

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

#### 7 CFR Part 205

[Doc. No. AMS–NOP–22–0063]

RIN 0581–AE13

#### National Organic Program; Market Development for Mushrooms and Pet Food

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Proposed rule.

**SUMMARY:** The United States Department of Agriculture (USDA) Agricultural Marketing Service (AMS) proposes to amend the USDA organic regulations to clarify standards for organic mushrooms and organic pet food. Specific standards for these products do not currently exist. Instead, these products have been certified organic using the general organic standards for crops, livestock, and handling. However, this approach is not ideal as the current regulations do not address unique aspects of either product. AMS expects this rule would promote development of these markets by increasing regulatory certainty that would, in turn, encourage investment in the markets. The topics addressed by the proposed rule include sourcing of substrate and spawn in organic mushroom production, composting requirements for organic mushroom production, composition and labeling requirements for organic pet food, and the use of certain synthetic substances in organic pet food.

**DATES:** Electronic or written comments on the proposed rule must be submitted by May 10, 2024.

**ADDRESSES:** You may submit electronic comments on this proposed rule through the Federal eRulemaking Portal at <https://www.regulations.gov> (docket number AMS–NOP–22–0063). Instructions for submitting electronic comments are available at <https://www.regulations.gov>. Comments may also be sent by mail to: Erin Healy,

Director, Standards Division, National Organic Program, USDA–AMS–NOP, 1400 Independence Ave. SW, Room 2642–So., Ag Stop 0268, Washington, DC 20250–0268.

**Instructions:** All comments should include the docket number (AMS–NOP–22–0063), and/or the Regulatory Information Number (RIN 0581–AE13) for this rulemaking. You should clearly indicate the topic and section number of this proposed rule to which your comment refers, state your position(s), offer any recommended language change(s), and include relevant information and data to support your position(s) (e.g., scientific, environmental, manufacturing, industry, or industry impact information, etc.). All comments and relevant background documents posted to <https://www.regulations.gov> will include any personal information provided.

**FOR FURTHER INFORMATION CONTACT:** Erin Healy, Director, Standards Division, National Organic Program. Telephone: 202–720–3252. Email: [Erin.Healy@usda.gov](mailto:Erin.Healy@usda.gov).

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## I. Executive Summary

### A. Purpose and Need for the Rule

This proposed rule would amend the USDA organic regulations to establish specific standards for organic mushroom production and organic pet food handling. Specific standards are necessary to resolve inconsistency and uncertainty in these two markets. AMS is addressing standards for pet food and mushrooms together in this rule because both markets are currently hampered by the lack of specific regulations that are suitable for these particular products. Both markets exhibit inconsistent interpretations of the organic regulations by certifiers and uncertainty around regulatory requirements that are likely to deter investments in the sectors. In addition, the National Organic Standards Board (NOSB) has made recommendations to revise the regulations for these organic products, and these changes are supported by the organic industry. Finally, both organic mushrooms and pet food are developing markets that would benefit from clearer standards to facilitate and promote growth.

The organic regulations do not currently include standards specific to mushrooms and pet food. Although some mushrooms and pet food products are currently being certified using the general organic standards, the current regulations are an imperfect fit for both mushroom and pet food production and do not address unique aspects of either product. For example, some certifying agents use the current crop production standards to certify organic mushrooms or the handling standards for processed products to certify organic pet food. In both cases, certifying agents and operations extrapolate from the organic standards to fit organic mushroom and pet food production. This creates varying and inconsistent interpretations of the organic regulations, such that some mushroom producers are required to use organic inputs where others are not, and some pet food manufacturers are allowed to use slaughter by-products where others are not. The inconsistent certification and enforcement practices for organic mushrooms and pet food fail to meet one of the purposes of the Organic Food Production Act (OFPA), that is, to assure consumers that organically produced products meet a consistent standard (7 U.S.C. 6501(2)).

Additionally, the National Organic Program (NOP) has received feedback from stakeholders that the lack of specific standards for mushrooms and pet food creates uncertainty that may deter development in these markets. Clearer and more specific standards would give businesses certainty about how they should produce organic mushrooms and pet food, which would create the conditions necessary for the growth of the organic mushroom and pet food markets. Addressing uncertainty and inconsistency in organic mushroom and pet food production is important for market development. Ensuring consistent standards across the organic industry also protects the integrity of the organic seal by building customer trust in the label.

### B. Summary of Provisions

Through the amendments in this proposed rule, AMS would establish standards for organic mushroom production and pet food handling. The proposed rule would:

- Add the term “mushroom” to the definitions of “crop” and “wild crop;”
- Establish definitions for “mushroom,” “mushroom substrate,” “mycelium,” “spawn,” and “spawn media;”
- Create a new section titled Mushroom Production Practice Standard;
  - Require that operations use organic mushroom spawn and substrate when commercially available;
  - Add mushroom-specific requirements for organic compost production;
  - Establish definitions for “pet” and “pet food” for the purposes of the USDA organic regulations only;
  - Add a new paragraph to the organic handling standard describing the requirements for production and labeling of pet food, including composition (what can be included in organic pet food) and labeling requirements; and
  - Add synthetic taurine (an amino acid) to the National List to allow its use in organic pet food.

## II. General Information

### A. Does this proposed rule apply to me?

You may be affected by this proposed rule if you are engaged in organic mushroom production or pet food handling. Potentially affected entities may include, but are not limited to, the following:

- Organic pet food manufacturers;
- Organic mushroom producers;

• Individuals or business entities that are considering organic certification for pet food or mushrooms;

• Existing livestock, mushroom, and handling operations that are currently certified organic under the USDA organic regulations; and

• USDA-accredited certifying agents, inspectors, and certification review personnel.

This list is not exhaustive but identifies key entities that this rule may affect. Other types of entities may also be affected. To determine whether you or your business may be affected by this action, you should carefully examine the regulatory text and discussion below. If you have questions regarding the applicability of this rule to a particular entity, contact the person listed under **FOR FURTHER INFORMATION CONTACT**.

### B. What should I consider as I prepare my comments for AMS?

AMS seeks comment from the public and organic stakeholders regarding the proposed amendments, especially on the following topics:

1. Is the regulatory language and accompanying discussion in this document clear enough to allow producers, handlers, and certifying agents to comply with the proposed requirements?
2. Do the proposed amendments create any conflict with current organic regulations?
3. Would a one-year implementation period (from the effective date of a final rule) be appropriate for affected operations to comply with these proposed changes? If not, what timeframe would be appropriate?
4. Are there any concerns about the proposed requirements for compost used in organic mushroom operations? Are there any additional health and sanitary issues that AMS has not considered? Would the proposed requirements hinder any current methods of substrate preparation? Would the proposed changes impact other organic sectors and if so, how?
5. Are there any concerns about the proposed requirements for producing certified organic spawn? What are the barriers to producing certified organic spawn for mushroom production? How would this rule affect these barriers?
6. Stakeholders and data indicate that many organically produced mushrooms are sold as conventional mushrooms. Why are certified organic mushroom operations producing significantly more organic mushrooms than they are selling as certified organic? What could be included in this rule to help ensure that

mushrooms that are produced organically can be sold as organic?

7. What factors have kept pet food manufacturers from seeking organic certification? Are there barriers that the proposed rule does not address?

8. Are there any additional synthetic, nonsynthetic, or nonorganic substances required in pet food to meet pet health needs that are not included in the proposed rule?

9. Are slaughter by-products commonly used in organic pet food? Are there obstacles to greater use of organic slaughter by-products in organic pet food? Is there existing data on the organic slaughter by-product market utilization and prices?

## III. Background

### A. Purpose and Need for the Rule

This proposed rule would amend the USDA organic regulations to establish specific standards for organic mushroom production and organic pet food handling. The purpose of these amendments is to resolve uncertainty and inconsistency in how the organic regulations apply to these two products. Based on market penetration data and feedback from stakeholders, AMS believes that removing regulatory uncertainty as a barrier will create conditions that offer a reasonable expectation for growth in these two markets and other latent markets that support them, such as mushroom substrate and organic slaughter by-products.

New rulemaking is needed because the current organic regulations do not include standards specific to mushrooms and pet food. Some certifying agents certify organic mushrooms using the current crop production standards and some certify pet food using a combination of livestock feed standards and handling standards for processed products; however, the current regulations do not address the unique needs of either product. The current crop production standards are intended primarily for plant production and do not fully address the unique biology of mushrooms. This is because mushrooms are fungi, not plants, and have different production practices and materials requirements. Plants are usually grown outdoors and photosynthesize energy from the sun; however, mushrooms are most commonly grown in indoor, controlled environments and draw energy from substrate material. These biological and production differences mean the organic crop production standards do not always fit mushrooms well. Certifier requirements are

currently inconsistent, and producers may be inconsistently applying the organic standards to aspects such as substrate, spawn, and compost for mushroom production.

Similarly, the current organic regulations do not address pet food. Producers and certifiers apply a combination of the handling standards for processed products and the organic livestock feed standards, but their practices are not uniform. The handling standards are appropriate for verifying the processing, handling, product composition, and labeling requirements for multi-ingredient processed agricultural products but lack specific allowances for nutrients that are necessary for pets. The livestock feed standards include allowances for many of those nutrients but include prohibitions on common pet food ingredients, such as slaughter by-products. Slaughter by-products (*e.g.*, animal and poultry by-product meal; animal liver) make up approximately 23 percent of the composition of conventional pet food, in part to meet protein levels required by federal and state regulations on pet food.<sup>1</sup> Applying the livestock feed regulations to organic pet food production inhibits the market for organic slaughter by-products. These contradictions create uncertainty for businesses that currently produce organic pet food and are a barrier to businesses that would like to produce organic pet food or sell slaughter by-products into that market. AMS estimates that this rule could ensure consistent demand for over 14 million pounds of organic meat and organic slaughter by-products annually, with approximately half of that demand being for organic slaughter by-products. Based on feedback from stakeholders, AMS finds it likely that organic meat and slaughter by-product demand will grow over time beyond this estimate after implementation of specific rules.

This rule would also address feedback from the organic industry, which has asked USDA to implement NOSB recommendations more generally, including implementing standards for these two products. AMS hosted a virtual prioritization listening session in spring 2022. Oral and written comments encouraged AMS to prioritize rulemaking for additional practice standards, including organic pet food and mushrooms. The proposed changes in this rule are based on NOSB recommendations for mushroom production and pet food handling in

<sup>1</sup> Institute for Feed Education & Research. (March 2020). "Pet food production and ingredient analysis."

response to the organic industry's interest in further developing the organic standards.

Market penetration data supports the idea that the organic mushroom and organic pet food markets have a reasonable expectation of growth if uncertainty and inconsistency are removed as barriers. Both markets currently lag behind their most-comparable organic sectors. In 2021, sales of organic fruits and vegetables accounted for a 15.5 percent share of all fruit and vegetable sales in the United States,<sup>2</sup> but organic mushrooms only accounted for 10.8 percent of all mushroom sales.<sup>3</sup> Considering that the consumer experience of purchasing mushrooms is typically no different than purchasing fruits and vegetables (they are packaged similarly and found in the same section of the grocery store) it is reasonable to conclude that some external barrier is inhibiting the organic mushroom market. Similarly, organic pet food accounts for only 0.41 percent of all pet food sales, whereas sales of organic non-food products (the closest analog to pet food, as a product that is purchased not for humans to eat) accounted for 1.2 percent of all non-food sales.<sup>4</sup>

In short, AMS believes that clear and consistent standards for organic mushrooms and pet food may create the conditions necessary for organic markets to develop. Regulatory certainty encourages investment in nascent markets; investment increases production capacity; and production enables market growth. Clear standards would promote growth in the development of these markets by increasing consistency in certification and enforcement and removing uncertainty as a regulatory barrier to production and certification. Additionally, growth in these markets is likely to ensure consistent demand for organic inputs in underdeveloped markets like organic meat and slaughter by-products. Because mushrooms and pet food have unique growing

<sup>2</sup> Organic Trade Association. (2022). Organic Industry Survey. p. 56. Note that AMS uses the 2021 data available in the Organic Trade Association's 2022 survey because that was the data available while our economic analysis was under development. The 2022 data (released in May 2023), however, also demonstrates lagging market penetration: Mushroom sales lagged the 14.9 percent share that organic fruits and vegetables claimed, and organic pet food accounted for only 0.38 percent of all pet food sales.

<sup>3</sup> USDA, National Agricultural Statistics Service, Agricultural Statistics Board. (August 26, 2022). "Mushrooms." [https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/mush0822.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/mush0822.pdf).

<sup>4</sup> Organic Trade Association. (2022). Organic Industry Survey. p. 5.

conditions and requirements, AMS provides additional discussion of the need for organic standards in each industry in their respective sections below (see "IV. Mushrooms, B. Need for Organic Mushroom Standard" and "V. Pet Food, B. Need for Organic Pet Food Standard").

#### *B. NOSB Recommendations on Mushrooms and Pet Food*

Several times in its history, the NOSB has recognized the unique production needs of organic mushrooms and pet food and recommended standards specific to each market. The Board recommended organic mushroom standards in April 1995<sup>5</sup> and again in October 2001.<sup>6</sup> Subsequently, the NOSB made a recommendation on organic pet food standards in November 2008,<sup>7</sup> and in April 2013, the NOSB proposed amending the National List to allow taurine for use in pet food.<sup>8</sup> This proposed rule is AMS's first rulemaking action related to these recommendations; we discuss the NOSB's recommendations below.

#### *NOSB Recommendations on Mushroom Production*

In 2001, the NOSB recommended:

- Preventing contact between organically produced mushrooms or mushroom growth substrates and prohibited substances;
- Requiring the use of organic spawn when commercially available;
- Requiring organically produced agricultural materials in mushroom substrate; and
- Allowing nonorganic wood products (*e.g.*, sawdust) in mushroom substrate if trees have not been treated with prohibited substances for three years prior to harvest and have not been treated with prohibited substances after harvest.

AMS investigated rulemaking following this recommendation but did not publish a proposed rule.

<sup>5</sup> NOSB. (April 24–28, 1995). "Final minutes of the National Organic Standards Board full board meeting." <http://www.dairyprogramhearing.com/getfile32e532e5.pdf?dDocName=STELPRDC5057442>.

<sup>6</sup> USDA, AMS. "NOSB recommendations: Fall 2011." Accessed May 8, 2023. <https://www.ams.usda.gov/rules-regulations/organic/nosb/recommendations/fall2011>.

<sup>7</sup> The NOSB's November 2008 recommendation on organic pet food is available online at: <https://www.ams.usda.gov/rules-regulations/organic/nosb/recommendations/fall2008>.

<sup>8</sup> USDA, NOP. (April 2013). "The Organic Integrity Quarterly." <https://www.ams.usda.gov/sites/default/files/media/NOP%202013%20April%20Newsletter.pdf>.

## NOSB Recommendations on Pet Food

In November 2008, the NOSB recommended that organic claims on pet food should be regulated under a combination of organic livestock feed standards and organic processed products labeling requirements.<sup>9</sup> The NOSB recommended:

- Clarifying which animals the pet food requirements would apply to by defining “pets” in the regulations;
- Labeling organic pet food using a framework consistent with labeling for organic human food, allowing the “organic” claim that requires a minimum of 95 percent organic ingredients and the “made with organic (specified ingredients or food group(s))” claim that requires a minimum of 70 percent organic ingredients;
- Clarifying that organic slaughter by-products can be a component of organic pet food; and
- Adding taurine for use in pet food to the National List of allowed synthetic substances.<sup>10</sup>

This proposed rule is the first rulemaking action from AMS to address these recommendations on organic pet food.

### C. Community and Stakeholder Feedback

When developing this proposed market development rule, AMS considered industry and stakeholder requests for specific mushroom and pet food standards in addition to the NOSB recommendations. In March 2022, the National Organic Program (NOP) hosted a public listening session to give stakeholders the opportunity to comment on NOP’s rulemaking priorities.<sup>11</sup> During the listening session, many stakeholders asked that AMS prioritize rulemaking for products that are currently being certified without standards specific to their unique production categories. This

includes mushrooms and pet food. Several stakeholders specifically suggested developing mushroom standards and noted that existing crop standards, including compost requirements, are not appropriate for mushroom production. Similarly, some commenters discussed the importance of establishing consistent pet food standards, naming it as another product currently being certified without standards specific to its unique production demands.

AMS also engaged directly with mushroom experts, producers, and trade associations about organic mushroom production. These discussions affirmed that specific standards for the production and handling of organic mushrooms are needed. These industry stakeholders stated that recognizing mushrooms as a fungal crop cultivated under unique and specialized conditions would foster greater consistency in how organic mushrooms are cultivated and certified. AMS also learned what aspects of mushroom production need mushroom-specific requirements: compost requirements, origin and composition of substrate materials used for growing mushrooms, and origin and composition of spawn.

Discussions with experts in the pet food industry revealed that the key challenge with labeling pet food as organic is uncertainty around the allowance of certain ingredients. For example, under the current organic regulation, it is unclear if pet food manufacturers may use meat (e.g., edible part of animal muscle and organs) or slaughter by-products (e.g., animal and poultry by-product meal; animal liver) in organic pet food, and whether some necessary synthetic ingredients in pet food, such as taurine, are allowed. Inconsistencies in organic claims on pet food can also contribute to consumer uncertainty or mistrust of organic labels. Additionally, stakeholders have noted that allowing organic slaughter by-products in organic pet food would allow livestock producers and slaughter facilities to earn organic premiums for these organic slaughter by-products, which would otherwise be sold without a premium for use in nonorganic products. AMS estimates that this rule could ensure consistent demand for over 7 million pounds of organic slaughter by-products annually, which is likely to grow over time.<sup>12</sup>

<sup>12</sup> Data from the Institute for Feed Education & Research indicates that approximately 23 percent of the ingredient weight in conventional pet food is animal by-product and meal. This estimate is then applied to the estimate pounds of organic pet food as reported by the Organic Trade Association and

Overall, this rulemaking incorporates several NOSB recommendations and stakeholder feedback to address the need for specific standards for mushrooms and pet food. Adding these specific standards is expected to support the development of organic markets for these industries by reducing uncertainty among certifiers, consumers, producers, and manufacturers.

### D. Authority

The Organic Foods Production Act of 1990 (OFPA)<sup>13</sup> authorizes the USDA to promulgate regulations to establish an organic certification program for producers and handlers of agricultural products (7 U.S.C. 6503(a)). This proposed rule would establish new production and certification standards for two products that currently lack specific standards. This proposed rule would, in turn, support the three purposes of OFPA: “(1) to establish national standards governing . . . organically produced products; (2) to assure consumers that organically produced products meet a consistent standard; and (3) to facilitate interstate commerce in . . . food that is organically produced” (7 U.S.C. 6501). The proposed rule would clarify how producers and certifiers should interpret existing organic regulations as they pertain to mushroom or pet food production, which would assure consumers that the organic label on these products guarantees a consistent standard. The proposed rule would assure producers that they operate in a fair and competitive environment with clear rules that all must follow.

USDA administers organic standards through the Agricultural Marketing Service (AMS) National Organic Program (NOP). Final regulations establishing the NOP and the USDA organic regulations were published on December 21, 2000 (65 FR 80548)<sup>14</sup> and were first implemented on October 21,

current market prices. Institute for Feed Education & Research. (March 2020). “Pet food production and ingredient analysis.” Organic Trade Association. (2022). Organic Industry Survey. p. 56.

<sup>13</sup> The Organic Foods Production Act of 1990, 7 U.S.C. 6501–6524, is the statute from which the Agricultural Marketing Service derives authority to administer the NOP, and authority to amend the regulations as described in this proposed rule. This document is available at: <https://uscode.house.gov/view.xhtml?path=/prelim@title7/chapter94&edition=prelim>.

<sup>14</sup> USDA, AMS. (December 21, 2000). “National Organic Program.” Final Rule. 65 FR 80548 (codified at 7 CFR part 205). <https://www.federalregister.gov/documents/2000/12/21/00-32257/national-organic-program>.

<sup>9</sup> NOSB. (November 19, 2008). “Formal recommendation by the National Organic Standards Board (NOSB) to the National Organic Program (NOP).” <https://www.ams.usda.gov/sites/default/files/media/NOP%20Final%20Rec%20Pet%20Food.pdf>.

<sup>10</sup> The 2008 recommendation listed taurine and other additives as “materials for possible petition to the National List for use in Pet Food.” In 2013, the NOSB passed a motion to specifically recommend listing taurine “as a feed additive for use in pet food, only.” See NOSB. (April 11, 2013). “Formal recommendation from: National Organic Standards Board (NOSB) to: the National Organic Program (NOP).” <https://www.ams.usda.gov/sites/default/files/media/NOP%20Livestock%20Final%20Rec%20Pet%20Food%20Amino%20Acid%20amended.pdf>.

<sup>11</sup> USDA, NOP. (March 21, 2022). “National Organic Program priorities listening session.” <https://www.ams.usda.gov/event/national-organic-program-priorities-listening-session>.

2002.<sup>15</sup> Through these regulations, AMS oversees national standards for the production, handling, labeling, and sale of organically produced agricultural products.

#### IV. Organic Mushroom Standard

##### A. Mushroom Background

###### Mushroom Biology and Production

Mushrooms are the fleshy, spore-bearing, fruiting body of some species of fungus. Mushrooms grow from mycelium, which grows below the surface as a root-like network of cells. Commercial mushrooms are grown from spawn, a combination of mycelium and a media (like grains or minerals to carry the mycelium), in controlled indoor environments. In commercial mushroom production, spawn is introduced onto mushroom substrate to grow mushrooms, comparable to how seeds are planted to grow crops.

The mushroom lifecycle is a circular phenomenon that cultivators seek to mimic. In this cycle, spores germinate and then produce hyphae that form mycelium. Mycelium grows by consuming nearby organic material in the cropping container substrate. Fruiting (*i.e.*, formation of mushrooms) occurs when particular conditions are met, such as when the mycelium is well developed, and the humidity and temperature conditions are favorable. The fruiting bodies (*i.e.*, the mushrooms) then create more spores to continue the cycle.

Mushroom growers use spawn—a small amount of material with mycelium growing on it—to produce mushrooms. Spawn can be compared to plant seeds in an agricultural setting; however, an important distinction is that spawn lacks the energy storage of a seed. Seeds store energy to use during germination, whereas spawn must draw energy from substrate materials such as compost. Because of this dependence on the production substrate and the fact that spawn consumes the substrate, the materials used in it are an important part of the composition and growth of the mushrooms.

Mushroom substrate is generally made of composted and/or uncomposted materials, depending on the species of mushroom, and may contain grain, wood, vermiculite, or other ingredients. In mushroom production, inoculation refers to the

introduction of spawn to mushroom substrate. Inoculation methods vary depending on the species of mushroom and the mushroom substrate material it grows on. Mycelium grows within the production substrate after it is inoculated, ultimately producing mushrooms. Depending on the type of mushroom, producers may sometimes harvest multiple crops of mushrooms from one batch of inoculated substrate. Once the production cycle is complete and mushrooms are harvested, a new batch of inoculated mushroom substrate is generally needed to produce a new batch of mushrooms.

##### The U.S. Mushroom Market

For the 2021–2022 growing season, the U.S. mushroom crop volume was 702 million pounds with sales of \$1.02 billion.<sup>16</sup> The *Agaricus bisporus* species of mushrooms accounted for approximately 97 percent of the total sales volume and approximately 93 percent of the total value.<sup>17</sup> *Agaricus* includes white mushrooms (including common, button, and champignon varieties, among others) and brown mushrooms (including crimini/cremini, Swiss, Roman, Italian, and Portobello/Portabello/Portabella varieties, among others). Outside of the *Agaricus* varieties, there are a multitude of cultivated “specialty” mushrooms including shiitake, oyster, enoki, maitake, pompom, and others. Some of these specialty mushrooms include foraged (wild) mushrooms and specialty mushrooms that are intentionally cultivated outdoors. In 2021, 10.8 percent of all mushrooms produced were sold as organic, compared to 15.5 percent of all fruits and vegetables.<sup>18</sup> <sup>19</sup> *Agaricus* mushrooms accounted for approximately 82 percent of the total production volume of organic mushrooms; the remainder were specialty mushrooms.<sup>20</sup>

<sup>16</sup> USDA, National Agricultural Statistics Service, Agricultural Statistics Board. (August 26, 2022). “Mushrooms.” [https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/mush0822.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/mush0822.pdf).

<sup>17</sup> USDA, National Agricultural Statistics Service, Agricultural Statistics Board. (August 26, 2022). “Mushrooms.” . [https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/mush0822.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/mush0822.pdf).

<sup>18</sup> Organic Trade Association. 2022 Organic Industry Survey. p. 56. <https://ota.com/market-analysis/organic-industry-survey/organic-industry-survey>.

<sup>19</sup> USDA, National Agricultural Statistics Service, Agricultural Statistics Board. (August 26, 2022). “Mushrooms.” [https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/mush0822.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/mush0822.pdf).

<sup>20</sup> USDA, National Agricultural Statistics Service, Agricultural Statistics Board. (August 26, 2022). “Mushrooms.” <https://www.nass.usda.gov>

##### B. Need for Organic Mushroom Standard

This proposed rule would create specific standards for organic mushroom production to promote consistency, fair competition, and market growth. As of June 2023, at least 39 certifying agents certify 272 organic mushroom operations.<sup>21</sup> However, the lack of mushroom-specific standards means there is significant variation in how these operations are certified. About 75 percent of certifying agents that oversee organic mushroom production use the organic regulations’ crop standards to certify mushrooms, and the remaining 25 percent either follow the NOSB’s recommendations on mushrooms, or other standards such as those of the European Union. More specifically, some certifying agents require mushroom substrate to be organic, and some do not. Likewise, some certifying agents require spawn to be organic, and some do not.

A key challenge is that the organic crop standards are designed for terrestrial plants, while mushrooms are the fruiting bodies of fungi—a different kingdom of organisms. Fungi require different growing conditions than plants. Mushrooms are grown from spawn, not seed. Generally, mushrooms are not grown in soil like plants; they are grown in substrate material made of composted plant material, minerals, sawdust, and/or logs. Finally, mushrooms do not photosynthesize like plants; they absorb compounds from their environment to use as sources of energy.

The current organic regulations do not address the unique biological differences noted above. Specifically, the regulations lack detail and requirements for spawn, substrate, and compost used in organic production. Consequently, certifying agents have developed their own policies about spawn, substrate, and compost in mushroom production, leading to variation in how organic mushrooms are certified and creating confusion around what practices operations should use. The absence of consistent standards also creates an uneven playing field and encourages “certifier shopping”—as operations learn about discrepancies,

[Publications/Todays\\_Reports/reports/mush0822.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/mush0822.pdf).

<sup>21</sup> USDA, Organic Integrity Database. <https://organic.ams.usda.gov/Integrity/Home>. Advanced search features can be accessed at <https://organic.ams.usda.gov/Integrity/Search>. Certified mushroom producers may be found by narrowing a certified product search for “mushrooms” to operations with a certification status of “certified” and limiting results to the “Crops” scope. Output was manually cleaned to remove unrelated entries.

<sup>15</sup> USDA, AMS. (March 20, 2001). “National Organic Program; Correction of the effective date under Congressional Review Act (CRA).” Final Rule. 66 FR 15619. <https://www.federalregister.gov/documents/2001/03/20/01-6836/national-organic-program-correction-of-the-effective-date-under-congressional-review-act-cra>.

they may pressure their certifier to change their interpretation of the standards or switch to another certifier.

Unfair competition caused by different interpretations of the organic mushroom standards, as well as the possibility of future regulatory changes, could reduce the willingness of businesses to invest in this sector. AMS aims to address these problems by

developing one clear standard for organic mushroom production. Certifying agents would have clear rules to follow and competition among operations would be fairer. This would give businesses greater confidence in the stability of the industry and would encourage them to invest in organic mushroom growing operations and organic mushroom inputs.

*C. Overview of Proposed Amendments*

This proposed rule would amend the USDA organic regulations (7 CFR part 205) by adding new provisions for producing mushrooms that are sold, labeled, or represented as organic. This action would prescribe consistent standards for producers of organic mushrooms, as detailed below.

**TABLE 1—OVERVIEW OF PROPOSED REGULATORY CHANGES TO ESTABLISH ORGANIC MUSHROOM PRODUCTION STANDARD**

Section title	Type of action	Proposed action
205.2 .....	Adds new terms .....	Mushroom; Mushroom substrate; Mycelium; Spawn; Spawn media.
205.2 .....	Amends existing terms .....	Compost; Crop; Wild crop.
205.210 .....	Adds new section .....	Adds mushroom-specific standards to Subpart C.
205.601 .....	Amends language at (i)–(j) .....	Replaces the term “plant” with the term “crop”.

**Sec. 205.2 (Terms Defined)**

AMS proposes to amend § 205.2 by adding five new terms (“mushroom,” “mushroom substrate,” “mycelium,” “spawn media,” and “spawn”) and revising three existing terms (“compost,” “crop,” and “wild crop”), as described below.

**1. Mushroom**

AMS proposes to define “mushroom” as the fruiting body of a fungus. The term “mushroom” is primarily used to describe the agricultural product that consumers purchase.

**2. Mushroom Substrate**

AMS proposes to define “mushroom substrate” as the base material from which mushrooms are cultivated or grown. This substrate acts as a media for fungus to grow on to produce mushrooms and provides the energy and nutrients required for mushrooms to grow. This substrate may be composed of composted material, uncomposted materials, or both, as described under § 205.210(c).

**3. Mycelium**

AMS proposes to define “mycelium” as a mass of branching, thread-like hyphae (fungal structures). Mycelium is the main body portion of a fungus from which mushrooms grow. In commercial mushroom production, mycelium is also used to colonize or inoculate spawn media to produce spawn and a subsequent crop of mushrooms.

**4. Spawn Media**

AMS proposes to define “spawn media” as a carrier, such as grains or minerals, that, when colonized with fungal mycelium, creates spawn. Spawn media, once combined with mycelium, is defined separately as “spawn.” Grain,

sawdust, and vermiculite are common ingredients in spawn media.

**5. Spawn**

AMS proposes to define “spawn” as spawn media that has been colonized by fungal mycelium, which is used to inoculate mushroom substrate (*i.e.*, mushrooms are not harvested from spawn). Spawn, a combination of mycelium and spawn media, is used to inoculate mushroom substrate. Mushrooms grow from mushroom substrate after spawn is applied to (and inoculates) the mushroom substrate.

**6. Compost**

AMS proposes to simplify the definition of “compost” so that the definition would cover compost for use in mushroom production. The current definition of “compost” includes compost production requirements (*e.g.*, minimum time and temperature) that are specific to plant production. However, compost for mushroom production is typically made using lower temperatures and shorter timeframes. The current definition of compost, with its plant production-specific details, is therefore not ideal for producers who need to create or use compost for mushroom production.

This rulemaking proposes to remove the plant production-specific composting requirements from the current definition of compost and add “or substrate” to the end of the definition. This leaves a general definition that allows the production of compost that meets the specific needs of either plants or mushrooms: the product of a managed process through which microorganisms break down plant and animal materials into more available forms suitable for application to the soil or substrate. Plant production-specific

composting requirements remain in the regulation at § 205.203(c)(2)—Soil fertility and crop nutrient management practice standard. This rule also adds mushroom-specific composting requirements, as described below in the section titled Mushroom production practice standard (§ 205.210).

**7. Crop and Wild Crop**

AMS proposes to amend the terms “crop” and “wild crop” to include mushrooms. AMS proposes to include mushrooms in these definitions to clarify that operations may use certain crop production standards in subpart C to produce mushrooms.

**Sec. 205.210 (Mushroom Production Practice Standard)**

AMS proposes to add a new section (§ 205.210) to the USDA organic regulations to describe production practice standards for organic mushrooms. Many of the existing production requirements in subpart C can be applied to mushroom production. However, because of their unique biology, mushroom production demands certain practices that are different from plant production. This new section clarifies which of the existing crop production requirements a mushroom producer should use and adds several mushroom-specific requirements.

AMS proposes in § 205.210(a) that mushroom operations must manage their operations following most of the existing regulations governing crop production, including §§ 205.200, 205.201, 205.202 as applicable, 205.206(a)(2) and (3), and 205.206(b) through (f). These sections cover general production requirements (§ 205.200); organic production and handling system plans (§ 205.201); land requirements

(§ 205.202); and crop pest, weed, and disease management (§ 205.206). Organic mushroom operations, like all other organic operations, must have an organic system plan that describes how the operation complies with applicable parts of the USDA organic regulations.

Because mushrooms have unique biology and production needs, not all existing crop production requirements apply to organic mushroom production. This means that mushroom operations do not need to follow all the requirements in the soil fertility and crop nutrient management practice standard at § 205.203, the seeds and planting stock practice standard at § 205.204, or the crop rotation practice standard at § 205.205. Unlike plants, which acquire energy from photosynthesis, mushrooms absorb sources of energy (like sugars and other organic compounds) from their surroundings. Therefore, most of the soil fertility and nutrient management practices in § 205.203 are not appropriate for mushroom production. However, mushroom producers would have to follow the same nutrient management requirements as plant producers described in § 205.203(d)(1) through (5) and (e). These paragraphs describe acceptable and prohibited forms of nutrient management.

Similarly, mushroom production does not involve seeds or planting stock, and mushrooms are not grown in rotations for fertility or disease suppression, so §§ 205.204–205.205 are not appropriate for mushroom production.

Proposed paragraph 205.210(b) would require operations to manage mushroom substrates and spawn media in a way that avoids environmental contamination. AMS proposes that mushroom substrates, spawn media, spent mushroom substrates, and spent spawn media must be managed to avoid the contamination of any mushrooms, spawn, substrate, soil, or water by pathogenic organisms, heavy metals, or residues of prohibited substances. This provision aligns with the requirement in § 205.203(c), which requires operations to prevent environmental contamination from materials applied to soil. Likewise, this proposed requirement also aligns with the requirement in § 205.200 to protect natural resources. Section 205.210(b) would require operations to handle materials in a way that avoids contamination throughout the entire mushroom production process, from spawn creation, to growing mushrooms, to disposal of spent substrate.

Operations that only produce organic spawn and do not produce organic mushrooms would also be subject to the provisions in paragraph (b). Spawn

media is usually incorporated into the substrate when spawn is applied to a mushroom production bed. In cases where a spawn producer decides not to use a batch of spawn and disposes of the spawn, the operations would need to dispose of spent spawn media in a manner that avoids contamination of mushrooms, spawn, substrate, soil or water by pathogenic organisms, heavy metals, or residues of prohibited substances.

In § 205.210(c), AMS proposes requirements for what mushroom substrate and spawn media can be made of and what materials may be used in substrate production. This proposed paragraph is divided into subparagraphs to address the acceptable use of four types of materials: composted plant and animal materials, uncomposted plant materials, non-agricultural natural substances, and synthetic substances.

Proposed paragraph (c)(1) describes requirements for composted plant and animal materials for use in mushroom substrate and spawn media. This section details time, temperature, and composition requirements for composting plant and animal materials for use in mushroom production. The proposed rule would require that compost feedstock reach at least 131 °F for at least three days during the composting process. The compost must not be treated with any prohibited substances per the existing requirements at § 205.203(e)(1). AMS does not propose a maximum temperature for mushroom compost production. The proposed mushroom compost requirements are consistent with industry standards. The proposed minimum temperature requirement would allow mushroom producers the flexibility to compost their feedstock at higher temperatures for a longer period if warranted.

AMS proposes in § 205.210(c)(2) that uncomposted plant materials for use in mushroom substrate and spawn media must be organically produced if commercially available. However, nonorganically produced uncomposted plant materials may be used in mushroom production when an equivalent organically produced variety is not commercially available. In this case, prohibited substances may not be applied to the nonorganically produced uncomposted plant materials after harvest. Certifiers must use the definition of commercial availability in § 205.2 to validate an operation's claim that organically produced plant materials necessary for mushroom production are not commercially available.

Paragraphs (c)(3) and (4), together with the proposed amendment to the definition of “crop” in § 205.2 to include mushrooms, would allow mushroom operations to use natural (nonsynthetic) substances and/or synthetic substances in accordance with the National List of Allowed and Prohibited Substances for organic crop production. These provisions are appropriate for crop operations and are consistent with the framework in § 205.105(a) and (b) regarding allowed and prohibited substances in organic production. Paragraph (c)(3) would allow the use of natural (nonsynthetic) substances in mushroom substrate and spawn media. Examples include mined gypsum, chalk, and clay. However, operations must not use nonsynthetic substances prohibited for use in organic production in § 205.602 of the National List. Paragraph (c)(4) would also permit the use of synthetic substances allowed for use in organic crop production listed at § 205.601 of the National List. Examples include sanitizers, including chlorine products (like sodium hypochlorite) and hydrogen peroxide; micronutrients listed at § 205.601(j)(7); and microcrystalline cheesewax (which is on the National List at § 205.601(o)(1) and annotated for use as a production aid exclusively in log-grown mushrooms). Use of these substances in mushroom substrate and spawn media must also follow all applicable substance-specific restrictions included in the National List. Paragraph (c)(4), along with the proposed revision to the definition of “crop” in § 205.2 to include mushrooms, would enable mushroom operations to select from the already familiar list of substances allowed in crop production.

AMS proposes in § 205.210(d) that spawn used in organic mushroom production must be organic. Organic spawn must (1) use organic agricultural products (e.g., organic grain) in the spawn media and (2) the spawn must be under continuous organic management once mycelium is applied to the organic spawn media. However, if organic spawn is not commercially available, an operation may use nonorganic spawn to produce a crop of organic mushrooms. Certifiers must use the definition of commercial availability in § 205.2 to validate an operation's claim that organic spawn is not commercially available.

#### Sec. 205.601 (National List)

Finally, AMS proposes to update § 205.601 to clarify that mushrooms are within the scope of organic crop production. The current regulations at § 205.601(i) and (j) use the phrases “As

plant disease control” and “As plant or soil amendments” to describe types of synthetic substances, grouped by function, that may be used in organic crop production. AMS proposes to replace the term “plant” with “crop” in these phrases. Because AMS is proposing to revise the definition of crop (§ 205.2) to include mushrooms, the proposed changes would allow the use of the materials on the National List in paragraphs (i) and (j) in mushroom production. This is discussed in additional detail above (see § 205.210(c)(3) and (4)). AMS notes that certifying agents who currently apply the crop production standards to mushroom production currently permit these substances in mushroom production.

## V. Organic Pet Food Standard

### A. Pet Food Background

AMS proposes in this rule to regulate organic claims on pet food using the existing regulatory framework for processed organic products (§ 205.270, Organic handling requirements) to clarify the composition and labeling requirements for organic pet food. These amendments would allow organic pet food to be labeled and sold as “100% organic,” “organic,” or “made with organic (specified ingredients or food group(s)).” The proposed changes would clarify that pet food is distinct from livestock feed, which has its own composition and labeling requirements (see §§ 205.237 and 205.301(e)). This proposed rule defines “pet” as “Any domestic animal not used for the production and sale of food, fiber, or other agricultural-based consumer products.” The rule defines “pet food” as “Any commercial feed prepared and distributed for pet consumption.” Throughout this proposed rule, the term “pet food” is used to refer to all pet foods, including food for pets other than dogs and cats, unless otherwise noted. Feed for zoo animals (such as large cats) falls outside the scope of the proposed definitions for pet food, since zoo animals fall outside the definition of “pet”—they are not domestic animals.

This rule proposes to regulate only the organic claims of organic pet food: specifically, what it can contain and how it must be labeled. Other aspects of the manufacture, marketing, and sale of pet food—including its healthfulness and safety, nutritional value and composition, and suitability for pets—fall under the Food and Drug Administration’s (FDA) authority. All pet food manufacturers, organic or otherwise, must comply with relevant federal and state regulations pertaining

to pet food safety. The framework for pet food regulation, summarized below, provides context for several provisions in the proposed organic pet food standards.

### Pet Food Regulations

Pet food labels are regulated at the federal and state levels. At the federal level, the FDA is responsible for overseeing and enacting the requirements of the Federal Food, Drug, and Cosmetic Act (FD&C Act), which requires that pet food be safe, properly manufactured, and adequately labeled.<sup>22</sup> The FDA requires certain information on all animal feed labels: proper identification of the product, net quantity statement, name and place of manufacturer or distributor, and a proper listing of all ingredients.<sup>23</sup> Some states enforce their own labeling regulations in addition to those administered by FDA. Most of these states follow the recommendations of the Association of American Feed Control Officials (AAFCO), an independent trade organization. They require a product name that complies with AAFCO pet food labeling rules, the species of pet for which the product is intended, a guaranteed analysis showing the basic nutrient composition, and in some cases a statement of nutritional adequacy and feeding directions.<sup>24</sup>

Pet food is often formulated as a complete nutrition product—*i.e.*, the sole source of nourishment for pets. It typically contains ingredients from agricultural sources and supplemental nutrients to meet the nutrient requirements of the animal. These ingredients (including supplemental nutrients) do not require FDA’s pre-market approval if they are on an FDA-maintained list of ingredients Generally Recognized As Safe (GRAS).<sup>25</sup> The National Academy of Sciences’ National Research Council (NRC) and AAFCO provide information on the nutrient requirements of dogs and cats at each stage of life (*e.g.*, growth, reproduction, adult maintenance) to guide the formulation of nutritionally adequate pet foods. The NRC has listed and

described essential nutrients in its 2006 publication, “Nutrient Requirements of Dogs and Cats.”<sup>26</sup> AAFCO maintains on its website more recently updated Nutrient Profiles for the various stages of life. The minimum nutrient levels specified in the AAFCO Nutrient Profiles are generally consistent with NRC Nutrient Requirement tables and are updated periodically as NRC recommendations change.

This proposed rule would not supersede the requirements of the FDA or state regulatory bodies, including nutrient requirements established according to the guidance of NRC or AAFCO. Instead, this rule is intended to work jointly with those requirements and more narrowly regulate what manufacturers must do to label their pet food “organic” or claim it is “made with organic (specified ingredients or food group(s)).” Additionally, by including organic pet food in the organic regulations, the proposed rule would clarify the process for adding substances to the National List specifically for use in organic pet food. Future amendments to the National List could be made, as necessary, in accordance with the process, requirements, and criteria described in OFPA (see 7 U.S.C. 6517 and 6518).

### Organic Pet Food Industry and Market

The U.S. pet food market is a large and growing market in the United States. According to recent data from the American Pet Products Association (APPA), 66 percent of U.S. households own a pet, which is around roughly 86.9 million homes.<sup>27</sup> In 2022, the pet food market in the United States was valued at \$58.1 billion and is projected to increase to \$62.7 billion in 2023. While the conventional pet food market is already substantial, the organic pet food market is relatively new, with few organic brands able to penetrate the market. In 2022, the organic pet food market was valued at \$129 million but had substantial growth of 5.3 percent over 2021, which was the highest recorded growth since 2013.<sup>28</sup> As of 2021, the organic pet food market is still less than one percent of the total pet

<sup>22</sup> FDA. (February 17, 2022). “FDA’s regulation of pet food.” <https://www.fda.gov/animal-veterinary/animal-health-literacy/fdas-regulation-pet-food>.

<sup>23</sup> FDA. (February 3, 2023). “Pet food.” <https://www.fda.gov/animal-veterinary/animal-food-feeds/pet-food>. FDA’s animal food labeling regulations are located at 21 CFR part 501.

<sup>24</sup> AAFCO. “Labeling & labeling requirements.” Accessed May 1, 2023. <https://www.aafco.org/resources/startups/labeling-labeling-requirements/>.

<sup>25</sup> FDA. (August 4, 2023). “Current animal GRAS notices inventory.” <https://www.fda.gov/animal-veterinary/generally-recognized-safe-gras-notification-program/current-animal-food-gras-notices-inventory>.

<sup>26</sup> NRC. (2006). “Nutrient requirements of dogs and cats.” <https://nap.nationalacademies.org/catalog/10668/nutrient-requirements-of-dogs-and-cats>.

<sup>27</sup> American Pet Products Association. “Pet industry market size, trends & ownership statistics.” Retrieved May 5, 2023. [https://www.americanpetproducts.org/press\\_industrytrends.asp](https://www.americanpetproducts.org/press_industrytrends.asp).

<sup>28</sup> Organic Trade Association. 2022 Organic Industry Survey. p. 108. <https://ota.com/market-analysis/organic-industry-survey/organic-industry-survey>.



food market,<sup>29</sup> and AMS believes there is potential for further growth.

AMS expects that as the number of organic options for pets increases, an untapped market of organic consumers may seek out and purchase organic pet food for the same reasons that they purchase other organic foods. Additionally, demand for pet food was driven up by the COVID-19 pandemic when many people chose to adopt pets while living and working from home. According to an American Society for the Prevention of Cruelty to Animals (ASPCA) survey, around 23 million homes (nearly one in five homes in the United States) adopted a cat or dog during the pandemic.<sup>30</sup>

Most dry and wet pet foods are multi-ingredient products because multiple ingredients are needed to meet the nutritional needs of a pet. The multi-ingredient nature of most pet foods creates a challenge for manufacturers—the organic regulations describe requirements for processed human food, but it is not clear if pet food should follow the same rules. In addition, there is uncertainty about which ingredients are allowed and how certain ingredients can be used in organic pet food. An example is synthetic taurine, which is a necessary ingredient in some pet food, but is not on the National List for use in organic pet food. This limits the types of pet food that can be certified as organic to single-ingredient pet food and treats, in turn limiting the size of the organic pet food market overall. Revising the organic regulations to clearly state how pet food can be labeled organic would allow companies to produce multi-ingredient dry and wet food products that are certified organic and still meet the complete nutritional needs of pets. Additionally, under the current organic regulations, it is unclear if pet food manufacturers may use meat or slaughter by-products in organic pet food, which likely limits the production of organic pet food. AMS expects that these changes would encourage additional growth in the small organic pet food market and other latent organic markets that support it, such as organic slaughter by-products.

### B. Need for Organic Pet Food Standard

The lack of specific standards for organic pet food creates inconsistency and uncertainty around labeling and

composition requirements for organic pet food. These regulatory gaps increase the risk for businesses in the organic pet food market, hinder production innovation, and limit the market for organic slaughter by-products.

For example, some certifying agents have used the composition requirements for organic livestock feed (§ 205.301(e)) to certify pet food as organic, but livestock feed produced under the organic standards may not sufficiently address pets' nutrient needs. Specifically, the organic livestock feed composition requirements (§ 205.301(e)(2)) state that livestock feed must be produced "in conformance with § 205.237." Section 205.237(a) requires that all agricultural ingredients be organically produced and handled, and § 205.237(b)(5) prohibits feeding slaughter by-products to mammals or poultry; however, slaughter by-products are a commonly used protein source in pet food. Furthermore, although the organic livestock feed standards allow the use of vitamins and minerals (§ 205.603(d)), the composition requirements for livestock feed do not allow certain synthetic amino acids that are commonly used in pet food, such as taurine. In some cases, certifying agents may not adhere strictly to the livestock feed standards and some may allow organic slaughter by-products while others do not. This type of inconsistency creates uncertainty for companies considering entering the market. It also reduces the organic premiums that livestock producers and slaughterhouses could otherwise gain.

While some certifying agents have used the composition requirements for organic livestock feed (§ 205.301(e)) to certify pet food as organic, others have used only the handling standards in § 205.270 to certify pet foods as organic. These standards allow organic ingredients (e.g., organic slaughter by-products) and allow nonorganic ingredients that appear on the National List at §§ 205.605 and 205.606, but the standards do not explicitly allow the vitamin and mineral ingredients that appear on the National List for livestock production at § 205.603(d).

This proposed rule would resolve these problems by, first, establishing that pet food is not to be regulated as organic livestock feed and thereby allowing organic slaughter by-products in organic pet food. Allowing slaughter by-products in organic pet food would also increase demand for certified organic slaughter by-products and create new income streams for organic livestock producers and slaughterhouses. Second, the proposed rule would clarify that vitamins,

minerals, and taurine are allowed ingredients in organic pet food. Third, the rule would clarify that certain nonorganic content is permitted in pet food, in accordance with the labeling categories at § 205.301(a) through (d).

The product that forms the largest share of the entire pet food market—kibble<sup>31</sup> or dry "complete and balanced"<sup>32</sup> pet food intended to supply a pet's daily nutritional needs—is a processed product, but the current handling regulations do not allow additive nutrients and vitamins (such as taurine) that pets need to meet nutritional requirements. The proposed rule would resolve this problem by explicitly allowing the vitamin and mineral feed additives referenced in §§ 205.603(d)(2) and (3) for use in pet food and by adding taurine to the National List in § 205.605(b) as an allowed substance in pet food. The natural form of taurine, which is present in raw meat, is lost when heated—a step in the processing of many pet food products.<sup>33</sup> Because of this, synthetic forms of taurine are often added to certain pet foods. By adding synthetic taurine to the National List for use in organic pet food only, this proposed rule would provide for the use of taurine in organic pet food.

Additionally, this proposed rule would regulate pet food under the composition and labeling requirements for processed products referenced in § 205.270. This would allow producers to use both the "organic" and "made with organic (specified ingredient or food group(s))" labeling claims on multi-ingredient products that contain some nonorganic content. These two labeling claims are regulated under the USDA organic regulations (§§ 205.301, 205.303, and 205.304) and are used extensively by certified organic handlers. "Organic" products must contain at least 95 percent organic ingredients, while "made with organic" products must contain at least 70 percent organic ingredients. In both cases, any nonorganic ingredient(s) must also meet specific criteria.<sup>34</sup> This

<sup>31</sup> Kibble was 62.8 percent of all pet food sales in 2020. Pet Food Processing. (December 1, 2020). "State of the US pet food and treat industry, 2020." <https://www.petfoodprocessing.net/articles/14294-state-of-the-us-pet-food-and-treat-industry-2020>.

<sup>32</sup> FDA. (February 28, 2020). "Complete and Balanced Pet Food." <https://www.fda.gov/animal-veterinary/animal-health-literacy/complete-and-balanced-pet-food>.

<sup>33</sup> Spitze, A.R., Wong, D.L., Rogers, Q.R., & Fascetti, A.J. (2003). "Taurine concentrations in animal feed ingredients; cooking influences taurine content." *Journal of Animal Physiology and Animal Nutrition*, 87(7–8), 251–262.

<sup>34</sup> USDA, AMS. (April 2018). "Organic Labels Explained." <https://www.ams.usda.gov/sites/default/files/media/OrganicLabelsExplained.png>.

<sup>29</sup> Organic Trade Association. 2022 Organic Industry Survey. p. 108.

<sup>30</sup> ASPCA. "New ASPCA survey: Vast majority of dogs and cats acquired during pandemic still in their homes." Retrieved May 5, 2023. <https://www.aspcapro.org/resource/new-aspc-a-survey-vast-majority-dogs-and-cats-acquired-during-pandemic-still-their-homes>.

proposed rule would provide pet food manufacturers flexibility to use organic ingredients in a “made with organic” pet food product without having to reach the higher 95 percent ingredient threshold for “organic” products. This clarification would allow pet food companies to increase organic content in their product line.

Finally, under the current organic regulations, it is unclear if pet food manufacturers may use meat or slaughter by-products in organic pet food, limiting the production of pet food and demand for organic slaughter by-products based on certifier interpretation. AMS estimates that by clarifying slaughter by-products are allowed, this rule will allow for more

flexible and affordable organic pet food options and could ensure consistent demand for over 7 million pounds of organic by-products annually.<sup>35</sup> Based on feedback from stakeholders, AMS finds it likely that this clarification will also increase growth in these markets.

In conclusion, this rule would address inconsistencies in how certifying agents are applying the current organic regulations to pet food. It would also resolve regulatory uncertainties that artificially increase risk in the organic pet food market. Addressing these inconsistencies and uncertainties would create the conditions necessary for the organic pet food and related markets to grow.

*C. Overview of Proposed Amendments*

This proposed rule would amend the USDA organic regulations (7 CFR part 205) by defining “pet” and “pet food” in the regulations and adding a new paragraph for pet food in § 205.270, organic handling requirements. This action would integrate organic pet food standards into existing USDA organic labeling categories for agricultural products (subpart D of part 205) and specify the ingredients that can be included in pet food labeled “organic” or “made with organic (specified ingredients or food group(s)).” Table 2 provides a summary of the proposed amendments to the USDA organic regulations to incorporate pet food composition and labeling standards.

TABLE 2—OVERVIEW OF PROPOSED REGULATORY CHANGES TO ESTABLISH PET FOOD STANDARDS

Section title	Type of action	Summary of proposed action
205.2 .....	Adds new terms .....	Defines terms “pet” and “pet food”.
205.270 .....	Adds new paragraph .....	Adds composition and labeling requirements specific to pet food.
205.605(b) .....	Adds substance to the National List.	Adds taurine to the National List as an allowed ingredient in pet food.

Sec. 205.2 (Terms Defined)

AMS is proposing to amend § 205.2 by adding two new terms, “pet” and “pet food.”

1. Pet

AMS is proposing to define “pet” as “any domestic animal not used for the production and sale of food, fiber, or other agricultural-based consumer products.” This term establishes a distinction between animals raised as pets and animals raised for food or fiber (*i.e.*, “livestock,” as defined at § 205.2). Animals used for food or in the production of food, fiber, feed, or other agricultural-based consumer products are “livestock” under the USDA organic regulations (§ 205.2) and must be produced under all applicable organic livestock requirements. Feed requirements for organic livestock are described at § 205.237 and would not apply to organic pet food, and vice versa.

By creating a regulatory distinction between pets and other animals whose feed is subject to organic regulation, the proposed rule would allow organic pet food to contain organic slaughter by-products (except when prohibited by

Federal or State laws and regulations, see proposed § 205.270(c)). This distinction is significant for pet food production because current regulations do not allow slaughter by-products in livestock feed (§ 205.237(b)(5)), but slaughter by-products are commonly used as a protein source in pet food. Additionally, organic livestock must consume only organic agricultural products (§ 205.237(a)), whereas the proposed rule would allow nonorganic agricultural ingredients to be used in pet food under the same labeling categories as other processed organic foods. Together, these clarifications are expected to increase the types of usable ingredients in organic pet food production and increase the commercial viability of organic pet food.

2. Pet Food

AMS is proposing to define “pet food” as “any commercial feed prepared and distributed for pet consumption.” The proposed definition for “pet food” distinguishes organic pet food products from organic livestock feed products. This action is consistent with the NOSB recommendation.<sup>36</sup> It also addresses a concern expressed by pet food manufacturers that applying the

livestock feed composition requirements to pet food could limit product formulation and participation in the organic market because of the lack of available organic protein sources, particularly rendered products such as poultry meal. Unless otherwise noted, the term “pet food” refers to all pet foods, including food for pets other than dogs and cats. Feed for zoo animals (such as large cats) is not included in the proposed definition, as zoo animals are not domestic animals and therefore fall outside the definition of “pets.”

Sec. 205.270 (Organic Handling Requirements)

This proposed rule would add a new paragraph (c) to § 205.270—Organic handling requirements—to describe requirements for the composition, processing, and labeling of organic pet food. The requirements would permit the types of processing allowed in paragraph (a) and the types of nonorganic ingredients allowed in paragraph (b) and proposed paragraph (c), and prohibit the practices and materials not allowed in paragraph (d) (please note that the proposed rule would redesignate, or rearrange, current paragraph (c) of this section as

<sup>35</sup> Data from the Institute for Feed Education & Research indicates that approximately 23 percent of the ingredient weight in conventional pet food is animal by-product and meal. This estimate is then applied to the estimate pounds of organic pet food as reported by the Organic Trade Association and current market prices.

Institute for Feed Education & Research. (March 2020). “Pet food production and ingredient analysis.” Organic Trade Association. (2022). Organic Industry Survey. p. 56.

<sup>36</sup> NOSB. (November 19, 2008). “Formal recommendation by the National Organic Standards

Board (NOSB) to the National Organic Program (NOP): Organic pet food standards recommendation.” <https://www.ams.usda.gov/sites/default/files/media/NOP%20Final%20Rec%20Pet%20Food.pdf>.

paragraph (d)). By including pet food criteria as part of the handling standards but clearly separating the criteria from the livestock feed composition and labeling standards, the proposed rule would ensure that pet food is not subject to the prohibition of slaughter by-products that exists for livestock feed. The proposed rule would allow slaughter by-products in pet food under the same composition and labeling requirements for other multi-ingredient products described at § 205.301(a) through (d) and (f).

Paragraph (b) would permit organic pet food, like any other processed organic product, to contain nonagricultural and nonorganic substances allowed by the National List in § 205.605 (such as taurine, as proposed) and § 205.606. These ingredients may be used in processed pet food products sold as “organic” or “made with organic (specified ingredients or food group(s)).” Additionally, the proposed rule would allow vitamins and minerals in § 205.603(d)(2) and (3) for enrichment or fortification of pet food. Vitamins and minerals are often required to meet the nutritional needs of pets.

The proposed rule would also clarify that pet food labeled as organic must be labeled pursuant to the applicable portions of subpart D of the organic regulations (proposed § 205.270(c)). In particular, this means that organic pet food should be labeled according to the product composition requirements at § 205.301(a) through (d), and that pet food may use the following labeling categories: (1) “100 percent organic;” (2) “organic;” (3) “made with organic (specified ingredients or food group(s));” or (4) products containing less than 70 percent organic ingredients. This proposed action would allow the labeling of organic pet food using the same framework as most processed organic products (rather than the labeling requirements for livestock feed at § 205.301(e)).

The proposed changes to § 205.270 would not replace or modify requirements pertaining to pet food that are applicable under other federal or state laws or regulations. Any ingredients in pet food must comply with all applicable federal and state laws and regulations. AMS only regulates the organic claims of organic pet food. All other aspects of pet food production and sale must follow the relevant federal and state laws and regulations.

Sec. 205.605 (National List)

AMS proposes to modify the National List to allow the use of synthetic taurine

in pet food. The rule proposes to add taurine to § 205.605, which describes nonagricultural substances allowed as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group(s)).” The proposed listing for taurine also specifies that taurine can be used only in pet food and not in other organic multi-ingredient products. Taurine is an amino sulfonic acid that many pets (all cats and some dog breeds) require but cannot obtain in adequate amounts by consuming pet food that does not contain added taurine. For that reason, AAFCO’s cat nutrient profiles require taurine, and it is a common synthetic additive in pet foods.

This proposed addition follows an NOSB recommendation to add taurine to the National List as an allowed substance for use exclusively in pet foods. The NOSB concluded that taurine is necessary to meet nutritional requirements for cats. Also, based on public comment, the NOSB determined that taurine can also be necessary for dogs’ nutrition, and, therefore, recommended taurine be allowed in pet food generally. AMS agrees with the NOSB’s rationale and recommendation since taurine is essential for pet health and adequate taurine levels cannot be achieved using organic agricultural ingredients alone when pet food is cooked. This proposed rule, if finalized, would amend the regulations to provide for the use of taurine.

Individuals may petition to add other substances to the National List for use in organic pet food. Because organic pet food must meet all applicable federal and state laws and regulations, any person or organization petitioning to add a substance to the National List for use in organic pet food must ensure the use of that substance is consistent with applicable federal and state laws and rules. Synthetic substances petitioned for use in pet food would also be evaluated according to the existing criteria in OFPA (7 U.S.C. 6517 and 6518) and the USDA organic regulations (§ 205.600).

## VI. Regulatory Analyses

*Executive Orders 12866, 13563, 14094, and the Regulatory Flexibility Act*

This rule does not meet the criteria of a “significant regulatory action” under Executive Order 12866, as supplemented by Executive Order 13563 and updated by Executive Order 14094. Therefore, the Office of Management and Budget (OMB) has not reviewed this rule under those orders.

The Regulatory Flexibility Act (RFA) (5 U.S.C. 601–612) requires agencies to consider the economic impact of each rule on “small entities” and evaluate alternatives that would accomplish the objectives of the rule without unduly burdening small entities or erecting barriers that would restrict their ability to compete in the market. The purpose of the RFA is to fit regulatory actions to the scale of businesses subject to the action. Section 605 of the RFA allows an agency to certify a rule in place of preparing an analysis if the rulemaking is not expected to have a significant economic impact on a substantial number of small entities. AMS has concluded that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities, and, therefore, an analysis is not included. Below, AMS presents information about the industry and the possible effects of the rule on small entities to support this conclusion.

The Small Business Administration (SBA) sets size criteria for each industry described in the North American Industry Classification System (NAICS) to delineate which operations qualify as small businesses. SBA’s size standards are expressed in terms of number of employees or annual receipts and indicate the maximum allowed for an entity to be considered small.<sup>37</sup>

*Mushroom Producers.* AMS has considered the economic impact of this rulemaking on small mushroom producers. At the time of this analysis, small organic mushroom producers were listed under NAICS code 111411 (Mushroom Production) as grossing equal to or less than \$4,500,000 per year.<sup>38</sup> AMS estimates that out of 229 domestic operations reporting sales of organic mushrooms, 14 operations exceed that threshold.<sup>39</sup> While most organic mushroom operations that would be affected by this rule are small entities, this rule has the potential to impose only minor costs on them related to paperwork burden (see Paperwork Reduction Action section below) and costs associated with

<sup>37</sup> U.S. SBA. (March 17, 2023). Table of size standards. <https://www.sba.gov/document/support-table-size-standards>.

<sup>38</sup> U.S. SBA. (March 17, 2023). Table of size standards. <https://www.sba.gov/document/support-table-size-standards>.

<sup>39</sup> The National Agricultural Statistics Service was unable to supply a precise tabulation of large organic operations due to disclosure concerns. AMS estimated the number of large mushroom operations and sales from large mushroom operations using the proportion of conventional mushroom operations by sales from the USDA’s 2017 Census of Agriculture, available here: <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>. The same distribution is assumed to apply to organic mushroom operations.

sourcing organic spawn and substrate materials, when commercially available. AMS concludes that this rule, if promulgated, will not have a significant economic impact on a substantial number of these small entities.

*Pet Food Operations.* AMS has considered the economic impact of this rulemaking on small organic pet food producers. At the time of this analysis, small organic pet food producers were listed under NAICS code 311111 (Dog and Cat Food Manufacturing) as employing equal to or fewer than 1,250 employees.<sup>40</sup> AMS estimates that given the small size of the organic pet food market, most organic pet food operations are small entities. Pet food operations may incur small one-time paperwork costs (see Paperwork Reduction Act section below), but the proposed rule would establish standards for organic pet food handling that align with many existing industry practices. Additionally, the rule could allow operations to use additional inputs (*e.g.*, taurine) in pet food. AMS concludes that this rule, if promulgated, will not have a significant economic impact on a substantial number of these small entities.

*Certifying agents.* This proposed rule would also affect certifying agents that certify organic mushroom or pet food operations. At the time of this analysis, the SBA defined small agricultural service firms, which include certifying agents, as those having annual receipts equal to or less than \$19,500,000 (NAICS code 541990—All Other Professional, Scientific and Technical Services). There are currently 74 USDA-accredited certifying agents, and AMS believes most of these certifying agents are small entities. Certifying agents must already comply with the current regulations and already certify these operations. Certifying agents may incur minor one-time paperwork costs (see Paperwork Reduction Act section below). However, this rule would reduce the current burden of creating and maintaining individual policies for organic mushroom production and organic pet food handling. AMS concludes that this rule, if promulgated, will not have a significant economic impact on a substantial number of these small entities.

#### *Executive Order 12988*

Executive Order 12988 instructs each executive agency to adhere to certain requirements in the development of new and revised regulations to avoid unduly

burdening the court system. This proposed rule complies with these requirements. This rule would not be applied retroactively. Additionally, to prevent duplicative regulation, States and local jurisdictions are preempted under OFPA from creating accreditation programs for private persons or state officials who want to become certifying agents of organic farms or handling operations. A governing state official would have to apply to USDA to be accredited as a certifying agent, as described in OFPA (7 U.S.C. 6514(b)). States are also preempted under sections 6503 through 6507 of OFPA from creating certification programs to certify organic farms or handling operations unless the state programs have been submitted to, and approved by, the Secretary as meeting the requirements of OFPA.

Pursuant to section 6507(b)(2) of OFPA, a state organic certification program that has been approved by the Secretary may, under certain circumstances, contain additional requirements for the production and handling of agricultural products organically produced in the state and for the certification of organic farm and handling operations located within the state. Such additional requirements must (a) further the purposes of OFPA, (b) not be inconsistent with OFPA, (c) not be discriminatory toward agricultural commodities organically produced in other States, and (d) not be effective until approved by the Secretary.

In addition, pursuant to section 6519(c)(6) of OFPA, this rulemaking would not supersede or alter the authority of the Secretary under the Federal Meat Inspection Act (21 U.S.C. 601–624), the Poultry Products Inspection Act (21 U.S.C. 451–471), or the Egg Products Inspection Act (21 U.S.C. 1031–1056), concerning meat, poultry, and egg products, respectively, nor any of the authorities of the Secretary of Health and Human Services under the Federal Food, Drug and Cosmetic Act (21 U.S.C. 301–399i), nor the authority of the Administrator of the Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136–136y).

OFPA at 7 U.S.C. 6520 provides for the Secretary to establish an expedited administrative appeals procedure under which persons may appeal an action of the Secretary, the applicable governing State official, or a certifying agent under the statute that adversely affects such person or is inconsistent with the organic certification program established under OFPA. OFPA also provides that the U.S. District Court for

the district in which a person is located has jurisdiction to review the Secretary's decision.

#### *Executive Order 13132*

Executive Order 13132 mandates that federal agencies consider how their policymaking and regulatory activities impact the policymaking discretion of States and local officials and how well such efforts conform to the principles of federalism defined in said order. This executive order only pertains to regulations with clear federalism implications.

AMS has determined that this proposed rule conforms with the principles of federalism described in E.O. 13132. The rule would not impose substantial direct costs or effects on States, would not alter the relationship between States and the federal government, and would not alter the distribution of powers and responsibilities among the various levels of government. States have the opportunity to comment on any potential federalism implications during this proposed rule's comment period. AMS will consider these comments when assessing the federalism implications of any final rule.

#### *Executive Order 13175*

Executive Order 13175 requires Federal agencies to consult and coordinate with Tribes on a government-to-government basis on policies that have Tribal implications, including regulations, legislative comments, or proposed legislation. Additionally, other policy statements or actions that have substantial direct effects on one or more Indian Tribes, the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes also require consultation. After consultation with the USDA Office of Tribal Relations, AMS has determined that a Tribal consultation for this rulemaking is not necessary, as it is unlikely to impact Tribes. However, AMS will conduct a Tribal consultation if stakeholders request one.

#### *Civil Rights Impact Analysis*

AMS has reviewed this rulemaking in accordance with the Departmental Regulation 4300–4, Civil Rights Impact Analysis, to address any major civil rights impacts the rule might have on minorities, women, and/or persons with disabilities. After a careful review of the rule's intent and provisions, AMS determined that there is no evidence that this proposed rule would have

<sup>40</sup> U.S. SBA. (March 17, 2023). Table of size standards. <https://www.sba.gov/document/support-table-size-standards>.

adverse civil rights impacts on organic producers identifying as minorities, women, and/or persons with disabilities. Additionally, this proposed rule would not impose any requirements related to eligibility for benefits and services on protected classes, nor would the rule have the purpose or effect of treating classes of persons differently.

Protected individuals have the same opportunity to participate in NOP as non-protected individuals. USDA organic regulations prohibit discrimination by certifying agents. Specifically, 7 CFR 205.501(d) of the current regulations for accreditation of certifying agents provides that “No private or governmental entity accredited as a certifying agent under this subpart shall exclude from participation in or deny the benefits of the National Organic Program to any person due to discrimination because of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status.” Section 205.501(a)(2) requires certifying agents to “[d]emonstrate the ability to fully comply with the requirements for accreditation set forth in this subpart,” including the prohibition on discrimination. The granting of accreditation to certifying agents under § 205.506 requires the review of information submitted by the certifying agent and an on-site review of the certifying agent’s client operation. Further, if certification is denied, § 205.405(d) requires that the certifying agent notify the applicant of their right to file an appeal to the AMS Administrator in accordance with § 205.681.

These regulations provide protections against discrimination, thereby permitting all producers, regardless of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status, who voluntarily choose to adhere to the rules and qualify, to be certified as meeting NOP requirements by an accredited certifying agent. This action in no way changes any of these protections against discrimination.

#### *Paperwork Reduction Act*

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521) (PRA), AMS is requesting OMB approval for a new information collection totaling 851 hours for the

reporting and recordkeeping requirements contained in this proposed rule. OMB previously approved information collection requests (ICR) associated with the NOP and assigned OMB control number 0581–0191. AMS intends to merge this new information collection, upon OMB approval, into the approved 0581–0191 collection. Below, AMS describes and estimates the annual burden, *i.e.*, the amount of time and cost of labor, for entities to prepare and maintain information to participate in this proposed voluntary labeling program. OFPA, as amended, provides authority for this action.

*Title:* National Organic Program: Market Development for Mushrooms and Pet Food.

*OMB Control Number:* 0581–NEW.

*Expiration Date of Approval:* Three years from OMB date of approval.

*Type of Request:* New collection.

*Abstract:* Information collection would be necessary to implement reporting required by the proposed standards for organic mushroom production and pet food handling under the USDA organic regulations (§§ 205.210 and 205.270). This proposed rule would establish USDA organic requirements in these sectors to support consistent interpretation and remove regulatory uncertainty. By doing so, it would support the purposes of OFPA, “to assure consumers that organically produced products meet a consistent standard” and to “establish national standards” for products marketed as organic (7 U.S.C. 6501). Additional information on the purpose and need for this rule is included in the BACKGROUND section of this rule.

#### Overview

Information collection and recordkeeping would be required to demonstrate compliance with proposed new § 205.210 and proposed amendments to § 205.270 of the USDA organic regulations, 7 CFR part 205, that establish standards for mushroom production and pet food handling. Historically, while mushrooms have been managed as a crop and pet food has been manufactured in compliance with the livestock feed and/or handling standards, AMS has received reports that the lack of specific standards for mushrooms and pet food handling deters business investment and creates inefficiencies in these markets.

Mushrooms are not plants. They do not photosynthesize and are generally grown in controlled environments. While mushrooms can comply with most of the existing regulations governing crop production, including §§ 205.200–202 and 205.206, they have very distinct growing requirements that differ from plant crops and are not directly addressed in the current organic regulations. AMS is proposing to add § 205.210 to the USDA organic regulations to describe the specific practice standards for mushrooms that codify the processes and materials allowed in organic mushroom operations. This includes mushroom substrate requirements instead of the soil fertility and crop nutrient management requirements in § 205.203 and spawn production requirements in lieu of the parallel seeds and planting stock practice requirements in § 205.204.

AMS is proposing to apply the existing framework for the organic handling requirements at § 205.270 to pet food composition and labeling. Some parties interested in creating organic feed stated that it was not clear if organic pet food was allowed to contain slaughter by-products, which are prohibited in livestock feed. This proposed rule would clearly permit the use of slaughter by-products from organic livestock in organic pet food by establishing pet food regulations outside of the livestock feed standards.

These amendments would require one-time additional reporting for already certified pet food and mushroom operations, accredited certifying agents, and inspectors. Existing organic mushroom and pet food operations would need to review their existing organic system plans for compliance, certifiers would have to review the updated plans, and certifiers/inspectors would need training on the new regulation. The reporting burden for new and exempt operations in these sectors would remain unchanged from the current ICR, and recordkeeping burdens from the current ICR would remain unchanged for all respondents. Beyond the first year, AMS expects no increase in reporting and recordkeeping burden for any respondents. The continuing reporting and recordkeeping requirements are routine activities that are currently identified in the NOP’s approved ICR.

**Respondents**

Six respondent types—certified operations (producers and handlers), accredited certifying agents, inspectors, foreign governments, state organic programs, and petitioners—have been identified in our currently approved information collection (0581–0191). AMS has identified three primary types of entities (respondents) that would need to submit new information because of this proposed rule: certified organic operations, accredited certifying agents, and organic inspectors. AMS does not expect this rule to impact any new operation, foreign governments, state organic programs, and petitioners as it only seeks to establish specific standards for mushroom and pet food operations, which would only require changes from existing operations and certifiers. The reporting burden for new and exempt operations in these sectors would remain unchanged from the ICR, and recordkeeping burdens from the current ICR would remain unchanged for all respondents.

**Calculating Reporting and Recordkeeping Burden**

AMS identifies three types of entities (respondents) that would need to submit and maintain information to participate in organic pet food and mushroom certification:

1. Organic pet food and mushroom operations.
2. Accredited certifying agents.
3. Inspectors.

To understand the reporting and recordkeeping costs of this rulemaking more precisely, AMS calculated the potential impacts utilizing domestic and

foreign labor rates (per hour) plus benefits.

AMS calculates the time burden of the new reporting and recordkeeping requirements of this rulemaking by estimating the following:

1. The number of respondents.
2. Frequency of response.
3. Total number of burden hours per year.

The number of respondents is based on operation, certifier, inspector, and State Organic Program data from the Organic Integrity Database. The frequency of responses is estimated to be the total annual responses and the number of responses per respondent in twelve months. The total number of burden hours per year is estimated to be the total annual responses multiplied by the number of hours per response.

AMS estimates the cost (financial) burden of the new reporting and recordkeeping requirements of this rulemaking by estimating the following:

1. Total hours per respondent.
2. Total hours for all respondents.
3. Capital and other non-labor costs per respondent.
4. Total capital and other non-labor costs for all respondents.

The total hours per respondent and for all respondents were estimated based on the number of respondents and the amount of time AMS estimates would be needed to report and record new information based on this rulemaking.

**1. Operations: Mushroom Producers and Pet Food Manufacturers**

Domestic and foreign producers and handlers that are updating their organic

system plan must address how their operation complies with the proposed mushroom or pet food standards. Operations would be required to update any changes in their operation or practices to their certifying agent at least annually. AMS has identified 229 domestic and 43 foreign-based operations that produce mushrooms and 31 domestic and 5 foreign-based operations that manufacture pet food requiring 308 reporting responses.<sup>41</sup>

The proposed mushroom production and pet food handling standards are estimated to require each current mushroom producer or pet food manufacturer to spend one hour to verify the compliance of their organic system plan with the proposed standards. AMS estimates the costs of the one-time reporting burden for all mushroom producers and pet food manufacturers to review and verify the compliance of their new or updated organic system plan at \$15,391.55. This is based on 260 labor hours at \$52.18 per labor hour (including benefit costs)<sup>42</sup> for 260 domestic operations, totaling \$13,565.64; and 48 labor hours at \$38.04 per labor hour (including benefit costs)<sup>43</sup> for 48 foreign operations, totaling \$1,825.91 (See Table 3: USDA Certified Operations Reporting Burden). No new recordkeeping burden is incurred by this proposed rule as these operations are already certified and covered by existing recording keeping in the current Information Collection Request.<sup>44</sup>

**TABLE 3—USDA CERTIFIED OPERATIONS (MUSHROOM PRODUCERS AND PET FOOD HANDLERS) REPORTING BURDEN**

Respondent categories	Number of respondents	Wage + benefits	Total reporting hours	Total costs
USDA Certified Producers & Handlers—Domestic .....	260	\$52.18	260	\$13,565.64
USDA Certified Producers & Handlers—Foreign .....	48	38.04	48	1,825.91
USDA Organic Operations—All .....	308	.....	308	15,391.55

<sup>41</sup> USDA. Organic Integrity Database. <https://organic.ams.usda.gov/IntegrityPlus/Search.aspx>. To obtain the relevant data, search for “mushroom” and “pet,dog,canine,cat,feline” in the “Certified Products” field. Accessed May 9, 2023.

<sup>42</sup> The cost of labor per hour for domestic operations was obtained by calculating the sum of the mean hourly wage for agricultural workers and the hourly cost of worker benefits. In May 2022, the mean hourly wage for Farmers, Ranchers, and Other Agricultural Managers (Standard Occupational Classification code 11–9013) was \$40.29. U.S. Bureau of Labor Statistics. (April 25, 2023). “Occupational employment and wage statistics:

May 2022 national occupational employment and wage estimates United States.” [https://www.bls.gov/oes/current/oes\\_nat.htm#top](https://www.bls.gov/oes/current/oes_nat.htm#top). Domestic benefits were reported to be 29.5 percent of total average civilian employer compensation costs. U.S. Bureau of Labor Statistics. (June 16, 2023). “Employer costs for employee compensation summary.” USDL–23–0488. <https://www.bls.gov/news.release/ecec.nr0.htm>.

<sup>43</sup> Wages in foreign countries are estimated to be 70.15 percent of U.S. wages. This percentage was derived by dividing the World Bank estimates of Organization for Economic Co-Operation and Development (OECD) member countries in 2021 by

the wages of the United States in 2021. The World Bank. “GDP per capita PPP—OECD members.” Accessed August 2023. <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=OE>. Foreign worker benefit rates are based on the average OECD member countries’ tax wedge rate of 34.59 percent in 2021. OECD. “Taxing Wages—Comparative tables.” Accessed May 9, 2023. <https://stats.oecd.org/Index.aspx?DataSetCode=AWCOMP>.

<sup>44</sup> The current Information Collection Request can be found at [https://www.reginfo.gov/public/do/PRAViewICR?ref\\_nbr=202001-0581-001](https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202001-0581-001).

2. Certifying Agents

Certifying agents are State, private, or foreign entities accredited by the USDA to certify domestic and foreign producers and handlers as organic in accordance with OFPA and the USDA organic regulations. Certifying agents determine whether a producer or handler meets the organic requirements, using detailed information from the operation about its specific practices and on-site inspection reports from organic inspectors. There are 39 certifying agents (31 domestic and 8 foreign) accredited by USDA certifying organic mushroom operations and 12 certifying agents (8 domestic and 4 foreign) accredited by USDA certifying organic pet food processing that would require 308 reporting responses to certify each organic operation and 51 responses for staff training.<sup>45</sup>

The proposed mushroom production and pet food handling standards would require certifying agents of current mushroom producers and pet food manufacturers to spend one hour for each producer or manufacturer to verify their compliance with the proposed standards. In addition, it is estimated that certifying agents would need to provide one hour of training regarding the proposed mushroom production and pet food handling standards to their certification review personnel. Each certifying agent certifying organic mushroom production would incur approximately eight hours of first-time reporting burden (one hour for training and seven hours for approximately seven operations per certifier)<sup>46</sup> but no new recordkeeping burden due to this proposed rule. Each certifying agent certifying organic pet food processing

would incur approximately four hours of first-time reporting burden (one hour for training and three hours for approximately three operations per certifier)<sup>47</sup> but no new recordkeeping burden due to this proposed rule. AMS estimates the costs of the one-time reporting burden for all certifying agents to review and verify the compliance of the new or updated organic system plan of mushroom producers and pet food manufacturers and the provision of training at \$16,170.00. This is based on 279 labor hours at \$47.93 per labor hour (including benefit costs)<sup>48</sup> for 39 domestic certifying agents, totaling \$13,381.73; and 80 labor hours at \$34.94 per labor hour (including benefit costs)<sup>49</sup> for 12 foreign certifying agents, totaling \$2,788.27. (See Table 4: USDA Certifying Agents Reporting Burden).

TABLE 4—USDA CERTIFYING AGENTS (CERTIFYING MUSHROOM PRODUCERS AND PET FOOD HANDLERS) REPORTING BURDEN

Respondent categories	Number of respondents	Wage + benefits	Total reporting hours	Total costs
USDA U.S.-Based Certifiers—Mushrooms .....	31	\$47.93	247.21	\$11,848.04
USDA Foreign-Based Certifiers—Mushrooms .....	8	34.94	64.79	2,229.18
USDA U.S.-Based Certifiers—Pet food .....	8	47.93	32	1,533.69
USDA Foreign-Based Certifiers—Pet food .....	4	34.94	16	559.09
USDA Certifiers—All .....	* 51	.....	359	16,170.00

\* Some certifiers may certify both pet food and mushroom operations but are counted as separate entities in this column.

3. Organic Inspectors

Inspectors conduct on-site inspections of certified operations and operations applying for certification and report the findings to the certifying agent. Inspectors may be independent contractors or employees of certifying agents. Inspectors provide an inspection report to the certifying agent for each operation inspected (§ 205.404(a)). Currently, AMS estimates that inspectors would receive one hour of training on the proposed mushroom production and pet food handling

standards. Inspectors do not have recordkeeping obligations, as certifying agents maintain the records of inspection reports.

According to the International Organic Inspectors Association, there are approximately 184 inspectors in the world that inspect organic crop, livestock, handling, and/or wild crop operations' compliance with USDA organic standards.<sup>50</sup> Thus, the proposed rule would require approximately 184 reporting responses from inspectors. AMS estimates the costs of the one-time

reporting burden for all inspectors to receive one hour of training on the proposed mushroom production and pet food handling standards at \$5,111.82. This is based on 123 labor hours for 123 U.S.-based inspectors to receive training in the U.S. at \$30.52 per labor hour, (including benefit costs),<sup>51</sup> totaling \$3,754.35 in costs; and 61 labor hours for 61 foreign-based inspectors to receive training at \$22.25 per hour (including benefit costs),<sup>52</sup> totaling \$1,357.47 in costs. (See Table 5: Inspectors Reporting Burden).

<sup>45</sup> USDA. Organic Integrity Database. <https://organic.ams.usda.gov/IntegrityPlus/Search.aspx>. To obtain the relevant data, search for "mushroom" and "pet,dog,canine,cat,feline" in the "Certified Products" field. Accessed May 9, 2023.

<sup>46</sup> This is the calculated average number of mushroom operations (272) per certifier certifying mushrooms (39).

<sup>47</sup> This is the calculated average number of pet food operations (36) per certifier certifying pet food (12).

<sup>48</sup> The cost of labor per hour for domestic certifying agents was obtained by calculating the sum of the mean hourly wage for compliance officers and the hourly cost of worker benefits. In May 2022, the mean hourly wage for Compliance Officers (Standard Occupational Classification (SOC) code 13–1041) was \$37.01. U.S. Bureau of

Labor Statistics. (April 25, 2023). "Occupational employment and wage statistics: May 2022 national occupational employment and wage estimates United States." [https://www.bls.gov/oes/current/oes\\_nat.htm#top](https://www.bls.gov/oes/current/oes_nat.htm#top). Domestic benefits were reported to be 29.5 percent of total average civilian employer compensation costs. U.S. Bureau of Labor Statistics. (June 16, 2023). "Employer costs for employee compensation summary." USDL–23–0488. <https://www.bls.gov/news.release/ecec.nr0.htm>.

<sup>49</sup> See footnote 48.

<sup>50</sup> This estimate is based on data from the International Organic Inspectors Association Membership Directory, available at: <https://www.ioia.net/member-directory>.

<sup>51</sup> The cost of labor per hour for domestic inspectors was obtained by calculating the sum of the mean hourly wage for agricultural inspectors

and the hourly cost of worker benefits. In May 2022, the mean hourly wage for Agricultural Inspectors (Standard Occupational Classification (SOC) code 45–2011) was \$23.57. U.S. Bureau of Labor Statistics. (April 25, 2023). "Occupational employment and wage statistics: May 2022 national occupational employment and wage estimates United States." [https://www.bls.gov/oes/current/oes\\_nat.htm#top](https://www.bls.gov/oes/current/oes_nat.htm#top). Domestic benefits were reported to be 29.5 percent of total average civilian employer compensation costs. U.S. Bureau of Labor Statistics. (June 16, 2023). "Employer costs for employee compensation summary." USDL–23–0488. <https://www.bls.gov/news.release/ecec.nr0.htm>.

<sup>52</sup> See footnote 48.

TABLE 5—INSPECTORS REPORTING BURDEN

Respondent categories	Number of respondents	Wage + benefits	Total reporting hours	Total costs
USDA U.S.-based Inspectors .....	123	\$30.52	123	\$3,754.35
USDA Foreign based inspectors .....	61	22.25	61	1,357.47
USDA Inspectors—All .....	184	.....	184	5,111.82

Summary of Reporting Burden  
 Total (Domestic and Foreign) Information Collection Cost (Reporting) of Proposed Rule: \$36,673.37 (See Table 6: Total Reporting Burden)  
 AMS estimates the public reporting burden for this information collection to

be 851 hours at a total cost of \$36,673.37 with a total number of 543 respondents. Respondents comprise currently certified organic mushroom producers and pet food manufacturers, USDA accredited certifying agents, and inspectors.

TABLE 6—TOTAL REPORTING BURDEN

	Total number of reporting respondents	Total reporting hours—all	Total all costs
Summary of Tables 1, 2, & 3 .....	543	851	\$36,673.37

Total All Reporting Burden Cost: \$36,673.37.

Estimate of Burden: Public reporting burden for the collection of information is estimated to average 1.57 hours per year per response.

Respondents: Certified operations, certifying agents, and inspectors.

Estimated Number of Reporting Respondents: 543.

Estimated Number of Reporting Responses: 851.

Estimated Total Reporting Burden on Respondents: 851 hours.

Estimated Total Annual Reporting Hours per Reporting Respondent: 1.57 reporting hours per reporting respondent.

Estimated Total Annual Reporting Responses per Reporting Respondent: 1.57 reporting responses per reporting respondent.

Estimated Total Annual Reporting Hours per Reporting Response: 1.57 hours per reporting response.

Total Domestic Reporting Burden Cost: \$30,701.72

Respondents: Certified operations, certifying agents, and inspectors.

Estimated Number of Domestic Reporting Respondents: 422 respondents.

Estimated Number of Domestic Reporting Responses: 662 responses.

Estimated Total Annual Reporting Burden on Domestic Respondents: 662 hours.

Total Foreign Reporting Burden Cost: \$5,971.65

Respondents: Certified operations, certifying agents, and inspectors.

Estimated Number of Foreign Reporting Respondents: 121 respondents.

Estimated Number of Foreign Reporting Responses: 189 responses.

Estimated Total Annual Reporting Burden on Foreign Respondents: 189 hours.

Summary of Recordkeeping Burden

There are no expected recordkeeping burdens as a result of the proposed rule.

Comments

AMS is inviting comments from all interested parties concerning the information collection that would be required as a result of the proposed amendments to 7 CFR part 205. AMS seeks comment on the following subjects:

- Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information would have practical utility.
- The accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used.
- Ways to enhance the quality, utility, and clarity of the information to be collected.

4. Ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

List of Subjects in 7 CFR Part 205

Administrative practice and procedure, Agricultural commodities, Agriculture, Animals, Archives and records, Fees, Imports, Labeling, Livestock, National List, National Organic Standards Board (NOSB), Organically produced products, Plants, Reporting and recordkeeping requirements, Seals and insignia, Soil conservation, Sunset.

For the reasons stated in the preamble, AMS proposes to amend 7 CFR part 205 as follows:

PART 205—NATIONAL ORGANIC PROGRAM

- 1. The authority citation for part 205 continues to read as follows:  
 Authority: 7 U.S.C. 6501–6524.
- 2. Amend § 205.2 by:
  - a. Revising the definitions of “Compost” and “Crop”;
  - b. Adding in alphabetical order definitions for “Mushroom”, “Mushroom substrate”, “Mycelium”, “Pet”, “Pet food”, “Spawn”, and “Spawn media”; and
  - c. Revising the definition of “Wild crop”.



The revisions and additions read as follows:

§ 205.2 Terms defined.

\* \* \* \* \*

Compost. The product of a managed process through which microorganisms break down plant and animal materials into more available forms suitable for application to the soil or as a component of mushroom substrate.

\* \* \* \* \*

Crop. Pastures, cover crops, green manure crops, catch crops, mushrooms, or any plant or part of a plant intended to be marketed as an agricultural product, fed to livestock, or used in the field to manage nutrients and soil fertility.

\* \* \* \* \*

Mushroom. The edible, fleshy, spore-bearing fruiting body of a fungus.

Mushroom substrate. The base material, such as grain, wood, and/or other agricultural materials, from which mushrooms are cultivated or grown. This base material can include composted material.

Mycelium. A mass of branching, thread-like hyphae (fungal structures).

\* \* \* \* \*

Pet. Any domestic animal not used for the production and sale of food, fiber, or other agricultural-based consumer products.

Pet food. Any commercial feed prepared and distributed for pet consumption.

\* \* \* \* \*

Spawn. Spawn media that has been colonized by mycelium, which is used to inoculate mushroom substrates.

Spawn media. A carrier, such as grains or minerals, that, when colonized with mycelium, creates spawn.

\* \* \* \* \*

Wild crop. Any mushroom, plant, or portion of a plant that is collected or harvested from a site that is not maintained under cultivation or other agricultural management.

\* \* \* \* \*

■ 3. Add § 205.210 to read as follows:

§ 205.210 Mushroom production practice standard.

(a) The producer must manage mushroom production in accordance with the provisions of §§ 205.200, 205.201, 205.202 as applicable, 205.203(e), 205.206(a)(2) and(3), and 205.206(b) through (f). The producer may manage crop nutrients for mushroom production in accordance with the provisions of § 205.203(d)(1) through (5).

(b) The producer must manage mushroom substrate and spawn media,

including spent mushroom substrate and spawn media, in a manner that does not contribute to contamination of crops, spawn, mushroom substrate, soil, or water by pathogenic organisms, heavy metals, or residues of prohibited substances.

(c) Mushroom substrate and spawn media may be composed of the following materials in accordance with the conditions specified in this paragraph (c):

(1) Composted plant and animal materials. Compost used in mushroom production must be described in the organic system plan. It must be produced through a process that maintains a temperature of at least 131 °F for at least three days;

(2) Uncomposted plant materials. Uncomposted plant materials must be organically produced: Except, that, nonorganically produced uncomposted plant materials may be used in mushroom production when an equivalent organically produced variety is not commercially available. Prohibited substances may not be applied to nonorganically produced uncomposted plant materials after harvest.

(3) Nonsynthetic substances, except those on the National List of nonsynthetic substances prohibited for use in organic crop production (§ 205.602); and

(4) Synthetic substances on the National List of synthetic substances allowed for use in organic crop production (§ 205.601).

(d) Spawn must be organic: Except, that, nonorganic spawn may be used to produce an organic crop when an equivalent organically managed variety is not commercially available. Organic spawn must use organic agricultural products as the spawn media and be under continuous organic management after the mycelium is applied to the organic spawn media.

■ 4. Amend § 205.270 by redesignating paragraph (c) as paragraph (d) and adding new paragraph (c) to read as follows:

§ 205.270 Organic handling requirements.

\* \* \* \* \*

(c) In addition to the substances described in paragraph (b) of this section, substances allowed under § 205.603(d)(2) and (3) may be used in or on pet food intended to be sold, labeled, or represented as “organic” or “made with organic (specified ingredients or food group(s))” pursuant to § 205.301(b) and (c). Pet food labeled as organic must be labeled pursuant to

the applicable portions of subpart D of this part.

\* \* \* \* \*

■ 5. Amend § 205.601 by revising paragraphs (i) introductory text and (j) introductory text to read as follows:

§ 205.601 Synthetic substances allowed for use in organic crop production.

\* \* \* \* \*

(i) As crop disease control.

\* \* \* \* \*

(j) As crop or soil amendments.

\* \* \* \* \*

■ 6. Amend § 205.605 by redesignating paragraphs (b)(36) and (37) as paragraphs (b)(37) and (38), respectively, and adding new paragraph (b)(36) to read as follows:

§ 205.605 Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group(s)).”

\* \* \* \* \*

(b) \* \* \*

(36) Taurine—for use only in pet food.

\* \* \* \* \*

Erin Morris,

Associate Administrator, Agricultural Marketing Service.

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DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2024-BT-STD-0002]

Energy Conservation Program: Energy Conservation Standards for Dishwashers, Residential Clothes Washers, and Consumer Clothes Dryers

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Request for information.

SUMMARY: In light of the United States Court of Appeals for the Fifth Circuit recently granting a petition for review of a final rule published by the U.S. Department of Energy (“DOE”) on January 19, 2022, and remanding the matter to DOE for further proceedings, DOE is initiating an information and data gathering effort on whether “short-cycle” product classes for dishwashers, residential clothes washers, and consumer clothes dryers are warranted under the Energy Policy and Conservation Act. In this request for information, DOE solicits data and information from the public to help