

# ORGANIC LIVESTOCK FEED PROCESSING BASICS

## *What are the benefits to processors?*

Organic is one of the fastest growing sectors of the food and agriculture industry in Minnesota, the nation, and abroad. Retail consumer sales of organic food have been growing at about 20% per year. Industry sources expect the trend to continue, predicting even higher annual increases in sales for meat and poultry between 2004 and 2008. In the marketplace, consumers have shown they are willing to pay premium prices for certified organic products.

Organic animals must eat certified organic feed. Many livestock producers report they find it difficult to source organic feed and bedding materials – a need that may spell opportunity for mills that want to add organic processing capability. In addition, many organic grains are grown for human food markets; livestock feed production may provide a way to retain value for organic grains that do not meet food-grade standards, such as splits and broken. And, although organic grain, beans, and other crops cost more than conventional ingredients, organic feed sells for premium prices.

Whether you are looking at converting your entire operation to organic, thinking of starting a new business, or considering the addition of certified organic processing to the services you currently offer, organic may add an attractive option for feed customers and benefit your bottom line.

### **What does “organic” mean?**

Organic agriculture is a guarantee about how an agricultural product was grown and handled before it reached the consumer. It's also a set of requirements for farmers who grow food or feed and processors who manufacture food or feed products. Organic farmers use manage-



ment systems that promote and enhance biodiversity, biological cycles, and soil biological activity. Organic feed processors maintain feed's organic status by segregating it from synthetic and other prohibited materials, carefully tracking ingredients, and using detailed record keeping.

The United States Department of Agriculture's National Organic Program (NOP) oversees the national organic rule (7 CFR Part 205) that went into effect in 2002. The NOP establishes consistent national standards for organic production, facilitates interstate and international commerce, assures that organic products meet a consistent standard, and protects consumers from fraudulent organic claims. The federal organic rule is posted on the USDA web site: [www.ams.usda.gov/nop](http://www.ams.usda.gov/nop)



### **What is “organic” livestock feed?**

In addition to other management requirements, organic livestock producers “must provide...a total feed ration composed of agricultural products, including pasture and forage, that are organically produced and... organically handled.” (NOP) Organic feed must not contain:

- animal drugs, including growth-promoting hormones;
- plastic pellets for roughage;
- urea or manure;
- mammalian or poultry by-products;
- feed, feed additives, or feed supplements in violation of the Federal Food, Drug, and Cosmetic Act;
- sulfites, nitrates or nitrites added during the production or handling process.

# So what does this mean for organic feed processors?

In order to produce feed labeled “100% organic” or “organic,” an operation must be certified according to the provisions of the NOP. For conventional feed processors, the four biggest differences in producing organic livestock feeds relate to ingredients, approved feed supplements, pest control, and contamination/commingling.

## 1) Ingredients and Labeling

**“100% Organic”:** Raw or processed livestock feed products sold, labeled, or represented as “100% organic” must contain only organically produced raw or processed agricultural ingredients (excluding water and salt). If feed supplements are added to the ration, then the feed ration must be labeled “organic” and not “100% organic”.

**“Organic”:** In order to label a feed ration “organic,” all agricultural ingredients must be certified organic and feed supplements or additives must be allowed per the NOP’s “National List of Allowed and Prohibited Substances”. The feed ration must not contain plastic pellets, urea, manure, or animal slaughter by-products.

For either “100% organic” or “organic” livestock feed, the label **must** identify the certifying agency and **must** identify all organic ingredients in the ingredient statement (it is permissible to use an asterisk, which is defined elsewhere on the package to identify ingredients that are organically produced). The label **may** also display the certifying agent’s seal or logo and/or the USDA Organic seal. The label must comply with all other Federal and State labeling requirements and the certification agency must approve finished product labels for compliance with the National Organic Standards before use.

## 2) Approved Feed Supplements

In general, all feed supplements added to a livestock feed ration must be necessary for adequate nutrition and health maintenance for the intended animal at its specific stage of life. Feed additives and supplements, as well as fillers, dust suppressants, and anti-caking agents must be either natural materials (such as calcium carbonate) or specifically listed on the National List and should be approved by the certifier before use. Additives and supplements must also be approved by the Food and Drug Administration (FDA) and the Association of American Feed Control Officials (AAFCO), as appropriate.

Processors should review all ingredients for each supplement or additive to ensure that all ingredients are approved, non-GMO, and not made from animal slaughter by-products. For instance, if gelatin is an ingredient in riboflavin, the gelatin must not be manufactured from animal by-products. Another example is salt. Yellow prussiate of soda, a prohibited substance, is commonly used as an anti-caking agent in salt. The processor must source salt that does not contain yellow prussiate of soda. Feed supplements and additives are a very complicated issue, so it’s best for processors to check with their certifiers before including in a ration.



## 3) Pest Control

Feed processors must implement facility pest management systems that rely on prevention, exclusion, sanitation, removal of pest habitat, management of environmental factors (such as temperature, light, humidity, etc.), mechanical or physical controls (such as traps, light, or sound), and use of lures and repellents that appear on the National List. In extreme cases, when these methods of pest control are not successful, a processor may be able to use synthetic substances not on the National List, provided that the processor and the certifying agent agree on the substance and method of application, and that the processor takes measures to prevent contact with the organically produced products, ingredients, and/or packaging.

For more about these topics, see sections 205.237, 205.306, and 205.603 of the National Organic Standards.

#### 4) Contamination and Commingling

Processors that have organic and non-organic operations in the same facility must be able to prevent commingling and contamination of organic with non-organic ingredients. Document every step of the process in writing – from scale tickets to separation and cleaning procedures, to grinding, mixing, and bagging. Clean all receiving equipment including augers, belts and conveyors and, if needed, purge them with organic product. (The flush must be sold as non-organic.) Also clean or flush any cleaning, grinding and blending equipment before an organic run. Note that storage must be dedicated for organic only (or you must document that the bin or container is clean before using it for organic crops/products). Synthetic fungicides, preservatives, and fumigants may not be used on packaging materials, containers, or storage areas. Any containers that have been in contact with non-organic products or prohibited substances must be thoroughly cleaned so that they pose no risk of contamination to the organic product.

It is worth budgeting extra time to train employees on the importance of preventing commingling and contamination – lack of proper training has been a source of non-compliance problems with the organic standards. It's helpful to be aware that management and staff changes at a facility can present challenges as well.



## How do I get organic certification?

**1. Application:** The NOP requires that organic processing facilities be certified by a USDA-accredited certification agency. Each certifying agency has its own application package and sets its own fees. Applications are generally about 10 pages long. They ask the processor to provide a detailed organic handling system plan and require documents such as floor plans, flow diagrams, and sample labels. Section 205.201 of the NOP lists a plan's necessary components:

- a description of practices and procedures to be performed and maintained;
- a list of all substances used in production or handling;
- a description of monitoring practices and procedures;
- a description of the record keeping system;
- a description of management practices and physical barriers established to prevent commingling or contamination; and
- any additional information required by the certifier.

The certifying agency reviews the application and works with the processor to make any necessary changes to the organic system plan.

**2. Inspection:** The agency assigns an inspector who reviews the application materials and facility records, then visits the plant for an on-site inspection, which generally takes 3 to 5 hours. Complete access to the production or handling operation, including any non-certified production and handling areas, is required. The inspector then completes an inspection report. The complete report usually consists of a document completed on-site and co-signed by the operator and the inspector, and another report completed by the inspector off-site.

**3. Review and Decision:** The certifying agency reviews the inspection report. If the agency determines that the facility meets NOP requirements and is following its own organic handling plan (created in Step 1), certification is granted. Certification allows the use of the term "organic" and use of the USDA Organic seal. Continuation of certification requires updating records on file with the certifier, an annual on-site inspection, and renewal fees. The whole inspection process, from application to certification, generally takes at least 8 weeks depending on the availability of inspectors and the certifier's workload. Records related to certification must be maintained for not less than 5 years.



### How do I choose a certifying agency?

The Minnesota Department of Agriculture recommends that you contact several agencies and ask about fee schedules (which can vary widely) and services provided. It is important to find a certifier you are comfortable working with. Each certifying agency is required to provide a list of its clients to the public. You may want to call certified organic processors in your industry and find out which agencies they are using. Feed suppliers may want to retain a certifying agency accredited by the USDA to certify both handling (processing) and livestock operations. If you intend to sell to international markets, find out which certifier your foreign customer prefers. You can get a list of accredited certifiers at [www.mda.state.mn.us/esap/organic](http://www.mda.state.mn.us/esap/organic).

## Case studies:

### Minnesota Buckwheat Growers Association

This producer co-op in Wadena, Minnesota, opened a certified organic feed mill in 2001 and handles all grains, not just buckwheat. In the beginning, the Buckwheat Growers simply cleaned and screened members' grain. It went on to develop a full-scale milling business producing blended certified organic livestock and poultry feeds. Since it also creates feed from transitional grains (grown without synthetic chemicals, but not yet certified organic), equipment clean-out prior to organic production runs is a must. The first 75-100 pounds of organic grain run through their equipment "flushes" the system and is used in non-organic products.

Members provide most of the grains needed, although the Buckwheat Growers occasionally purchases additional grains as well. The mill buys mineral supplements, which must either be natural or "approved" materials from the National List. Pest control is generally handled through good housekeeping, mechanical traps, and use of approved materials such as diatomaceous earth.

Tom Bilek, president of the Buckwheat Growers, says tracking and documentation are time consuming and require extra staff. All the grains that go into the organic feeds must be tracked from arrival, through the plant, to departure as bagged and bulk products. The Buckwheat Growers assigns a lot number to each load as it arrives. A second batch number is created for each run of feed, so that all ingredients can be traced back to their sources. Tom says organic animal feed has been a good addition to the business because it provides an outlet for materials the Buckwheat Growers would otherwise have difficulty selling. Business is growing, he says, as the co-op develops relationships with organic grain, poultry, and livestock producers in the state.

### S&S Grains, LLP

S&S Grains, LLP in West Central Wisconsin has been in the organic feed business since about 1990. S&S processes organic wheat, soybeans, corn, oats, and barley into organic feed for organic dairy and poultry producers. S&S sources most ingredients from Wisconsin, Minnesota, and Iowa.

Co-owner Bob Scharlau, a lifelong organic farmer, said the company decided not to produce both organic and non-organic products, because preventing commingling would have been too difficult for their equipment. The mill's most important pest control strategy is good housekeeping. They keep the facility clean, try to use the oldest grain first, and make sure that storage bins are completely emptied at least once every one or two years for a total clean-out. They also use traps as needed.

S&S began the organic business at the request of one large customer. The customer is no longer with them, but since then, the mill's business has grown steadily. Bob says the feed business has been a good addition to his farming operation.



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Community Outreach and Assistance  
Partnership Program



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