mold, and coliform counts on organic spices compared to conventional spices, based on treatment methods used, though these counts can vary significantly between spices and companies. It is important to note that the presence of these microorganisms does not necessarily pose a food-safety concern. As with all spices, organic spices must comply with FDA's regulations, including the Preventive Controls for Human Food regulation (21 CFR Part 117), including being subject to a validated treatment method to address *Salmonella* and other microbiological hazards.

In terms of other non-pathogenic microbiological specifications, such as total plate count, yeast, and mold, there are no established U.S. regulatory or ASTA limits, however customers may establish their own specific acceptance criteria. Additionally, the American Herbal Products Association (APHA) has issued [recommended](#) microbial limits for botanical ingredients. While this guidance is useful for industry-wide uniformity, it is ultimately at the manufacturer's discretion to establish or adhere to such microbial specifications.

Treatment of Organic Spices cont...

Q: What treatment methods are approved for use to manage insects in / on organic spices?

A: The standard for organic crop pest, weed, and disease management is outlined in [7 CFR §205.206.7](#) CFR §205.206(b) specifies that pest problems in organic products may be addressed through mechanical or physical methods, including the introduction of predators of pest species and the use of non-synthetic controls such as traps and lures. In the event that the practices outlined in the regulation are not sufficient to prevent or control pests, a biological or botanical substance included on the [National List of Allowed and Prohibited Substances](#) may be applied to the organic product.

Various non-chemical control measures for insects in organic spices have been successfully implemented by the spice industry, including the use of:

1. Modified Atmosphere Chambers: Modified atmosphere chambers alter the concentrations of key atmospheric gases, such as oxygen (O₂), carbon dioxide (CO₂), nitric oxide (NO), and ozone (O₃) to manage target pests in/on a given food matrix.
2. Temperature Control: Deep freezing of spices may aid in postharvest disinfestation. However, spice-specific temperature data is needed to determine the freezing conditions to maximize insect control.
3. Pheromone Traps: Pheromones can be used to trap pests or disrupt their reproduction. Pheromone traps may be inserted into spice shipment containers upon arrival to attract insects and determine whether there is an infestation.

These methods may be used in isolation or in combination to maximize the effectiveness of a company's insect management strategy. Additional information on organic pest management is available in this USDA [tip sheet](#).

Pesticide Screening

Q: What are the responsibilities of an organic certifier in regards to pesticide testing?

NOP regulations in section [205.607\(c\)](#) require that certifiers conduct periodic testing of agricultural products to be sold, labeled, or represented as organic. In a [letter](#) on February 28, 2013, the NOP clarified that certifiers should conduct residue testing on a minimum of 5% of their certified operations yearly.

Inspectors may collect sampling of organic product onsite during inspections and send the sample for analysis by an ISO-accredited laboratory. All fees associated with pesticide residue testing as part of NOP's regulatory requirements are paid by the certifier. Upon analysis, the certifier will review the results to determine compliance and next steps, as appropriate.

Pesticide Screening cont...

Q: What treatment methods are approved for use to manage insects in / on organic spices?

A: The U.S. Environmental Protection Agency (EPA) establishes the maximum allowed levels of pesticides which may be present in foods. Although most EPA-registered pesticides are prohibited in organic production, there can be inadvertent or indirect contact from neighboring conventional farms or shared handling facilities.

In recognition that inadvertent or unavoidable contact with prohibited substances may occur, the USDA organic [regulations allow](#) residues of prohibited pesticides up to 5 percent of the EPA tolerance. If residues are detected at or below 5% of the tolerance, the product can still be sold as organic. However, if an organic producer used a prohibited pesticide or did not take adequate steps to avoid contamination from it, any level of pesticide residues would be a violation of the organic standards. It is important to note that this allowance is only permitted when the pesticide detected has a tolerance established in the U.S.

If residues are detected above 5% of a tolerance but below the tolerance itself, the product cannot be sold as organic, and the company may be issued a noncompliance letter for violation of [section 205.671](#). If residues are detected above an established tolerance level, the product cannot be sold as organic, the company will be issued a noncompliance letter for violation of section 205.671, and the certifier will inform EPA on the noncompliance.

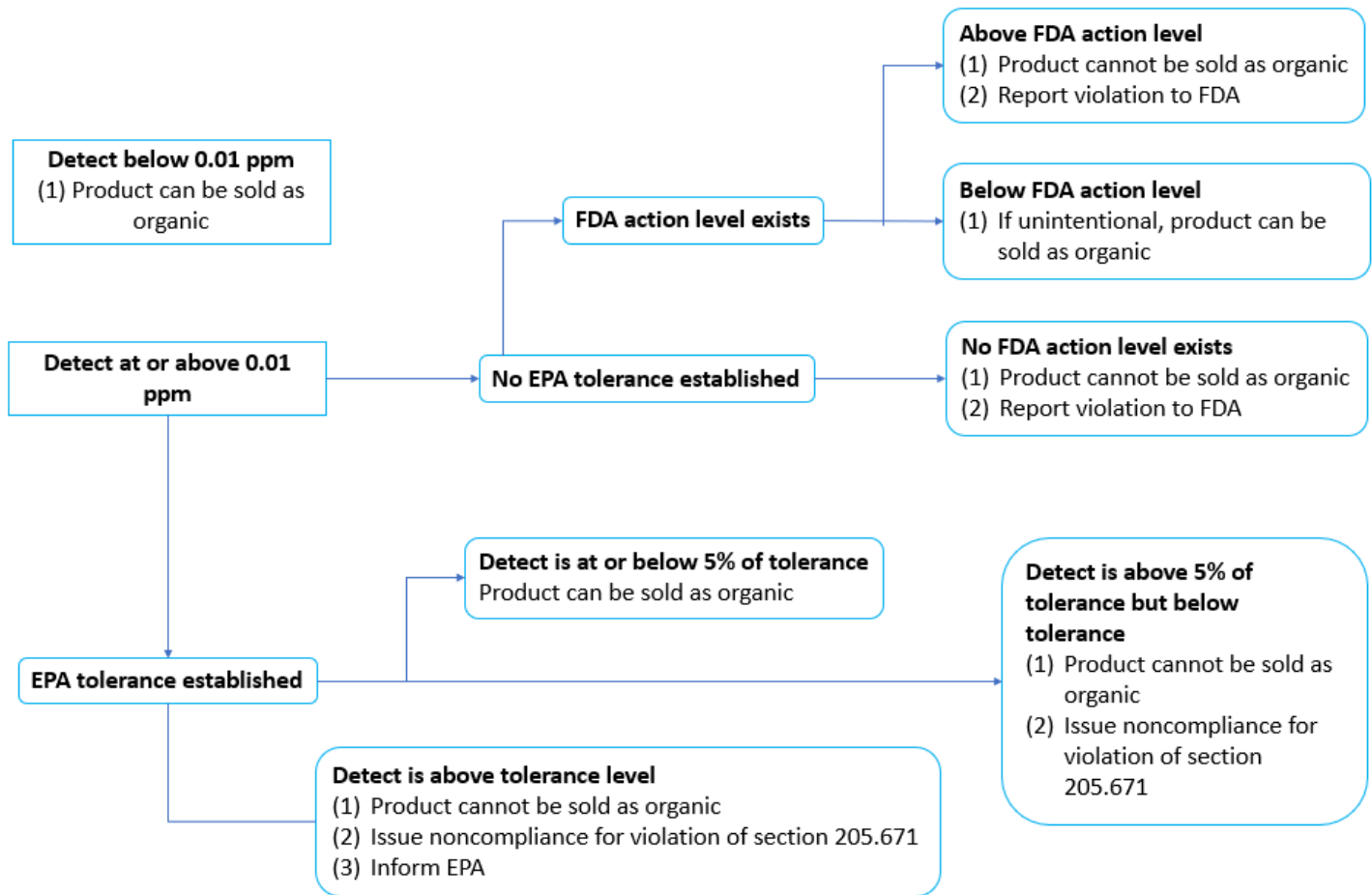
More broadly, when a pesticide residue is detected at less than 0.01 ppm, the NOP's [guidance](#) on pesticide residues in organic products indicates the certifying agent should take the following steps, copied below. Importantly, when the residue is detected at less than 0.01 ppm, the product may be sold as organic, though some follow-up is required. The guidance indicates that this is the case regardless of whether there is an EPA tolerance established for the particular pesticide (see sections 5.3.1 and 5.3.3 of the guidance).

According to the guidance, if tests detect residues of prohibited pesticides at less than 0.01 ppm / 10 ppb, the following steps should be taken:

1. Notify the certified operation of the test results and indicate that the product may be sold as organic.
2. Assess why the residue is present and follow up with operation as appropriate.
3. Retain the test results, which must be made available to the public upon request and will be reviewed as part of the next audit.

If residues are detected at levels greater than 5 percent of the pesticide's EPA tolerance and/or 0.01 ppm, the product may not be sold as organic, though it may still be sold as conventional so long as the residues are compliant with EPA's residue standards. Enforcement action may be taken based on the extent of noncompliance and the party involved, which may include a cease-and-desist notice, monetary fines, and proposed suspension or revocation of the party as certified organic.

A flow chart depicting the analysis and enforcement process is shown on the next page.

Pesticide Screening cont...**Figure 1. Summary of Pesticide Residue Screening Procedures**

Q: What are some best practices for pesticide residue screening in organic spices?

A: Under the organic regulations, naturally derived pesticides and a small number of synthetic ingredients, as outlined in the National List, are allowed to be applied to organic spices. It is important that spice companies implement a risk-based pesticides residues monitoring program to ensure that their spices are compliant with organic standards and federal pesticide residue regulations.

ASTA recommends that companies consider the prohibited substances included in the National List and as outlined by USDA in its Prohibited Pesticides for NOP Residue Testing list when establishing their screening strategies. Moreover, it is essential that each company perform a risk assessment to determine which additional chemicals to test for based on its own, unique supply chain. Additionally, it may be helpful to reference the list of pesticides that FDA screens for through its pesticide enforcement program. While FDA does not regulate organic status, this list may still serve as a reference for chemicals of interest to U.S. regulators.