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Introduction

The Real Organic Project has been created to help educate and connect those who care about organic farming as practiced around the world. Our mission is to grow people's understanding of foundational organic values and practices. One of our goals is to create an add-on label to USDA certified organic to provide more transparency on these farming practices. USDA organic certification is a prerequisite to participate in the add-on program.

The Real Organic Project is family farmer-driven and embraces centuries-old organic farming practices along with new scientific knowledge of ecological farming. We believe that crops grown in soil and livestock raised on pasture-based systems are fundamental to organic farming. Healthy soils equal healthy crops and livestock, which equal healthy people and a healthy climate.

The USDA has recently embraced hydroponics and has dropped the proposed rule on animal welfare. Many farmers now feel the USDA organic label no longer adequately reflects how we farm, and many in the organic community feel a loss of identity within the label. Our community worked for years to build an organic label that people can trust.

Much about the National Organic Program is a success, and most of the farms being certified deserve to be called real organic. But the farm products from a tiny minority of large industrial operations now being certified are at odds with the original intent of organic farming. Unfortunately, these few operations produce a large, and growing, proportion of the food labeled organic on the market today.

With this add-on label, farmers are creating a new way of communicating our practices to consumers who care. Our simple goal is transparency in the marketplace through our “Know Your Farmer” videos. Through this effort, we have brought together farmers, scientists, eaters, and advocates whose common interest is to support real organic farming.

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Standards for Origin of Livestock

I. Background

The history of discussions and actions related to the origin of livestock by both the NOSB and the NOP is long and convoluted. A detailed summary of those actions is given in the Federal Register notice of a proposed rule on the Origin of Livestock of April 28, 2015 ([80 FR 23455](#)).

As pointed out in that Federal Register notice, between 1994 and 2006, the NOSB made six recommendations regarding origin of dairy animals, and between 1997 and 2000, AMS issued two proposed rules and a final rule pertaining to the origin of livestock. AMS also issued a proposed and final rule implementing congressional amendments to OFPA regarding feed for transitioning dairy animals. Numerous public comments were given during these rulemaking events.

In spite of all these rulemaking actions and public comments in the past, there are still some major problems with the origin of livestock rule. In July 2013, the USDA Office of Inspector General (OIG) published an audit report on organic milk operations stating that certifying agents were interpreting the origin of livestock requirements differently. According to the OIG report, three of the six certifiers interviewed by OIG allowed producers to continuously transition additional herds to organic milk production, while the other three certifiers did not permit this practice. OIG recommended that a proposed rule be issued to clarify the standard and ensure that all certifiers consistently apply and enforce the origin of livestock requirements. The proposed rule of April 28, 2015 would have fixed those problems, but that rule was never finalized.

The current NOP rule on the origin of dairy livestock is as follows:

§205.236 Origin of livestock

(a) Livestock products that are to be sold, labeled, or represented as organic must be from livestock under continuous organic management from the last third of gestation or thatching: Except, That:

(2) Dairy animals. Milk or milk products must be from animals that have been under continuous organic management no later than 1 year prior to the production of the milk or milk products that are to be sold, labeled, or represented as organic, Except,

(i) That, crops and forage from land included in the organic system plan of a dairy farm, that is in the third year of organic management, may be consumed by the dairy animals of the farm during the 12-month period immediately prior to the sale of organic milk and milk products; and

(ii) That, when an entire, distinct herd is converted to organic production, the producer may, provided no milk produced under this subparagraph enters the stream of commerce labeled as organic after June 9, 2007: (a) For the first 9 months of the year, provide a minimum of 80-percent feed that is either organic or raised from land included in the organic system plan and managed in compliance with organic crop requirements; and (b) Provide feed in compliance with §205.237 for the final 3 months.

(iii) Once an entire, distinct herd has been converted to organic production, all dairy animals shall be under organic management from the last third of gestation.

II. Discussion

The crux of the problem with the current rule for origin of dairy livestock is that there exists a two-track system for conversion of conventional dairy animals to organic. One track is that a whole herd can be converted to organic over a 12-month period, but thereafter no animals can be transitioned from conventional to organic on that farm. The other track is that for herds that did not use the one-time conversion, producers can continuously transition dairy animals into organic over time, using a 12-month conversion period for each animal transitioned.

A further complication is that some NOP accredited certifying organizations allow farms to continuously transition dairy cows from conventional to organic, and other certifying organizations do not allow that.

Numerous public comments over the years of rulemaking have pointed out that this two-track system creates an uneven playing field for organic dairy producers. The NOP proposed rule of April 28, 2015 would have fixed that problem by removing the option of open-endedly converting conventionally raised dairy animals to organic, as called for by an overwhelming majority of public comments. Unfortunately, the USDA never had the political will to finalize that proposed rule on the origin of livestock.

An additional problem with the current standards for origin of dairy livestock is that the one-time herd transition can be abused by allowing one legal entity to transition a dairy herd and then turn around and sell those animals to another legally separate—but financially connected—entity. The Western Organic Dairy Producers (WODP) has called for the elimination of the one-time transition of dairy herds from conventional to organic to stop that practice. WODPA and others argue that there are now enough organic dairy animals available in the market to grow the organic dairy industry.

Others have argued that it still is necessary to have a one-time dairy transition program for the many dairy farms that will wish to transition from

conventional to organic in the future and who want to retain the animal genetics they may have worked for generations to develop. A compromise position is to continue to allow one-time transitions but limit the number of animals that can be transitioned in a one-time transition of a dairy from conventional to organic, so that a transitioning dairy can save their best genetics.

III. ROP Standards for Origin of Livestock

1. Dairy cows can only be transitioned from conventional to organic with a one-time transition of a single-entity dairy herd during a 12-month transition period. The continuing or recurring transition of conventional animals to organic is prohibited.
2. A maximum of 200 dairy animals may be transitioned in a one-time transition, and at least 40% of the transitioning herd must be under two years of age.
3. A 12-month transition, from conventional to organic, does not begin until a completed application is received by the ROP program administrator.
4. All animals to be transitioned must be on the farm at the beginning of the transition, and each animal must have an identification name or number that can be positively associated with the animal (e.g., ear tattoo, or ear tag).
5. A complete list of all animals on the farm, including identification number, breed, dam, and birthdate, must be submitted with the initial application.
6. 100% of organic standards, including pasture requirements, outdoor access, feed requirements and appropriate healthcare materials must be met for all groups of animals for the entire transition year.
7. Organic and non-organic lactating animals may not be kept on the same farm.

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Standards for Dairy Grazing

I. Background

The Final Rule of the National Organic Program (NOP) of December 21, 2000, stated:

§205.239 Livestock living conditions.

(a) The producer of an organic livestock operation must establish and maintain livestock living conditions which accommodate the health and natural behavior of animals, including:

(1) Access to the outdoors, shade, shelter, exercise areas, fresh air, and direct sunlight suitable to the species, its stage of production, the climate, and the environment;

(2) Access to pasture for ruminants;

Over time it was found that some large dairies with thousands of cows were keeping the cows in dry-lots which had little or no grass but were designated as “pasture.” Complaints that those operations were not meeting the rule for “access to pasture for ruminants” were made to the NOP, but the practice continued.

After much discussion and debate within the organic community and recommendations from the NOSB, the NOP issued a pasture rule, which took effect on June 17, 2011. The new pasture rule amended the organic rule to include the following provisions:

§205.237 Livestock feed.

(b) The producer of an organic operation must not:

(8) Prevent, withhold, restrain, or otherwise restrict ruminant animals from actively obtaining feed grazed from pasture during the grazing season, except for conditions as described under §205.239(b) and (c).

(c) During the grazing season, producers shall:

(1) Provide not more than an average of 70 percent of a ruminant's dry matter demand from dry matter fed (dry matter fed does not include dry matter grazed from residual forage or vegetation rooted in pasture). This shall be calculated as an average over the entire grazing season for each type and class of animal. Ruminant animals must be grazed throughout the entire grazing season for the geographical region, which shall be not less than 120 days per calendar year. Due to weather, season, and/or climate, the grazing season may or may not be continuous.

(2) Provide pasture of a sufficient quality and quantity to graze throughout the grazing season and to provide all ruminants under the organic system plan with an average of not less than 30 percent of their dry matter intake from grazing throughout the grazing season: Except, That,

(i) Ruminant animals denied pasture in accordance with §205.239(b)(1) through (8), and § 205.239(c)(1) through (3), shall be provided with an average of not less than 30 percent of their dry matter intake from grazing throughout the periods that they are on pasture during the grazing season;

(ii) Breeding bulls shall be exempt from the 30 percent dry matter intake from grazing requirement of this section and management on pasture requirement of §205.239(c)(2); Provided, That, any animal maintained under this exemption shall not be sold, labeled, used, or represented as organic slaughter stock.

(d) Ruminant livestock producers shall:

(1) Describe the total feed ration for each type and class of animal. The description must include:

(i) All feed produced on-farm;

(ii) All feed purchased from off -farm sources;

(iii) The percentage of each feed type, including pasture, in the total ration;
and

(iv) A list of all feed supplements and additives.

(2) Document the amount of each type of feed actually fed to each type and class of animal.

(3) Document changes that are made to all rations throughout the year in response to seasonal grazing changes.

(4) Provide the method for calculating dry matter demand and dry matter intake.

§205.238 Livestock health care practice standard.

(a) The producer must establish and maintain preventive livestock health care practices, including:

(2) Provision of a feed ration sufficient to meet nutritional requirements, including vitamins, minerals, protein and/or amino acids, fatty acids, energy sources, and fiber (ruminants);

(3) Establishment of appropriate housing, pasture conditions, and sanitation practices to minimize the occurrence and spread of diseases and parasites;

(4) Provision of conditions which allow for exercise, freedom of movement, and reduction of stress appropriate to the species.

§205.239 Livestock living conditions.

(a) The producer of an organic livestock operation must establish and maintain year-round livestock living conditions which accommodate the health and natural behavior of animals, including:

(1) Year-round access for all animals to the outdoors, shade, shelter, exercise areas, fresh air, clean water for drinking, and direct sunlight, suitable to the species, its stage of life, the climate, and the environment: Except, that, animals may be temporarily denied access to the outdoors in accordance with §§205.239(b) and (c). Yards, feeding pads, and feedlots may be used to provide ruminants with access to the outdoors during the non-grazing season and supplemental feeding during the grazing season. Yards, feeding pads, and

feedlots shall be large enough to allow all ruminant livestock occupying the yard, feeding pad, or feedlot to feed simultaneously without crowding and without competition for food. Continuous total confinement of any animal indoors is prohibited. Continuous total confinement of ruminants in yards, feeding pads, and feedlots is prohibited.

(2) For all ruminants, management on pasture and daily grazing throughout the grazing season(s) to meet the requirements of §205.237, except as provided for in paragraphs (b), (c), and (d) of this section.

(3) Appropriate clean, dry bedding. When roughages are used as bedding, they shall have been organically produced in accordance with this part by an operation certified under this part, except as provided in §205.236(a)(2)(i), and, if applicable, organically handled by operations certified to the NOP.

(4) Shelter designed to allow for:

(i) Natural maintenance, comfort behaviors, and opportunity to exercise;

(ii) Temperature level, ventilation, and air circulation suitable to the species; and

(iii) Reduction of potential for livestock injury;

(5) The use of yards, feeding pads, feedlots and laneways that shall be well-drained, kept in good condition (including frequent removal of wastes), and managed to prevent runoff of wastes and contaminated waters to adjoining or nearby surface water and across property boundaries.

(b) The producer of an organic livestock operation may provide temporary confinement or shelter for an animal because of:

(1) Inclement weather;

(2) The animal's stage of life: Except, that lactation is not a stage of life that would exempt ruminants from any of the mandates set forth in this regulation;

(3) Conditions under which the health, safety, or well-being of the animal could be jeopardized;

(4) Risk to soil or water quality;

(5) Preventive healthcare procedures or for the treatment of illness or injury (neither the various life stages nor lactation is an illness or injury);

(6) Sorting or shipping animals and livestock sales: Provided, that, the animals shall be maintained under continuous organic management, including organic feed, throughout the extent of their allowed confinement;

(7) Breeding: Except, that, bred animals shall not be denied access to the outdoors and, once bred, ruminants shall not be denied access to pasture during the grazing season; or

(8) 4-H, Future Farmers of America and other youth projects, for no more than one week prior to a fair or other demonstration, through the event and up to 24 hours after the animals have arrived home at the conclusion of the event. These animals must have been maintained under continuous organic management, including organic feed, during the extent of their allowed confinement for the event.

(c) The producer of an organic livestock operation may, in addition to the times permitted under § 205.239(b), temporarily deny a ruminant animal pasture or outdoor access under the following conditions:

(1) One week at the end of a lactation for dry off (for denial of access to pasture only), three weeks prior to parturition (birthing), parturition, and up to one week after parturition;

(2) In the case of newborn dairy cattle for up to six months, after which they must be on pasture during the grazing season and may no longer be individually housed: Provided, that, an animal shall not be confined or tethered in a way that prevents the animal from lying down, standing up, fully extending its limbs, and moving about freely;

(3) In the case of fiber bearing animals, for short periods for shearing; and

(4) In the case of dairy animals, for short periods daily for milking. Milking must be scheduled in a manner to ensure sufficient grazing time to provide each animal with an average of at least 30 percent DMI from grazing throughout the grazing season. Milking frequencies or duration practices cannot be used to deny dairy animals pasture.

(d) Ruminant slaughter stock, typically grain finished, shall be maintained on pasture for each day that the finishing period corresponds with the grazing season for the geographical location: Except, that, yards, feeding pads, or feedlots may be used to provide finish feeding rations. During the finishing period, ruminant slaughter stock shall be exempt from the minimum 30 percent DMI requirement from grazing. Yards, feeding pads, or feedlots used to provide finish feeding rations shall be large enough to allow all ruminant slaughter stock occupying the yard, feeding pad, or feed lot to feed simultaneously without crowding and without competition for food. The finishing period shall not exceed one-fifth (1/5) of the animal's total life or 120 days, whichever is shorter.

(e) The producer of an organic livestock operation must manage manure in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, heavy metals, or pathogenic organisms and optimizes recycling of nutrients and must manage pastures and other outdoor access areas in a manner that does not put soil or water quality at risk.

§205.240 Pasture practice standard.

The producer of an organic livestock operation must, for all ruminant livestock on the operation, demonstrate through auditable records in the organic system plan, a functioning management plan for pasture.

(a) Pasture must be managed as a crop in full compliance with §§205.202, 205.203(d) and (e), 205.204, and 205.206(b) through (f). Land used for the production of annual crops for ruminant grazing must be managed in full compliance with §§205.202 through 205.206. Irrigation shall be used, as needed, to promote pasture growth when the operation has irrigation available for use on pasture.

(b) Producers must provide pasture in compliance with §205.239(a)(2) and manage pasture to comply with the requirements of: §205.237(c)(2), to annually provide a minimum of 30 percent of a ruminant's dry matter intake (DMI), on average, over the course of the grazing season(s); §205.238(a)(3), to minimize the occurrence and spread of diseases and parasites; and §205.239(e) to refrain from putting soil or water quality at risk.

(c) A pasture plan must be included in the producer's organic system plan, and be updated annually in accordance with §205.406(a). The producer may resubmit the previous year's pasture plan when no change has occurred in the plan. The pasture plan may consist of a pasture/rangeland plan developed in cooperation with a Federal, State, or local conservation office: Provided, that, the submitted plan addresses all of the requirements of §205.240(c)(1) through (8). When a change to an approved pasture plan is contemplated, which may affect the operation's compliance with the Act or the regulations in this part, the producer shall seek the certifying agent's agreement on the change prior to implementation. The pasture plan shall include a description of the:

(1) Types of pasture provided to ensure that the feed requirements of §205.237 are being met.

(2) Cultural and management practices to be used to ensure pasture of a sufficient quality and quantity is available to graze throughout the grazing season and to provide all ruminants under the organic system plan, except exempted classes identified in §205.239(c)(1) through (3), with an average of not less than 30 percent of their dry matter intake from grazing throughout the grazing season.

(3) Grazing season for the livestock operation's regional location.

(4) Location and size of pastures, including maps giving each pasture its own identification.

(5) The types of grazing methods to be used in the pasture system.

(6) Location and types of fences, except for temporary fences, and the location and source of shade and the location and source of water.

(7) Soil fertility and seeding systems.

(8) Erosion control and protection of natural wetlands and riparian areas practices.

II. Discussion

The Real Organic standards Board (ROSB) is concerned that despite the strengthening of the NOP grazing requirements with the addition of the June 2011 pasture rule, there is strong evidence that the grazing requirements of the organic standards are not being met. The Cornucopia Institute has filed multiple complaints to the NOP as a result of evidence Cornucopia has gathered to indicate that some large dairies—with thousands of cows at one site—are not meeting the requirements of the pasture rule.

In May, 2017, the Washington Post published the results of its in-depth investigation of a 15,000-cow dairy in Colorado, finding little evidence that the dairy was coming close to meeting the requirements of the pasture rule. In spite of these findings and complaints to the NOP, the NOP has not taken action to penalize those confinement dairy operations or to direct accredited organic certifying agencies to require stricter enforcement of the pasture rule.

Many organic dairy farms are designed around their grazing system and greatly exceed the NOP pasture requirement that 30% of a ruminant's dry matter intake (DMI) come from pasture during the grazing season. A growing trend is for organic dairy farmers to produce and market "grass milk," which is milk produced without any supplemental grain feeding. Cows spending most of their time on pasture and getting most of their diet from grazing forages are healthier, and their milk provides a healthier nutritional profile for consumers.

The ROSB believes that the NOP's pasture rule needs to be strictly enforced. However, the ROSB also believes that the requirement that only 30% of a ruminant's DMI come from grazing is minimal and considerably less than what should be required of an organic farm raising ruminant animals. Therefore, the ROSB proposes that the NOP's grazing requirement be increased to 50% of DMI from pasture during the grazing season.

A 50% pasture requirement would still allow organic producers to feed a significant amount of grain or other non-pasture feeds. For example, a 1200-pound dairy cow will have a daily DMI of about 36 pounds (about 3% of body weight). If that cow is required to get 50% of its daily DMI from pasture, it could still get 18 pounds of its DMI from grain or other feed sources.

There are physical and biological limitations to grazing milking cows daily and bringing the cows back to the milking facility multiple times per day. As herd size increases, it becomes increasingly difficult—and eventually impossible—to meet a grazing requirement of 50% of milking cows' DMI from grazing throughout the grazing season. In fact, experienced dairy graziers have pointed out that as milking herds approach 1000 cows, it becomes difficult to meet even the NOP grazing rule of 30% DMI.

III. ROP Standards for Grazing of Ruminant Animals

1. A minimum of 40% DMI and a goal of 50% or greater DMI from pasture averaged over the entire grazing season for each type and class of animal (e.g., milking cows, dry cows, heifers). Farms below 50% DMI must provide a plan for how to achieve 50%, or describe the reasonable impediments to achieving 50%.
2. The grazing season is defined as beginning two weeks after the average normal 24-hour temperature for the farm's specific locale rises above 45° F and ends when the average normal 24-hour temperature declines to 45° F. It includes all months in between in which pasture forages normally grow in the locale. The grazing season can be suspended for time periods when the average normal 24-hour temperature in the locale rises above 80° F. It must commence again two weeks after the average normal 24-hour temperature declines to 80° F.
3. The ROP Program Administrator can make exceptions for documented cases of droughts or floods.
4. The maximum herd size for dairy cows grazing pastures associated with a single milking facility shall be 1000 animal units. Upon written request, variances may be granted based on uniquely favorable growing climates that can achieve 50% DMI or greater from pasture.

5. Certifiers must require producers to complete a calculation matrix for each grazing group and for each time period in which the ration changes. Inputs for the calculation matrix should include the average animal weight, average total daily DMI, and the DMI from non-pasture feed sources. The calculation output must document the percent DMI from non-pasture feeds, and by subtraction specify the percent DMI from pasture grazing.
6. Producers must document their pasture acres, average pasture yields, and numbers of grazing animals in each grazing group.

Terms Defined

Animal Units: The sum of the weights of all animals in a group divided by 1000.

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ROP Standards for Grown in the Ground

1. Intent. Organic crops are grown in the soil, in the ground. Organic terrestrial plant production must be a soil-based system in which plant roots grow in healthy, living soil. Biological activity, essential for healthy crops must be supported by sound soil stewardship. Soil management must maintain or improve soil organic matter content and must select and implement stewardship practices that maintain or improve the physical, chemical and biological condition of the soil and minimize soil erosion. Importantly, soil must provide the significant majority of nourishment for plants.
2. Connection to Subsoil. Organic terrestrial crops must be produced in-the-soil in-the-ground with plant roots in living soil, or in living soil mixed or fertilized with materials and products allowed in organic production, in connection with the subsoil and bedrock. Aquatic plants, such as water cress which naturally grow in water, are excluded from

this requirement. Mushrooms, which are not plants and therefore do not depend on minerals from soil, are excluded from this requirement.

3. Hydroponics Prohibited. All forms of hydroponic crop production, which is a generic class of soil-less production whereby terrestrial plants are grown with their roots in a nutrient solution only or in an inert medium to which a nutrient solution is added, are prohibited. Aquatic plants are excluded from this prohibition.
4. Containers Prohibited. Growing terrestrial plants to harvest in containers, bags, or similar vessels, in which the roots are not in connection with the soil, the subsoil and the bedrock is prohibited. ROP farms may harvest minor production from containers provided products harvested from containers are not labeled ROP, and do not represent more than 1% of total farm sales.
5. Transplants Allowed. In order to facilitate traditional organic propagation and production methods, growing annual or perennial seedlings or transplants in container vessels for further transplanting into soil is permitted so long as: 1) all substrate materials used are allowed in NOP organic production, and 2) the transplant growth life cycle occurs where plant roots in living soil in connection with the subsoil and bedrock must provide the majority of nutrients, as measured from time of initial seeding/propagation to time of commercial crop harvest, and is measured by crop mass.
6. Ornamentals and Herbs Sold in Containers. Ornamental plants and herbs may be grown and sold in the containers in which they grew. This will ensure that consumers understand how these plants were produced. All substrate materials used must be allowed in NOP organic production.
7. Microgreens Production. Microgreens are a crop analogous to sprouts. Therefore, microgreens may be grown in container vessels provided that 1) no solid or liquid fertility is added to the container after the crop is planted, and 2) the microgreens must be harvested within 21 days after planting. Analogous to sprouts, the seed used in the production of all microgreens must be NOP Certified Organic.
8. Temporary Exemptions. Farmers who have in the past grown NOP Certified Organic plants in container vessels not connected with the soil, subsoil and the bedrock, for three or more of the last five years, and require time to transition to in-the-ground production, upon

submission of a written transition plan, which demonstrates substantial dedication to the transition process, as well as effective metrics for monitoring transition progress, may be granted approval in writing from the Program Administrator to a limited, one-time, revocable, conditional exemption from Section 1.4 for a period not to exceed 24 months from the date of initial publishing of these standards, so long as in the sole judgment of the Program Administrator, the aforementioned approved transition plan is being strictly adhered to.

Standards for Soil Management

I. Background

Organic Farming was defined back in its infancy as a farming method that is centered on maintaining fertile and biologically healthy soil. The Organic Foods Production Act (OFPA), and the resulting USDA/National Organic Program (NOP) Standards reflect this well. Section 205.203 of the National Organic Program Regulations does a fine job of describing soil management practices on an organic farm.

However, there is an issue. Even though the word “must” is used in the pertinent opening paragraphs of this section of the regulation, the NOP has allowed certifiers and their growers to ignore soil management if they (the certifier) think it is not applicable. Although we believe there are a handful of situations where soil is not required for production, traditional organic standards require soil for ALL production of plants to harvest.

Furthermore, it is the management of the soil that makes the farm system and land organic. In most instances, it is the land that gets certified and the farm creates a farm system plan to outline the practices that build soil health. The driving force behind the Real Organic Project is our belief that organic production standards should be based on the traditional organic guidelines of crops being grown in managed soil, with only a few, very clear exceptions explained below.

II. Discussion

The ROP standards for soil management are the NOP standards stated in Section 205.203 of the NOP Regulatory Text, however the ROP standards honors the legal meaning of the word “must.” In section 205.203 the National Organic Program uses the word “must” because that is what is required by the law (the OFPA). Crop production that is not based on soil may be productive, safe, environmentally sound, etc., but it is not organic.

Two areas of the NOP soil management section need clarification. First is the misinterpreted section on managing livestock manure and composting guidelines. Second is the limited exceptions to the soil management requirement.

1. Compost

At the heart of soil husbandry on many organic farms is livestock manure. Livestock manure carries human pathogens and other contaminants. As a result, the NOP regulations require that manure must be handled in such a way that it does not “contribute to contamination of the crops, soil or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.” In order to reduce the risk of food contamination from human pathogens, the NOP requires either a waiting period between application of manure and harvest of the organic crop, that it be applied to land producing non-food crops, or composting of the manure.

In Section 205.203(c)(2) in their regulation the NOP presents an example of how to make compost. This was misinterpreted by many growers and certifiers to be the only way to make compost. Recognizing this misinterpretation, the National Organic Standards Board (NOSB) convened two task forces that delivered comprehensive reports to the NOSB on compost (2002) and compost tea (2004). The NOSB then made a final recommendation to the NOP on compost, compost tea, processed manure, and vermicompost in November 2006.

The NOP concurred with the NOSB that the examples provided in § 205.203(c)(1-3) is not a finite list of acceptable plant and animal materials for use in organic production. For example, there are many other acceptable

ways to make compost. Site-specific variation in feedstock materials, management practices, and production requirements dictate that organic producers exercise flexibility in managing plant and animal materials on their operations.

On July 22, 2011 a Guidance from the NOP went into effect (**NOP 5021 – Compost and Vermicompost in Organic Crop Production**). This is presented in the [Appendix](#).

1. Exceptions to Soil Management Requirement

Exceptions where soil management is not required because it is not applicable are limited to the following:

1) Sprouts

Sprouting of seeds does not need to take place in soil because sprouting should be considered a processing of an organic product. The seed is the certified organic product, and sprouting the organic seeds is simply processing. It is not analogous to growing a crop since no new crop production is occurring. The seed is the organic product, it is simply germinating. For the sprout to be considered organic the seed must have been produced on a farm according to the organic standards. Sprout production requires only organic seed and water. Soil is not used, so the requirements for soil are not applicable. Sprout production should be certified as a handling operation.

2) Mushrooms

Mushrooms are not plants and so, similar to other non-plant agricultural products, they should be exempt from a required direct link to soil. Mushrooms are in the kingdom Fungi. Unlike plants, mushrooms do not depend on minerals from soil. Rather, mushrooms are nourished by food fed to them by the producer. The key to the organic status of mushrooms is that their food must be produced according to organic production standards.

3) Aquatic plants

These species naturally occur in aquatic (soilless) systems and so soil is not applicable to the organic status.

4) Seedlings and planting stock raised in soil-less media

The raising of these in a soil-less media is only a short period of the whole production time. These crops will spend most of their time growing in the soil, and the short period of time in preparation for their field production is an exception.

We have added these exceptions to the ROP standard as Section (f) of the NOP Section 205.203.

III. ROP Standards for Soil Management

The ROP standards for soil management are the EXACT NOP standards stated in section 205.203 of the NOP Regulatory Text, however the ROP standards honor the legal meaning of the word “must.”

The producer must select and implement tillage and cultivation practices that maintain or improve the physical, chemical, and biological condition of soil and minimize soil erosion.

The producer must manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials.

The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances. Animal and plant materials include:

(1) Raw animal manure, which must be composted unless it is:

(i) Applied to land used for a crop not intended for human consumption;

(ii) Incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil surface or soil particles; or

(iii) Incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil surface or soil particles;

(2) Composted plant and animal materials produced through a process that:

(i) Established an initial C:N ratio of between 25:1 and 40:1; and

(ii) Maintained a temperature of between 131°F and 170°F for 3 days using an in-vessel or static aerated pile system; or

(iii) Maintained a temperature of between 131°F and 170°F for 15 days using a windrow composting system, during which period, the materials must be turned a minimum of five times.

NOTE: The NOP published a guidance document that is meant to help certifiers and producers interpret the manure composting guidelines presented above. Real Organic Project will inspect to the compost standards as specified in the [Appendix](#).

(3) Uncomposted plant materials.

A producer may manage crop nutrients and soil fertility to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances by applying:

(1) A crop nutrient or soil amendment included on the National List of synthetic substances allowed for use in organic crop production;

(2) A mined substance of low solubility;

(3) A mined substance of high solubility: Provided, That, the substance is used in compliance with the conditions established on the National List of nonsynthetic materials prohibited for crop production;

(4) Ash obtained from the burning of a plant or animal material, except as prohibited in paragraph (e) below: Provided, That, the material burned has not been treated or combined with a prohibited substance or the ash is not included on the National List of nonsynthetic substances prohibited for use in organic crop production; and

(5) A plant or animal material that has been chemically altered by a manufacturing process: Provided, That, the material is included on the National List of synthetic substances allowed for use in organic crop production established in §205.601.

The producer must not use:

(1) Any fertilizer or composted plant and animal material that contains a synthetic substance not included on the National List of synthetic substances allowed for use in organic crop production;

(2) Sewage sludge (biosolids) as defined in 40 CFR part 503; and

(3) Burning as a means of disposal for crop residues produced on the operation: Except, That, burning may be used to suppress the spread of disease or to stimulate seed germination.

Exceptions to ROP Soil Management Standards are limited to:

(1) Seed Sprouts and Microgreens

(2) Mushrooms

(3) Aquatic plants

(4) Seedlings and planting stock for transplanting

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Standards for Greenhouse Production

I. Background

The NOP has debated rules for greenhouse production for many years, but it has failed to formulate standards. It is commonly accepted in NOP certification to certify greenhouse vegetable crops with no rotation, but there has never been a guidance on this. It is now becoming common to produce hydroponic crops under 100% artificial light, again with no guidance. The NOP has failed to address the issue of energy use in greenhouses. We will address these issues, using the standards of the Soil Association in England as a guide, as they have developed clear standards for organic greenhouse production.

II. Discussion

The main principle of EU organic greenhouse production is that greenhouse production must be in living soil (mineral soil mixed and/or fertilized with materials and products allowed for outdoor production) in connection with the sub-soil and bedrock. Greenhouse crops must be fertilized primarily from slow release, complex organic materials that decompose in the soil releasing crop nutrients, e.g., compost and animal manures (ideally from certified organic sources), and slow release fertilizer materials such as rock powders.

Responsible use of energy is an important element of sustainability. Therefore, we recommend the development of strategies for responsible energy use in organic farming. In the context of greenhouse production, there should be a focus on light, heating and carbon dioxide. However, the final aim should be a responsible use of energy in all production systems and over the entire production chain. As far as renewable energy is concerned, it is preferable to use energy from renewable sources such as wind, solar,

geothermal, wave, tidal, hydropower, landfill gas, sewage treatment plant gas and biogases.

ROP Standards for Greenhouse Production

1. Control of soil-borne pests and diseases. Soil health must be primarily maintained by the addition of biologically active compost and other organic materials, by the addition of rock powders, by good sanitation, and/or by practices such as crop rotation or other forms of plant diversity (such as intercropping and undersowing). Solarization and shallow steam treatment of the soil (to a maximum depth of 4 inches) are allowed. Deep steam treatment of the soil (to a depth of more than 4 inches) must only be allowed under exceptional circumstances (e.g. severe infestation with nematodes), which must be documented by the grower, and must require special permission from the Program Administrator. Steam sterilization of growing media is not allowed.
2. Light. The provision of artificial light is allowed, if the normal daylight is insufficient for the normal growing of crops. It must only be allowed on dark, overcast days and for extending the daylight period, and only during autumn, winter and early spring. Artificial light is also allowed for the production of container plants such as seedling, herbs, and ornamentals under the same limitations as already described. Artificial light may also be used for photo-periodical induction of flowering.
3. Exceptions to Soil Bound Production. Growing in substrates (containers) is accepted for seedlings and transplants, and for plants which are sold to the consumer together with the pot/container in which they grow (e.g. herbs in pots, ornamentals). Harvested organic vegetables or fruits must come from plants grown in the soil, and not from container or isolated substrate cultures. Microgreens may be produced in containers if there is no feeding of any kind to the container after seeding. Harvest must occur within 21 days of seeding. Seed for microgreens must be 100% organic.
4. Energy use. If the greenhouse energy consumption exceeds 41,000 BTU per ft² per year, an energy analysis is required and a plan for increased energy efficiency and/or greater use of renewable energy must be produced. The need for lighting and heating, the availability of different sources of energy and the state of the art of greenhouse

production vary greatly between different regions. Depending on such regional conditions, different strategies may be necessary to achieve the goal of responsible energy use. We recognize that there is no single recipe for the most responsible use of energy. This task will therefore be difficult to achieve with a single regulation, as long as no scientifically based limit exists. But a process of continuous attention and improvement can lead the way to real change. The heating of greenhouses to assure frost protection to 40 degrees F is allowed without limitation.

5. Rotation. Crop production without a rotation in protected (greenhouse or tunnel) culture is allowed if the producer can:
 - demonstrate that the system builds and maintains the health of the soil and crops;
 - demonstrate that the system is not reliant upon routine use of (approved) pesticides for insect control. Pesticides are intended as a fallback strategy. Intensive growers must create a level of soil health and a rich biological community that allows production without the regular use of pesticides.

The farm must produce a fertility management plan for the protected cropping system. The plan must demonstrate that the growing system maximizes the efficient use of nutrients and builds soil health and fertility.

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Standards for Animal Welfare

I. Background

Organic Livestock Production was defined back in its infancy as a farming method that focuses on preventing health care issues and reducing animal

stress. The Organic Foods Production Act (OFPA), and the resulting USDA/National Organic Program (NOP) Standards reflect this in some areas. Sections 205.236 (Origin of livestock), 205.237 (Livestock Feed), 205.238 (Livestock health care practice standard), 205.239 (Livestock living conditions), and 205.240 (pasture practice standard) all pertain to the care and treatment of organic livestock.

Unfortunately, these standards leave many perceived “loopholes” that the NOP has thus far allowed certifiers and industrial producers to take advantage of. Prominent in these issues are the origin of livestock in dairy cattle, the use of alterations that seem to defy the requirement in §205.238(a)(5) that physical alterations be performed to promote animal welfare in a way that minimizes pain and stress, and the use of screened in “porches” in laying hen operations to qualify as “outdoor access.” In fact, there are glaring holes in the organic regulations when it comes to protections for poultry and pigs, in particular. The pasture practice standard and much of the language regarding the origin and treatment of livestock is specified to apply only to ruminants (cattle, goats, and sheep).

In 2017, a draft rulemaking was proposed: the Organic Livestock and Poultry Production rule (OLPP). Despite some flaws, the OLPP would have changed the regulations to limit the welfare weaknesses found in organics. The rulemaking would have added a completely new, and much needed, section on poultry care. This rulemaking was repeatedly delayed and in March, 2018, it was officially scrapped by the Trump administration.

One of the Real Organic Project central beliefs is that organic production standards should be based on the traditional organic belief that animals should be able to perform natural behaviors outdoors on healthy soil. Factory farm animal production is not Real Organic.

II. Discussion

Consumers value farms that raise animals on pasture and have strong animal welfare practices in place. In addition, research has shown that pasture raised meats, dairy and eggs have healthier nutritional profiles.

The organic regulations require that producers select “... species and types of livestock with regard to suitability for site-specific conditions” [§ 205.238(a)(1)]. However, best management practices can prevent health problems that may be common in some breeds. For example, regulating diet and encouraging natural behaviors can prevent mobility loss and heart issues in some fast-growing breeds of poultry. In addition, we recommend that producers move toward rotational grazing for ruminants and mobile poultry housing units to offer regular access to fresh pasture, effective control of parasites, and to foster soil fertility.

Many of the livestock alterations currently allowed in organic are indicators of poor welfare systems. For example, tail docking in pigs and beak trimming is currently allowed (it is done to prevent injury from cannibalistic behaviors). However, in systems where livestock are given adequate space and are engaged in natural behaviors, these practices are not necessary.

The intent of the following Real Organic Animal Welfare Standards is to implement many of the animal welfare protections that would have been implemented by the rejected OLPP. However, many in the organic community felt the OLPP was weak in some areas, allowing industrial interests to take advantage of the label and placing ethical organic farmers at an economic disadvantage. To address these loopholes, the following Real Organic Standards, in some cases, go beyond what the OLPP would have implemented, for example when it comes to greater poultry space requirements and a requirement that outdoor areas be vegetated. The intent is to cement current practices that are known to be indicators of good animal welfare into the organic label.

III. ROP Standards for Animal Welfare

General management practice standards

1. All individual animals must have daily, year-round access to the outdoors, where the outdoors constitutes at least 50% vegetated cover during the growing season. Vegetative cover may include but is not limited to pasture, bushes, shrubs, hedgerows, and trees.

Exceptions other than those in the Organic Regulations include:

- a. Pigs are exempt from specific vegetative cover requirements, but must have access to vegetative cover during the growing season and must be managed to contribute to long-term soil health and prevent degradation of the soil.
 - b. Yards, feeding pads, and feedlots may be used to provide access to the outdoors during the non-growing season.
2. The following alterations and practices are prohibited:
- a. Needle teeth trimming or grinding, nose ringing, tusk removal, castration after 14 days of age, and tail docking in pigs;
 - b. Tail docking and wattling in cattle;
 - c. Disbudding (removing buds under 2 months of age) without anesthesia or NOP allowed pain relief (for example, Dull It). Tipping horns (cutting the non-living tissue) and banding horns is allowed without anesthesia. Dehorning (removing horns over 2 months of age) must always be done by experienced handlers and with appropriate anesthesia.
 - d. De-snooding, wattle and comb trimming, notching, toe-clipping and trimming, hole-punching, dubbing, de-beaking and beak trimming, caponization, and forced molting in avian species;
 - e. The use of goggles or other similar artificial devices designed to reduce feather pecking;
 - f. Mulesing and tail docking of sheep shorter than the distal end of the caudal fold in sheep;
 - g. Face branding for all species.
3. The producer of an organic operation must manage manure, including poultry manure, in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, heavy metals, or pathogenic

organisms. The producer must also optimize recycling of nutrients and must manage outdoor access in a manner that does not put soil or water quality at risk.

Species-specific management practice standards

1. Cattle, goats, sheep and other ruminants

- a. Ruminants must get a minimum 40% DMI from pasture during the grazing season, even during a finishing period.
- b. All ruminants, including dairy cattle, must be organic from the last third of gestation other than the one-time farm transition to organic certification.
- c. Ruminants, including young animals, may be housed individually until weaning, as long as the animals have sufficient room to turn around, lie down, stretch out while lying down, get up, rest, and groom themselves. In addition, the individual housing of young stock must be designed so that animals can see, smell, and hear other animals. Individually housed ruminants must have continual access to an outdoor exercise area attached to their housing.
- d. New construction of tie-stall and stanchion housing is prohibited. Tie stalls and stanchions can be used in the milking parlor for the duration of milk collection.
- e. Young ruminants must be fed colostrum within the first 24 hours of birth.

2. Chickens and other poultry

a. Poultry definitions

- i. Mobile housing: A mobile structure for avian species that is moved regularly during the season to fresh ground.

- ii. Fixed housing: Housing that is fixed in place on the land, without the ability to be moved or rotated regularly.
- b. Outdoor access must include soil connected to subsoil and bedrock. The use of “porches” or other screened in and/or roofed structures attached to a fixed poultry house does not qualify as outdoor access.
- c. Slaughter age
 - i. All poultry must spend a minimum of half of their life with outdoor access before being slaughtered. Cornish game hens require 40% of their life with outdoor access. Outdoor access is defined as soil with a minimum 50% vegetative cover.
 - ii. Exceptions to slaughter prohibitions include situations where humane euthanasia is required.
- d. Poultry housing must allow all birds to move freely and engage in natural behavior, including spreading and flapping their wings without interference, foraging, grooming, bathing, scratching, perching, and other instinctual behaviors.
- e. Indoor spacing requirements:

	Mobile Housing	Fixed Housing (measured in linear floor space)
Chicks	Minimum of 0.5 ft ² per bird through 4 weeks old	Minimum of 0.5 ft ² per bird through 4 weeks old
Pullets	Minimum of 1 ft ² from week 5 to maturity	Minimum of 2 ft ² from week 5 to maturity
Layers + Breeders	Stocking density must not exceed 4lbs/ ft ² (live weight)	Stocking density must not exceed 2lbs/ ft ² (live weight)

Broilers	Minimum of 3.5lbs/ ft ² (live weight)	Minimum of 1.5lbs/ ft ² (live weight)
Poults	Requires a minimum of 0.75 ft ² per bird through 5 weeks of age	Requires a minimum of 0.75 ft ² per bird through 5 weeks of age
Turkeys	Minimum of 3 ft ² per bird, 6 weeks and older	Minimum of 6 ft ² per bird, 6 weeks and older
Other Poultry	Stocking density must not exceed 2.5lbs/ ft ²	Stocking density must not exceed 1.5lbs/ ft ²

f. Minimum outdoor spacing requirements:

	Mobile Housing	Fixed Housing (measured in linear floor space)
Layers and Breeders (Seasonal Total)	108 ft ² per bird over the course of the outdoor season	125 ft ² per bird over the course of the outdoor season
Broilers (Seasonal Total)	75 ft ² per bird over the course of the outdoor season	100 ft ² per bird over the course of the outdoor season
Turkeys (Seasonal Total)	175 ft ² per bird over the course of the outdoor season	220 ft ² per bird over the course of the outdoor season
Pullets	4 ft ² daily minimum per bird	4 ft ² daily minimum per bird
Layers and Breeders	5 ft ² daily minimum per bird	5 ft ² daily minimum per bird

Broilers	3.5lbs/ ft 2 daily minimum per bird	1.5lbs/ ft 2 daily minimum per bird
Turkeys	6 ft 2 daily minimum per bird	6 ft 2 daily minimum per bird
Other Poultry	1.5lbs/ ft 2 daily minimum per bird	1.5lbs/ ft 2 daily minimum per bird

g. Outdoor access requirements:

i. Access to outdoor space and door spacing must be designed to promote and encourage outside access for all birds on a daily basis. Producers must provide access to the outdoors at an early age.

ii. Poultry houses must have sufficient exit areas that are distributed to ensure that all individual birds have ready and easy access to the outdoors. Exit areas must be of sufficient size to encourage birds to use outdoor space and allow for more than two birds to exit at the same time and not prevent birds from exiting due to an instinctual fear of aerial predators.

iii. Shade and areas for birds to hide from aerial predators must be provided in outdoor areas by structures, trees, or other objects. In fixed housing systems these structures must be spaced such that birds can safely and comfortably access the entire outdoor area without ever being far from shelter or food.

iv. Fresh food and water must be provided outdoors whenever the birds are using the outdoor space.

h. Perch requirements:

- i. Perches consist of a rod or branch type structure above the floor of the house that accommodates roosting, allowing birds to utilize vertical space in the house.
 - ii. Six inches of perch space must be provided per bird for layer and breeder chickens. Perch space may include the alighting rail in front of the nest boxes.
- i. The producer of an organic poultry operation may temporarily confine birds. Confinement events must be recorded. Operations may temporarily confine birds under the following circumstances:
- (1) The animals stage of life, including:
 - (a) The first third of a broiler's (*Gallus gallus*) planned lifespan;
 - (b) Until they are fully feathered for pullets (*Gallus gallus*); and
 - (2) Until fully feathered for bird species other than *Gallus gallus*.
 - (3) Inclement weather, including when air temperatures are under 30 degrees F or above 100 degrees F. Confinement due to weather can only happen on the day of the predicted inclement weather;
 - (4) Specific, documented conditions under which the health, safety, or well-being of the animal are jeopardized;
 - (5) Serious risk to soil or water quality;
 - (6) The treatment of illness or injury;
 - (7) Sorting or shipping birds and poultry sales, provided that the birds are maintained under continuous organic management, throughout the extent of their allowed confinement.

(8) For 4-H, National FFA Organization, and other youth projects, provided that temporary confinement for no more than one week prior to a fair or other demonstration, through the event, and up to 24 hours after the birds have arrived home at the conclusion of the event. During temporary confinement, birds must be under continuous organic management, including organic feed, for the duration of confinement; and

(9) Birds cannot be confined due to reseeding the outdoor space.

j. Lighting requirements

i. Shelters and housing must allow natural light to enter during daylight hours such that inspectors can read without assistance while inside the shelters or housing.

ii. Artificial lights cannot be used to extend daylight hours beyond a maximum of 16 hours.

3. Pigs

a. Pigs must be housed in groups except during:

i. Farrowing and suckling periods,

ii. For boars,

iii. Individuals recovering from illness.

b. Piglets must not be kept on flat decks or in piglet cages.

c. Gestation crates and farrowing crates are prohibited. Sows must be able to stand up, turn around, and lay down at all times.

i. Creeps and bumper bars may be used if set a maximum of 18 inches away from a wall.

- d. Slatted flooring is prohibited in all pig housing and shelters.
- e. Bedding and manipulatable materials:
 - i. Deep bedded straw and/or rooting and/or manipulatable materials must be provided for all pigs to allow individuals to forage, nest, and otherwise prevent behavior problems whenever indoors or during temporary confinement events.
 - ii. During the farrowing and suckling period a minimum of 2 inches of bedding material must be provided through seven days of age, after which more is added.
 - iii. The majority of the bedding must be dry.

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ROP Standards for Split Farms

1. Prohibited Practices on Split Farms:
 - a. No concentrated animal feeding operations
 - b. No hydroponic production
 - c. No simultaneous parallel production of both organic and non-organic products AND no simultaneous production of ROP and non-ROP products within the following categories:
 - Vegetables and small fruit (including berries)
 - Microgreens
 - Tree fruit

Tree nuts
Tree sap/syrup
Hay and pasture (buffer strips do not count towards parallel production)
Grain and pulses
Fiber from the same species
Dairy from the same species
Eggs from the same species
Meat and byproducts from the same species

2. Allowed Practices on Split Farms

- a. ROP will allow minor non-commercial production for household use, such as hogs, poultry/eggs, kitchen garden, fish and wool, if practices and materials do not affect the integrity of certified production.
- b. ROP will allow sale of non-ROP certified production up to 20% of total farm revenue, subject to the split-farm prohibitions above. [Total farm revenue and the 20% exemption will be based on sales of the farm's agricultural products only.] Farms grossing above \$300,000 will be allowed a maximum of \$60,000 in gross sales of non certified production. Exemptions are allowed for animals that are raised according to ROP standards but are not slaughtered in a USDA organic facility. Farms that sell more than 20% of gross income as "NOT CERTIFIED ORGANIC" due to meat sales coming from a non-organic slaughterhouse are still eligible for ROP certification for products that otherwise qualify. This exemption for non-organic slaughterhouses sunsets on February 1, 2023.
- c. ROP will allow farms to produce and sell non-certified ornamental bedding plants in excess of the 20% limit, provided:

Plants are managed organically while on farm;
Plants must be clearly identified as non-organic at point of sale;

Only NOP-compliant seed, seed coatings and plugs are used when available; No neonicotinoids are applied to seeds, soil or plants at any time.

3. Transitional Organic

- a. ROP certification of transitional production will not be allowed. Farms with land, crops or livestock undergoing bona fide 3-year transition to certified organic will remain eligible for ROP certification of their NOP production as long as the transitional land is managed according to ROP standards as well. [For purposes of calculating the 20% exemption, sales of transitional products will be counted towards total farm revenue but will not count towards the 20% exemption.]
- b. Land must not be rotated in and out of organic certification. An individual plot of land may only be transitioned once into organic certification without approval of the ROP standards board.

4. Non-certified production subject to point-of-sale disclaimer

When non-NOP certified production is grown, raised or processed under the above exemptions, and offered for sale to the public using the ROP-certified farm name or logo on packaging or placards, packaging and placards must clearly identify the product as “NOT CERTIFIED ORGANIC”. Farms must require compliance with this provision by all resellers.

The NOT CERTIFIED ORGANIC disclaimer must appear beside the farm name or brand on placards and on the primary display panel of packaging in such a manner that a potential purchaser will take notice of it. Fonts, font size, font color, sticker size, sticker color and other methods must be employed to achieve sufficient effect.

5. Definition of a farm

For the purposes of ROP certification a farm should be considered, in its entirety, to include ownership or management of all enterprises on all owned or leased properties. Distinct

farm operations and/or enterprises that share a substantial portion of labor, land base, equipment and/or management will be considered to be under common ownership or management. Any farm involved in Hydroponic or CAFO production shall be barred from ROP certification.

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ROP Standards for Labor Protections

These standards are intended to ensure that ROP certified farms are providing these labor protections provided by law. We support efforts to improve protections afforded to workers and farmers under the law. These standards are explicitly **not** intended to serve as fair labor standards.

1. Documents

- b) All ROP farmers will be provided with a template for a work contract along with a 1 page workers rights document. As part of ROP certification farms must agree to provide these documents to their employees on an annual basis

2. Hiring

- a) Hiring ads and practices do not discriminate against any state or federally protected groups.
- b) Employers must not receive any payment from employees or prospective employees for any cost associated with obtaining a job.
- c) Employers agree to disclose to ROP whether they use contract labor, and the name of the contract labor organization they use.

3. Pay

- a) All employers must have a system that can reasonably provide employees with pay stubs for every pay period detailing hours, pay,

taxes and employer deductions. Farms in their first 5 years of operation may provide this information in an alternative written format provided that employees can still clearly determine their pay, hours and deductions within a given pay period.

4. Housing (**If** an employer provides housing to their employees) must
 - a) Be a safe physical environment
 - b) Have a natural source of light and a safe source of lighting
 - c) Have a clean, private and cleanable space with a space for personal cleaning and access to a sanitary bathroom or latrine.
 - d) Have access to potable water
 - e) All employee housing must be described accurately and in detail previous to employment. This must include a special emphasis on non-traditional housing

5. Workplace
 - a) All documents provided to farm workers (such as pay stubs, work contracts ect) must be provided in the native language of the farm worker
 - b) Employees must have complete freedom of movement and association.
 - c) Employees must have access to medical care, access to transportation, communications (phone/computer) and shopping for basic needs.
 - d) Employers must not, under any circumstances, hold on to employee passports, immigration or work documents.
 - e) Employees are provided, at no cost
 - All tools, supplies and equipment required to perform their assigned duties.
 - Appropriate safety equipment when exposed to levels of high noise, dust or dangerous chemicals, or are working with dangerous equipment.
 - Appropriate safety training by their employer on all potentially hazardous equipment and materials.

Appendix

NOP Guidance 5021 Compost and Vermicompost in Organic Crop Production

1. Purpose

This guidance provides clarification on allowed practices for composition, production, and use of compost and vermicompost in organic crop production.

2. Scope

This guidance applies to National Organic Program (NOP) certifying agents, all certified and exempt organic producers, and input suppliers.

3. Background

The NOP regulation 7 CFR 205.203(c), the soil fertility and crop nutrient management practice standard, sets forth the requirements for management and application of plant and animal materials. This section of the NOP regulations provides specific requirements for the use of compost and raw manure, but does not describe the full range of methods that may be used for compost production.

A key provision of the NOP regulations regarding addition of organic matter is found at § 205.203, which states:

“The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.”

Section 205.203 further states that animal and plant materials include three types of materials: raw manure, composted plant and animal materials, and uncomposted plant materials. Raw manure is restricted in use, and compost containing animal materials must be produced under certain conditions. The designated types of systems do not include common methods of composting

such as in piles (rather than windrows) or include any reference to vermicompost.

The National Organic Standards Board (NOSB) convened two task forces that delivered comprehensive reports to the NOSB on compost (2002) and compost tea (2004). The NOSB then made a final recommendation on compost, compost tea, processed manure, and vermicompost in November 2006.

The NOP concurs with the NOSB that the examples provided in § 205.203(c)(1-3) is not a finite list of acceptable plant and animal materials for use in organic production. Site-specific variation in feedstock materials, management practices, and production requirements dictate that organic producers exercise flexibility in managing plant and animal materials on their operations.

In July 2007, the NOP issued *NOP 5006 – Processed Animal Manures*. NOP 5006 clarifies the criteria for production of processed manure products that may be used without restriction in organic production. While the use of processed animal manures was clarified in NOP 5006, the use of vermicompost was not addressed in that guidance. Vermicompost is an alternative method for meeting the NOP compost requirements.

Vermicomposts are organic matter of plant and/or animal origin, consisting mainly of finely-divided earthworm castings, produced non-thermophilically with bio-oxidation and stabilization of the organic material, due to interactions between aerobic microorganisms and earthworms, as the material passes through the earthworm gut.

Feed stocks for vermicompost materials include organic matter of plant or animal origin, preferably thoroughly macerated and mixed before processing.

Pathogenic organisms are eliminated in 7–60 days, depending on the technology used. Vermicomposting systems depend upon regular additions of thin layers of organic matter at 1–3 day intervals to maintain aerobic conditions and avoid temperature increases above 35°C (95°F) which will kill the earthworms. Methods of vermicomposting include outdoor windrows (usually managed for 6–12 months), angled wedge systems (usually managed for 2–4 months), indoor container systems (usually managed for 2–4 months)

and continuous flow reactors (usually managed for 30–60 days). For outdoor windrows, one indicator that the process is complete is when the worms move out of the compost, which would typically take 6 months in warm conditions, or up to 12 months in colder climates.

Earthworms fragment the organic wastes into finely-divided materials with a low C:N ratio and high microbial activity. Nitrogen is mostly found in the nitrate form, and potassium and phosphorus are in soluble forms. For most organic wastes, no traces of the raw materials are visible. Processing is maintained at 70–90% moisture content with temperatures maintained in the range of 18-30°C (65-86°F) for good productivity.

4. Policy

4.1 General

Compost and vermicompost production practices should be described in the operation's organic system plan (OSP). Certifying agents may allow the use of compost if they review the OSP and records and are assured that all requirements are met. Compost production records should include the type and source of all feedstock materials. When animal materials are used in compost production, the certified operation should maintain temperature monitoring logs, and document the practices used to achieve uniform elevated temperatures. Vermicompost production records should include the type and source of all feedstock materials. When animal materials are used to produce vermicompost, the certified operation should maintain a log of duration of vermicomposting with a description of the practices used to achieve aerobic conditions and maintain adequate moisture. Certifiers reviewing compost inputs produced by commercial operators should similarly review the production methods and source materials.

Certified operations can also demonstrate compliance with the compost requirements by measuring temperature, time, moisture content, chemical composition, and biological activity. These measurements may include testing feedstock materials and compost for one or more characteristic including initial and final carbon to nitrogen ratios, stability (using ammonia/nitrate ratio, O₂ demand, CO₂ respiration rate, or other standard tests), pathogenic organisms, or contaminants.

4.2 Compost

Compost containing plant and animal materials is allowed in accordance with \square 205.203(c)(2). Other examples of acceptable composting methods include:

1. Compost that is made from allowed feedstock materials (either nonsynthetic substances not prohibited at \square 205.602, or synthetics approved for use as plant or soil amendments), and
2. The compost pile is mixed or managed to ensure that all of the feedstock heats to the minimum of 131°F (55°C) for a minimum of three days. The monitoring of the above parameters must be documented in the OSP in accordance with \square 205.203(c) and verified during the site visit.

4.3 Vermicompost

Vermicomposting is an acceptable method of composting when:

1. It is made from allowed feedstock materials (either nonsynthetic substances not prohibited at \square 205.602, or synthetics approved for use as plant or soil amendments);
2. Aerobic conditions are maintained by regular additions of layers of organic matter, turning, or employing forced air pipes such that moisture is maintained at 70–90%; and
3. The duration of vermicomposting is sufficient to produce a finished product that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.

4.4 Permitted Uses

Composts containing animal materials that do not meet the requirements at 4.1 and vermicomposts containing animal materials that do not meet the requirements at 4.2 of this policy may be permitted subject to restrictions of \square 205.203(c)(1), similar to raw animal manure, provided all feedstocks are allowed materials (either nonsynthetic substances not prohibited at \square 205.602, or synthetics approved for use as plant or soil amendments).

Compost and vermicompost made without animal materials as feedstock are not restricted in use, in accordance with the provision for uncomposted plant materials at § 205.203(c)(3), provided all feedstocks are allowed materials (either nonsynthetic substances not prohibited at § 205.602, or synthetics approved for use as plant or soil amendments).

5. References

NOP Regulations (as amended to date)

7 CFR § 205.203 Soil fertility and crop nutrient management practice standard.

(c) The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances. Animal and plant materials include:

- (1) Raw animal manure, which must be composted unless it is...
- (2) Composted plant and animal materials produced through a process that...
- (3) Uncomposted plant materials.

7 CFR § 205.602 Nonsynthetic substances prohibited for use in organic crop production.

NOSB Recommendations

November 2006, Final NOSB Recommendation on Guidance: Use of Compost, Vermicompost, Processed Manure, and Compost Teas.

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

NOP 5006: Processed Animal Manures. July 22, 2011.
Approved on July 22, 2011

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