Organic Certification

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The Origins of “Organic” Agriculture Certification

For thousands of years, food has been produced utilizing naturally occurring minerals and organic nutrients. Historic discoveries from ancient Rome, to Egypt, to Mexico illustrate that the process of growing food crops heavily relied upon the use of manure and composted plant vegetation. Early American farms grew a wide variety of products due to the fact that it was necessary to grow a variety of foods year-round to utilize composted animal manures and plant materials for crop nutrients.

Until the beginning of the 20th century, farmers did not use commercially produced synthetic fertilizers and chemicals to control insects, diseases, and weeds. In 1928, Sodium Nitrate was the first synthetic nitrogen commercially produced in the United States. Chemically synthesized pesticides such as DDT and 2, 4D were not widely used until after World War II. Prior to the early part of the 20th century, the majority of food consumed was either grown by individual families or purchased from local sources.

Numerous factors led to the commercialization of the American food system. Such factors include the invention of mass produced farm machinery, the interstate highway system, industrial manufacturing of processed foods, efficient cold storage, as well as the commercial production of synthetic fertilizers and pesticides. During the latter part of the 20th century, America’s commercial food system largely relied upon large mono-crop vegetable and grain farms; these systems utilize synthetic fertilizers for crop nutrients instead of manure and compost. Some areas of the U.S. produced vegetables more efficiently, while others were more efficient for livestock production, this occurrence eliminated the opportunity to use manure for crop production. Mono-crop production also has led to greater insect, disease and weed pressures. To combat the high levels of pest infestation on large-scale operations, farmers depend on the use of synthetic pesticides.

Due to the recent population increase in the United States and around the world, many scholars would argue that it is not possible to continue to produce such an abundant food supply without the use of synthetic fertilizers and chemical pesticides. However, consumers have grown increasingly concerned with regard to ensuring long-term human health and protecting the environment. A sizeable portion of these consumers now prefer food that has been produced without using synthetic fertilizers and chemical pesticides.
Why Organic Certification?

Although most farmers in the U.S. use synthetic fertilizers and chemical pesticides, food safety and contamination concerns as well as increased interest in local food connections have lead to increased interest in organic food production. During the latter part of the 20th century, niche markets emerged and so did “organic” or pesticide-free products. These niche markets were concentrated in areas such as college towns or other locations where consumers demonstrated a desire for food that was produced “organically”. The majority of these markets were small tailgate-style markets that allowed farmers to sell organically produced food at higher prices than retail, which in turn, helped sustain the small operations. As the relationship between producers and consumers developed, the level of trust for organic products also was established.

With increased demand, organic production increased, generating significant price margins between organic and conventional products. These increases sparked further interest in the production of organic foods. As the organic marketplace expanded, retail outlets also sought organic products. Without the direct sales relationship between farmer and consumer, it became difficult for consumers to trust that products were authentically produced using organic methods. Although regional organic organizations developed organic standards, there was no available method to guarantee that producers adhered to organic standards.

During the early 1970’s, existing and new organizations developed third-party certification programs. Third-party certification was the review of a producer’s organic methods by an independent company. If the producer met the standards set forth by the independent company, the producer was then granted permission to use the third-party organic certification label. Although, this certification process conveyed to the consumer that the food was produced according to organic standards, many problems arose due to the lack of unity between certifying parties. The credibility of the organic movement also was being undermined by well-publicized incidents of fraud.

To establish a more uniform standard for organic production and certifications, organic organizations began pursuing federal legislation. With the 1990 Farm Bill, the Organic Foods Production Act established uniform national standards for the production and handling of foods that were to be labeled as organic. The final national organic standards rule was published in the Federal Register on December 21, 2000. The law was activated on April 21, 2001; its required implementation date was October 21, 2002.

Certification Agencies

The National Organic Program (NOP) was established as a marketing program housed within the USDA Agricultural Marketing Service to develop, implement, and administer national production, handling, and labeling standards. The NOP is responsible for developing the national organic standards and establishing guidelines for accredited
certifying agents. The NOP, through an application process, accredits private businesses, organizations, and state agencies to certify producers and handlers of agricultural products according to the NOP regulations. Certifying agencies act on behalf of the NOP to collect information, perform site inspections, and evaluate producer’s organic system plan to determine if they are in compliance with NOP regulations. The NOP also recognizes foreign certifying agencies that have been accredited by a foreign government authority provided that (1) the foreign government’s standards meet the requirements of the NOP or (2) an agreement has been developed between the U.S. and the foreign government. A complete list of both domestic and foreign certifying agents can be found on the NOP website listed in the resource chapter.

Certifying agencies must:
- Comply with federal discrimination laws.
- Maintain the confidentiality of client information with respect to the business related data that is collected during the certification process.
- Make certain information available to the public; such as the certification certificates that have been issued, a list of producers and handlers whose operations have been certified (including operation name and type, products produced and the effective date of the certification), and laboratory analysis results for residues of pesticides and other prohibited substances.
- Publicly reveal information regarding their certification process and fees.

Certifying agencies may:
- Inform operators whether products or procedures are permitted for use, but cannot advise producers regarding the use or location of products.
- Distribute information that is publicly available such as Extension publications.
- Provide producers with a list of private consultants provided that they do not recommend specific consultants.
- Sponsor voluntary education programs that are available to the general public.

Certifying agents are prohibited from:
- Giving advice or providing consultancy services to certification applicants or certified operations that will aid the identification of common barriers to certification.
- Recommending specific consultants.
- Advise producers regarding the use or location of products.

Who Must Be Certified?

Agriculture producers who plan to sell, label, or represent products as “organic” must meet the requirements of the NOP and be certified. However, operations with an annual gross income of $5,000 or less from organic sales are exempt from this regulation. The elimination of certification fees, inspection fees, and an organic system plan removes the financial barrier for many small producers. This exemption was primarily designed
for producers who sell directly to consumers. It must be noted that exempt producers must still comply with all NOP regulations regarding the production of organic products and proper labeling as well as submit a yearly application.

The Maryland Department of Agriculture (MDA) has created a registered exempt program. Participants in this program are required to complete an application and pay a nominal fee to be listed in the Maryland Organic Directory. The Directory and application are located on MDA’s website which is provided in the resource chapter. The application also will help exempt producers understand the NOP’s requirements for production and labeling.

Selecting a Certifier

Although all certifiers must be accredited by the NOP, a producer should research various certifiers to identify the best fit for their operations. The NOP has a searchable list of all current certifiers on the NOP website which is listed in the resource chapter. The Rodale Institute has a guide to organic certifiers which allows producers to compare two certifiers based on many characteristics. The Rodale Institute is listed in the resource chapter.

Criteria to examine in selecting a certifier may include:

- Certification fees and inspection fees.
  Certification fees can vary greatly between certifiers. Certifiers generally charge an application/renewal fee. The fee can be a flat fee or can be based on the types of operations and volumes of production. Some certifiers also charge for inspections.

- Size of the organization and specialization within the types of organic products they certify.
  Certifiers may be very specialized in the types of organic products that they certify. This specialization may be to the producer’s advantage as they may have more knowledgeable personnel. Very specialized certifiers may not be advantageous for operations that would like to expand in the future into different types of enterprises.

- Other farms in the region that also use the certifier.
  Discuss with other organic farms in your area as to how satisfied they are with their certifier. It may be advantageous to both the producer and the certifier to have multiple farms in a given area for such things as on farm inspections.

- The business stability of the organic certifier.
  Compare how long certifiers have been in business and the number of producers working with the certifier.

- The recognition of the certifier in local growers’ markets (logos, etc.)
  Determine if the certifier’s logo will be beneficial in your markets. Producers who market in local markets may benefit from state department of agriculture certification logos while producers who market in national
and international markets may benefit from logo of which are recognized more national or internationally.

- Membership in organizations such as the Organic Materials Review Institute (OMRI). Certifiers are not required to be a member the OMRI, which evaluates commercial products for organic use. Certifiers who belong to OMRI accept all the products on the OMRI list. This may make it easier for producers to understand what products will be accepted by the certifier.

- Willingness to answer questions and provide information about the certification process. While certifiers cannot make recommendations concerning products or processes used in the producers operation, having knowledgeable staff that can answer questions related to organic production of specific crops or animals can be a tremendous benefit. Also consider how the location of the certifier’s operation will affect the knowledge of the certifier’s staff.

The Certification Process

**Application.** Producers must first select a certifying agent, and then submit an application to that certifying agent along with the application fee. The application requires detailed information regarding the applicant’s business, such as its organic production and handling plans, and other information that will determine whether the applicant operates within the provisions of the NOP. This application is the producers Operation Plan. Upon receipt of the application, the certifier will review it for completeness and adherence to organic production and handling procedures. When the application is found to be in compliance with organic production and handling procedures, the certifier will schedule an on-site visit to the operation during the growing season.

**Site inspection.** The certifier must conduct the on-site inspection within a reasonable time after the application is approved. However, the on-site visit can be delayed for up to six months due to the fact that it is only possible for the certifier to conduct an inspection when the compliance of the land, facilities, and activities can be observed. On-site visits should be scheduled when the operator is available and present on the property. The site inspection will likely take several hours and the owner/operator is expected to accompany the site inspector. During the inspection, all facets for the operation will be observed. Certifiers may collect samples of soil, water, waste, and plant tissue, as well as plant, animal, and processed products for testing to verify that prohibited substances are not being used by the operation.

**Exit interview.** An exit interview is used to discuss and clarify the inspection findings with the operator. Inspectors should address any concerns and, if necessary, request additional information. Inspectors are prohibited from making recommendations that
either advise or instruct the methods operators can use to make improvements to their operations.

**Certifier obligations.** Certifiers are required to provide operations with copies of inspection reports, which also includes copies of test results for samples taken by the inspector. Inspectors should provide receipts for all sample materials taken; however, there is no charge to the inspector for the samples taken. Applicants may withdraw their applications at any time; however, information regarding previous certification applications must be noted by the producer on any future application.

**Certification of Operation.** A Certification of Operation can be issued after: (1) it has been determined that the applicant’s Operations Plan is in compliance with the NOP; and (2) the applicant can successfully execute this plan. After the certificate has been issued, it will remain in effect until it is surrendered by the organic operation or is suspended or revoked by the certifying organization or the NOP administrator.

**Certification denial.** If the organic certification is denied, the certifying agent must issue a written notification of non-compliance to the applicant. This notification should include a:

1. Description of each issue of noncompliance.
2. Description of the factors contributing to the noncompliance.
3. Specific date that each issue of non-compliance must be corrected.

The grower has two options for addressing certification denial:

1. Correct the issues of non-compliance and submit a description of correction along with supporting documentation of the modifications, OR
2. Submit a rebuttal of the noncompliance.

The certifying agency reviews the corrections or rebuttal information and may schedule another on-site visit. If the noncompliance cannot be rectified, a Notification of Denial of Certification must be issued by the certifier.

An applicant may submit a new application to a different certifier at any time. However, if the applicant previously received a Notification of Denial of Certification, the new application also must include results of previous applications and the notification of non-compliance, as well as other supporting documentation.

**Continued Certification**

Each year, operations must update their organic certification with the certifier; this includes submitting updated information in addition to paying the annual certification fees. An annually modified organic system plan is required; it describes any additions, changes, or deletions to the former plan. After the newly updated annual plan has been received, the certifier will schedule an on-site visit. The certification will remain intact provided that the certifier determines that the operation is in compliance with the NOP.
However, if the certifier determines that the operation is not in compliance, the certifier will issue a written notice of non-compliance. Similar to the initial application process, operations are granted a set time to correct or rebut each issue of non-compliance. If the non-compliance concerns cannot be corrected, then the operations certification can be suspended. In addition to annual on-site visits, the certifier can conduct additional on-site visits as needed to ensure NOP compliance.

Cost Share Program

The USDA Agricultural Marketing Service administers funds to reduce the cost of organic certifications. These funds can be used for initial certification or a continuation of certification. Through the 2001 Federal Crop Insurance Act, the Agricultural Management Assistance (AMA) program, and the National Organic Certification Cost Share program, producers can be reimbursed up to 75% of the cost of organic certification (not to exceed $750). Producers must receive the initial certification or the continuation of certification from the certifier prior to applying for cost share. The USDA funds are administered through the state department of agriculture; therefore, contact the state’s department of agriculture for more information.

Organic Operations Plan

Organic producers are required to submit yearly plans to their certifiers. For newly certified producers, the plan is contained in the certification application. The Organic System Plan provides a detailed description of production practices that the farm will execute to remain in compliance with the NOP. To provide clarification of the requirements, each section of the Organic System Plan is discussed in relation to NOP regulations. The Organic System Plan may include information from producers in other states or federal requirements such as egg laws, nutrient management laws, or other statutes. No producer is exempt from maintaining the proper documents and licenses for their farm business.

The following information was taken from the Maryland Department of Agriculture – Organic Crop and Pasture Certification Application. Applicable references to the NOP Standards can be found on the USDA NOP website.

Farm Plan Information – NOP Rule 205.201(a) and 205.202 (a)&(b)

*Farm Map.* A producer must include a detailed map of the farm operation, including a north arrow, map scale, legend, and elevation. If the farm is not on contiguous property, then multiple maps should be submitted. The following data must be identified and labeled on the map:

- Production area boundaries – site number and size
  - Production fields
  - Pastures
  - Greenhouse/high tunnels
• Farm roads, public roads, woodlands, wetlands, and any other distinct land features.
• Buildings, irrigation sources, drinking water wells, composting areas, manure storage, fuel tanks and septic systems.
• Note any fields that are not used for organic production and the buffer area with the width and direction of slope.
• Land use of all adjacent neighbors properties showing buffer areas with width and direction of slope.

**Field History.** The NOP requires that land is identifiable as Organic, Transition, or Conventional. Land utilized for organic production must not contain any prohibited substances, nor should prohibitive substances have been applied during the past three years. Land in transition must be identified on the Organic System Plan for three years and cannot have any prohibited substances applied. Land also may be certified provided that the land has not had any prohibited substances applied to it for three years and the person responsible for management is willing to sign a Land Use Affidavit. The field history section also requires that producers identify the crop that will be grown in each identified field, as well as the number of acres of each crop and the projected yields.

**Seeds and Seed Treatments – NOP Rule 205.204**

The NOP regulations require that producers use organically grown seeds and seedlings unless the appropriate varieties are unavailable. If organically produced seeds and seedlings are not available, producers must record each attempt to source the organic seeds. Generally, three attempts to source seeds are acceptable. Although organic seed has become increasingly available, producers are not required to purchase organic seed if it is a variety not suited for the area. Prohibitive expense and inability to locate specific varieties in a timely manner are not considered acceptable exceptions. Synthetic seed treatments are prohibited unless included on the National List Materials. Genetically engineered/modified seeds and inoculants also are prohibited. An Organic System Plan must include a list of the seeds that will be used for organic growing. Growers must maintain proper documentation of their seed sources along with the labels and attempts to source organic seeds.

**Source of Seedlings and Planting Stock – NOP Rule 205.204**

When utilizing annual planted seedlings, the seedlings must be produced according to organic standards unless they are unavailable. Perennial planting stock that originated from non-organic sources must be in the ground and managed organically at least one year prior to being sold; this also includes products derived from those plants. A list of seedlings used in the operation, the suppliers, and the certifier of the supplier must be included in the plan. When self producing organic seedlings, the following information will be required in the organic plan:
• Type and size of greenhouse – identify any parts of the greenhouse that are made with treated wood.
• Identify whether the plants are grown in plants or directly in the ground.
• List all of the soil mix ingredients, fertility products, foliar sprays, and pest and disease products used or planned for use. Have labels available for inspectors.
• Specify the equipment used for the watering system.
• Identify the plan designed to prevent seedling diseases and/or insect problems.
• Identify varieties of crops grown.
• Indicate whether organic and non-organic plants are grown in the greenhouse and identify methods used to separate, identify, and label organic and non-organic plants.
• When growing both organic and non-organic plants, it is necessary to identify the soil mix ingredients, fertility products, foliar sprays, and pest and disease products used or planned for use to grow non-organic plants.
• When growing organic and non-organic plants, identify the methods used to separate organic and non-organic soil mixes, store non-organic inputs, prevent drift of organically prohibited materials, and how containers and equipment were cleaned.

Soil and Crop Fertility Management – NOP Rule 205.203 and 205.205

Producers should understand and identify the soil types on the farm; this can be accomplished by referring to the USDA soil surveys. Producers also should recognize the capabilities of the soils in addition to the limitations of crop production. Producers are required to identify soil nutrient deficiencies and indicate the method used to determine whether plant nutrition is satisfactory. The NOP does not require a specific soil testing schedule; however, producers must comply with additional state requirements, such as soil testing and nutrient management planning (in addition to the Organic System Plan).

Producers must indicate the major components of the crop fertility plan, which may include:
- Crop rotation
- Green manure plowdown/cover crops
- Interplanting
- Incorporation of crop residues
- Subsoiling
- Summer fallow
- Compost
- On-farm manure
- Off-farm manure
- Soil amendments
- Side dressing
- Foliar fertilizers
- Biodynamic preparations
- Soil inoculants

All fertility products used or intended for use must be identified in the plan including: brand name, organic approved status, number of applications and reason for use.

**Compost.** Producers who produce their own compost must follow NOP rule 205.203(c)(2). It is necessary to evaluate the carbon and nitrogen (C:N) ratio of the products being composted. Producers must identify the method used for composting and understand the critical steps for making compost utilizing that specific method. The compost mix must have a C:N ratio between 25:1 and 40:1. In addition, the compost must reach a temperature of 131°F - 170°F for three days for in-vessel or static aerated pile systems or 15 days for windrow composting systems. The material also must be turned a minimum of five times. Producers must maintain records for the compost including: feedstocks used, temperatures, times turned, etc.

**Manure.** Raw livestock manure from any source can be used in an organic operation provided that it is utilized according to NOP Rule 205.203(c)(2). Raw manure may be applied to any crop not used for human consumption such as livestock feeds, cover crops, or crops grown in buffer areas. If raw manure is applied to land that is used to grow food for human consumption it should:
- Be applied 120 days prior to harvest for crops with edible parts that have direct contact to the manure
- Be applied 90 days prior to harvest for all other crops

A producer must identify the source and type of manure applied to crops -- especially if raw manure has been applied. When off-farm manure is used, the producers should identify the source of the manure as well as the ingredients. Although not required by the Organic System Plan, it is recommended that producers remain aware of state laws that may limit the application of manure based upon nutrient management plans and environmental conditions. Producers may be required to test manure for basic plant nutrients prior to application. Although these rules are not part of the Organic System Plan, they are advisable agriculture practices and should be noted on the Organic System Plan.

**Natural Resources – NOP Rule 205.200 and 205.203(a)**

NOP regulations require producers to use conservation practices that maintain or improve the natural resources of the operation. Producers must indicate practices being implemented, which may include:
- Terraces
- Contour Farming
- Strip Cropping
- Winter Cover Crops
- Undersowing/Interplanting
- Conservation Tillage
- Permanent Waterways
- Windbreaks
- Firebreaks
- Tree Lines
- Retention Ponds
- Riparian Management
- Maintain Wildlife Habitat

Producers should explain the soil erosion problems that have occurred on the farm, as well as describe how these problems will be or have been addressed. The method used to determine the effectiveness of the soil conservation program also should be presented.

Water use and management is important to all types of vegetable operations. Organic producers should understand the uses, sources, and potential problems that water may have on their farm. A producer must indicate how water is utilized on the farm, including: irrigation, livestock, foliar sprays, washing crops, and greenhouse. Sources, on-site wells, river/creeks/ponds, springs, municipal/county systems, or irrigation district, should be identified. Specify what measures have been taken to ensure water quality. Such measures may consist of fencing livestock from waterways, scheduled use of water to conserve its use, tensiometer/monitoring, laser leveling/land forming (raised beds), drip irrigation, and micro-spray. As part of the Organic Plan, water samples should be collected and analyzed. Water quality monitoring methods should be noted.

If a producer uses water for irrigation, the producer must disclose the type of irrigation system used. All products (e.g. fertilizers, etc.) that are applied through the irrigation system must be listed in the plan; this also includes any products used to clean the irrigation system. When irrigation is used for the organic and non-organic production, the grower must document system flushes between operations.

**Crop Management – NOP Rule 205.205 & 205.206**

The Organic System Plan should describe how the producer plans to rotate crops, prevent weeds, and prevent insect and disease damage. Producers are required to make reasonable attempts to manage crops and, if possible, avoid using approved chemicals. Crop production management practices will be discussed in later chapters in this guide. The Organic System Plan requires that producers describe crop rotation plans for individual fields. Effective rotations include cover crops, green manure crops, and cash crops. Crop rotations can be governed by soil conservation plans, such plans have requirements for the rotation that will facilitate soil conservation.

**Weed Management.** The Organic System Plan requires that producers implement an effective weed control program that identifies the specific types of weeds that may present problems for the crops that will be grown. Prior knowledge and experience of
the farm’s crops are the producer’s best indicator for the weeds that need to be controlled. In the absence of such experience, a producer may ask the prior land owners or neighboring farmers to specify the most problematic weeds. After the producer is familiar with the weeds that will be a problem on the farm, the next step is to indicate the control methods used on the farm which may include:

- Crop rotation
- Field Preparation
- Prevention of Weed Seed Set
- Delayed Seeding
- Monitoring Soil Temperature
- Soil Sterilization
- Use of fast emerging varieties
- Mechanical cultivation
- Use of hand tools
- Hand weeding
- Mowing
- Livestock grazing
- Flame weeding
- Steam weeding
- Electrical
- Smother crops
- Black fallow
- Non-synthetic mulch
- Synthetic Mulch
- Corn gluten
- Soap based herbicides

Production practices for weed control are discussed in Chapter 9 - Weed Management. Records of weed control methods should be maintained for each production area. The use of allowable herbicides may require producers to obtain a pesticide private applicator license, in addition to maintaining records as required by state laws. Plastic or synthetic mulches must be removed from the field after use. Seed used for cover crops should be from organic sources; whereas, corn gluten must be derived from corn that has not been genetically modified. It is advisable for producers to develop a plan to effectively monitor weed management. The plan should include processes, such as the observation of weed types, comparisons of crop yields, and records of observations and weed counts.

**Pest Management Plan.** Producers are required to anticipate and list the insects and diseases that may pose problems on the farm. After the producer has identified the potentially troublesome insects and diseases, the producer must indicate the specific strategies that will be utilized to control the damage. Such strategies include:

- Crop rotation
- Selection for plant species and varieties
- Development of habitat for natural enemies
- Timing of planting
- Companion plantings
- Frog ponds
- Bat houses
- Bird houses
- Hand picking
- Monitoring
- Trap crops
- Physical barriers
- Physical removal
- Traps
- Lures
- IPM
- Insect Repellents
- Animal Repellents
- Release of predators/parasites of pest species
- Use of approved products
- Use of restricted products
- Limited use of prohibited products
- Field sanitation
- Vector management
- Soil balancing
- Solarization
- Compost tea use

Producers must list all products utilized for insect and disease prevention and control. Products used during the preceding three years must be included on the field history sheet. It is advisable for producers to develop a method to monitor the efficiency of the insect and disease control that have been implemented. Monitoring techniques may include observation of crop health, comparison of crop yields, crop quality testing, monitoring records kept, microbiological testing, and observation of soil.

**Maintenance of Organic Integrity – NOP Rule 205.201(a)(5) and 205.202(c)**

**Adjoining Land.** It is important to maintain the integrity of organically produced crops by preventing the drift or transfer of spray materials, pollen, or other prohibited materials from non-organic crops. The NOP requires that buffers are sufficient in size to prevent the unintended contact by prohibited substances applied to adjacent land. The width of the buffer depends on the prohibited substances used on adjacent land and is determined by the certifier. Typically, buffers must be 25-35 feet wide and may consist of a dense shrub line. Buffers can change each year, such changes are usually determined by the substances that have been applied to the adjacent land. Buffers can be planted within crops and harvested, provided that the crops are kept separate.
Buffer areas must be illustrated on the field maps. In addition, proper records of the buffer crops must be maintained; the records also should include the method used to dispose of the buffer crops. Other safeguards should be taken to ensure that prohibited substances are not applied to or mistakenly drift onto organically managed fields. Organic fields that border a highway or electric and/or gas right-a-way will acquire the producer to contact the associated organization and ensure that the adjacent areas have been designated as no-spray areas.

**Equipment.** All equipment used to harvest organic crops must be cleaned and flushed prior to each use. Equipment owned, rented, or custom hired must be included in the Organic System Plan. Methods used for cleaning the equipment should be described.

**Harvest – NOP Rule 205.272(b)(1)&(2)**

The NOP stipulates that all containers, bins, and packaging materials must not contain any fungicides, preservatives or fumigants. All reusable containers must be thoroughly cleaned and pose no risk of contamination prior to use. If a custom harvester has been utilized, the name and address of the custom harvester must be listed on the plan. The steps taken to protect organic crops from cross contamination during harvest must be described (e.g. marked containers/bins/wagons, etc.).

**Post-Harvest Handling - NOP Rule 205.201(a)(5)**

The post-harvest handling section of the plan generally includes basic processes such as washing, grading, and packaging. If the producer changes a product’s form, it then becomes necessary to complete an Organic Handling Plan. All post-harvest handling procedures must be explained in the Organic System Plan; including the processing area, equipment used for processing, packaging materials, and forms of finished product packaging.

**Crop Storage.** Organic System Plans must indicate how crops will be stored. A description of the storage area should include the techniques used to keep organic products separate from the storage of non-organic products. The crop storage section should incorporate:

- The method used to clean storage areas prior to storage.
- Methods used to control insects and rodents.
- A list of any stored crop inputs.

**Transportation.** The Organic System Plan includes information regarding how the producer delivered the crops to the buyer. When the buyer picks up the product, the buyer becomes responsible for ensuring that the product is not contaminated. However, if the producer delivers the product to the buyer, the producer must disclose how the product was successfully delivered while maintaining the organic integrity.
Record Keeping – NOP Rule 205.103

The NOP Rule requires that records must disclose all activities and transactions of the operation. These records must be maintained for five years and demonstrate compliance with the NOP Rule. Organic products must be extensively tracked, including the field/location where the organic products were produced and harvested. It is advisable for producers to develop a reliable system of traceability that best suits their products and/or type of marketing. All records should remain accessible to the inspector. Records must be maintained for each area addressed in the Organic System Plan. Most systems involve:

1. Assigning a lot number to the product when it is harvested.
2. Printing that lot number on the package label for the products.
3. Recording the direct sales of individual products.

Allowable Materials for Organic Production

The National Organic Program stipulates that the Secretary of Agriculture must establish a National List of Allowed and Prohibited Substances; this list defines the substances that may be used for organic growing. The National List can be found on the NOP website and is listed in the resource chapter. The National List is divided into synthetic substances and non-synthetics (natural) substances. Synthetic substances allowed for organic production according to the NOP Rule 205.601, are specifically included on the National List. Any synthetic material that is not included on the National List cannot be used for organic production. It should be noted that some non-synthetic or “naturally occurring” substances are not allowed for use in organic production.

Non-synthetic or naturally occurring substances allowed for organic production according to the NOP Rule 205.602 are also specifically included on the National List. Any non-synthetic or naturally occurring substance that is not included on the National List cannot be used for organic production. Proposed and Final Amendments to the National List can be found on the NOP website.

The Organic Foods Production Act also established the National Organic Standards Board (NOSB). The NOSB is a 15 member board that is appointed by the Secretary of Agriculture. The NOSB assists the Secretary to develop standards for substances that will be used in organic growing. The NOSB may be petitioned to evaluate additional substances that have the potential to be included or removed from the National List. After the evaluation has been completed, the NOSB will submit its recommendations to the Secretary of Agriculture, who ultimately will determine whether the substance will be included or removed from the National List. A petition form is available on the USDA NOP website.
Determining Which Products May be Used

A producer’s Organic Operations Plan must list the products that will be used for insect, disease, and rodent control; soil amendments must also be included. Certifiers will verify whether the listed products are allowable according to the NOP Standards. If a substance is not allowed, the producer must revise the Organic Operations Plan before it can be approved. Certifiers cannot recommend specific substances that may be included in the plan; however, certifiers can evaluate the planned uses of substances.

Producers should not use any substances that were not included in the original Organic Operation Plan that was approved. It is imperative that producers first contact the certifier to obtain written verification that additional or new products are indeed allowable. Producers should not assume that materials that have been labeled as “organic” are automatically allowed. Materials allowed by one certifier may not be allowed by another certifier. Also, it should be noted that some certifiers are even more stringent than the NOP Standards with regards to approving substances.

Organic Materials Review Institute (OMRI)

In addition to the USDA Organic Program's National List, the NOP recognizes the Organic Materials Review Institute (OMRI) Products List. OMRI is a 501(c)(3) nonprofit organization that specializes in the review of substances for use in organic production, processing, and handling. The OMRI Board of Directors broadly represents the industry’s segments; members include certifiers, farmers, suppliers, processors, handlers, consumer organizations, animal welfare groups, and environmental groups. OMRI's services are designed to handle all aspects of the organic industry; however, its primary focus is the decision makers who deal with the compliance status of generic materials and brand name products. Through the OMRI Generic Materials List and the OMRI Brand Name Product List, the Organic Materials Review Institute provides guidance regarding the suitability of material inputs according the USDA’s National Organic Program standards. OMRI evaluation of a product is optional for companies producing certified organic product. A product that carries the OMRI logo will assist producers in identifying products that qualify for organic approval. The OMRI lists website can be found in the resource chapter.
Resources

List of domestic and foreign certifying agents

http://www.ams.usda.gov/AMSv1.0/NOP

Maryland Department of Agriculture – Crop and Pasture Organic Application

http://www.mda.state.md.us/pdf/crop_pasture_app.pdf

Maryland Department of Agriculture - Exempt Producer Application

http://www.mda.state.md.us/pdf/exempt_producer_registration.pdf

Searchable list of NOP Accredited Certifiers

http://apps.ams.usda.gov/nop/

Rodale Institute – The New Farm Guide to Organic Certifiers

http://newfarm.rodaleinstitute.org/ocdbt/

National Organic Program Standards

http://www.ams.usda.gov/AMSv1.0/NOP

The National List of Allowed and Prohibited Substances

http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5068682

Organic Materials Review Institute (OMRI) Approved List of Organic Materials

http://www.omri.org/omri-lists