

Organic Certification Options for NW Processors

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Why Process Organically

• Market Demand

- Health conscious consumerism
- By 2001 Natural and Organic predicted to be \$35-36 billion

• Value Added

- Premium price
- Declining price differential

• Philosophy

- Stewardship and sustainability



Describe the state of the industry and what its all about.

Some of these numbers are credited to Steve Harper-Cascadian Farm given in his talk at NWFPA in January 2000.

Market Demand:

Assume 20% annual growth for both Natural Industry & Organic:

By 2001, Organic = \$US 8-9 BB.

2000 organic sales \$6 billion

Current Natural Products Market = 3% of U.S. Grocery industry.

Five Independent studies conclude >30% of U.S. Households are interested in healthy eating.

Current = \$13 Billion Dollars (3% of US Grocery Industry in 1997)

Potential = \$125 Billion (30% of U.S. Grocery Industry)

For Northwest and West Coast processors, trade with Japan and Asia is big business.

Value Added:

Declining Cost of Organic Food Production

Growth of Retail Outlets for Organic Products

Capital Investments from Financial Community

Philosophy:

Environmental Awareness

Worldwide Harmonization of Organic Standards

What is Organic Processing?

- **Safe**-Must be, just as NOG is
- **Pesticide & Herbicide Free**
 - What consumers expect
- **Chemical & Preservative Free**
 - What consumers perceive, not always the case
- **Not Commingled**-To insure the above two
- **Healthy**-No claims made



Discuss the difference between what people think organic means and what it is from the practical aspect of a processor.

Safe is still very (most!) important. Use of manure, unclear water, unchlorinated water, no use of preservatives...are all of concern.

Pesticide free: one of the basic tenants of organic farming and processing.

Chemical free: perception, but not completely true. This was one cause of much of the controversy in the original bill, and continues to be one of the biggest undone parts of the bill-to be discussed later.

Healthy: USDA careful to not let organic be perceived as healthier or more nutritious than conventional-just different.

USDA Role

- Organic Foods Production Act of 1990
- National Organic Program (NOP)
 - Final rule published Dec. 21, 2000
- Allowed synthetics (the National List)
- International Harmonization



What:

Organic Foods Production Act of 1990 (OFPA). This is the National Organic Program. It is to be administered by USDA.

Allowed synthetics. This is the national list that will (hopefully) standardize synthetic inputs among all certifiers. Includes farm and livestock items, but for processing it is a very important document.

When:

Dec 97 initial proposal-disastrous. 275,000 mostly negative comments, March 2000 revised proposal-much better, 41,000 comments. Final rule Federal Register/ vol. 65, No. 249/ Thursday, December 21, 2000/ Rules and Regulations.

Why:

Slightly different standards among the different certifiers. Because of reciprocity they were allowing things that they wouldn't have if they were the certifier. Initiated by the certification agencies. Example: SO₂ in wine-allowed by OTCO, rejected by CCOF.



This is the symbol that what all the fuss is about.

Federal Register

vol. 65, No. 249

Thursday, December 21, 2000

Rules and Regulations.

The Act was published in December. The clock starts on February 20, 2001.
Everyone has 18 months to come into compliance.

Label cannot be used until August 2002 (18 months from implementation)

USDA rules not only set a minimum requirement , but effectively set a maximum standard. More about this later.

Changes came about because of effective lobbying by NFPA.

The NOP is a marketing program of USDA AMS. Neither the OFPA nor NOP address food safety nor nutrition.

National Organic Program

- Definitions
- Applicability
- Production and Handling Requirements
- Labels and Labeling
- Certification
- Accreditation of Certifying Agents
- National List



I'll discuss these various aspects of the NOP in more detail

These are the main categories (related to processing) in the Act.

Definitions

🍎 Organic

- A labeling term that refers to an agricultural product produced in accordance with the Act and the regulations in this part.

🍎 Organic Production

- A production system that is managed in accordance with the Act and regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.

🍎 National List

- A list of allowed and prohibited substances as provided for in the Act.



A few pertinent definitions.

No “processors” nor “farmers” under USDA.

Organic is not an end product, but a system that achieves loftier goals than just the production of an end product.

This includes environmental stewardship, sustainability, social good, healthier food, etc.

National List to be discussed in more detail later.

Applicability

- What has to be certified
 - Any product represented as “Organic”
 - Any operation claiming to produce “Organic” products
- Exemptions and Exclusions
 - <\$5000 organic business
 - Distributors, shippers, storage facilities
 - Retail food establishment
 - All need records for >3 years
 - All need to prevent contamination



This information is lifted and condensed directly from the bill

§ 205.100 Applicability

- (a) ... production or handling operation that produces “100 percent organic,” “organic,” or “made with organic...” must be certified ...
- (b) ... production or handling operation ... deemed to be certified under the Act until the operation’s next anniversary date of certification.

§ 205.101 Exemptions and exclusions

- (a) (1) ...gross agricultural income from organic sales < \$5,000 annually
- (2)...retail food establishment that handles organically produced agricultural products but does not process them
- (3)...handles agricultural products that contain less than 70%organic ingredients
- (b) (1)... handling operation ...only sells “100 percent organic,” “organic,” or “made with organic...” and
 - (i) Are packaged ... and (ii) Remain in the same package and are not processed while in the control of the handling operation.
- (c) (1) Records maintained by exempt operations: (i) Prove ingredients were organically produced and handled; and (ii) Verify quantities produced from such ingredients.
- (2) Records must be maintained for no less than 3 years beyond their creation ...

Certification

- Who—Private or State certifiers
- What—Third party certification
- When—August 2002
- Why—COFA 1990, OFPA–USDA regs
 - Making organic claims-must be third party certified
- Costs—Dependent on amount of OG business



Who: Private; Oregon Tilth, CCOF, FVO, OCIA, QAI, OGBA, others
State; Washington, Idaho, Texas, Colorado, New Mexico...

What: Definition of Certifying Agent

An independent public or private organization that uses on-site inspections and document review to verify that farmers, handlers, and processors are producing and handling food in accordance with applicable state, federal, and private organic standards.

These will be the organizations actually going into the plants to do the certifications and insure compliance with the bill.

When: OFPA originally published in 1990

NOP first in March 2000

Final rule Dec 2000

Takes effect Feb. 20, 2001 with 18 month to fully comply (August 2002)

Why: **Anyone making organic claims will have to be third party certified.**

Cost estimates:	small farm	med farm	large farm	super farm
OTCO-in	608	1603	2517	?150,300?
OTCO-out	768	1698	2852	12,052
WSDA	480	1555	3040	12,480

Certifiers

- State or Private
 - WSDA, ISDA, OTCO, QAI...
- Accredited
 - By USDA 1 year, for early applicants
- Advice
 - Not allowed-conflict of interest
- Imports
 - Equivalency



State can set higher standards, but private can't. State program would have to be approved by USDA. Only applies to product produced in that state. Can't be used as a trade barrier.

Accreditations will be announced by USDA 1 year from implementation for certifiers that apply within 6 mo. (August 2001).

If certifier is accredited, processors will be considered in compliance until the processors next renewal date.

Consulting or advice by certifier: specifically prohibited. Potential for conflict of interest. Don't know whether that extends to the inspector, but it probably does.

Inspectors are the eyes and ears of the certifying agents. They may be independent contractors or staff.

Can't force use of certifier (or USDA) label.

Importation requires that USDA recognize the foreign certifier as meeting the same standards as domestic production.

Legislative changes in WSDA program won't occur until '02.

Oregon wants input about what to do. Write to ODA.

Idaho isn't sure what they'll do.

Contacts

• USDA

- <http://www.ams.usda.gov/nop/index.htm>

• Oregon Department of Agriculture

- Ron McKay 503-986-4720

• Washington State Department of Agriculture

- Miles McEvoy 360-902-1924

• Idaho State Department of Agriculture

- Margaret Messner 208-332-8620

• Oregon Tilth

- 503-378-0690



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Production and Handling

- Organic Handling Requirements
 - Acceptable processes
 - Allowed ingredients
- Pest management
 - Acceptable methods
 - Allowed materials
- Commingling
- Contact with Prohibited Substances



Definition: Handler: Any person engaged in the business of handling agricultural products, including producers who handle crops or livestock of their own production, except such term shall not include final retailers of agricultural products that do not process agricultural products.

§ 205.270 Organic handling requirements.

- (a) Mechanical or biological methods...cooking, freezing, canning, packaging...for the purpose of retarding spoilage or ... preparing the agricultural product for market.
...no ionizing radiation
<ingredients discussed later>
- (c) The handler ... must not use ... (1) Practices prohibited...(2) ...volatile synthetic solvent or other synthetic processing aid...

§ 205.271 Facility pest management

- (a) (1-3) Removal of habitat, exclusion, environmental controls
- (b) (1-2) Mechanical or physical means, lures or repellents consistent with the National List
- (c-f) exceptions with certifier ok, handling plan update and prevention of contact with organic products.

Commingling: must not happen. Organic handling plan must specify how you will prevent any contamination.

Contact with Prohibited Substances: Must not occur. Includes packaging, labels, reusable containers that may be treated, as well as ingredients.

National List

- Nonagricultural Ingredients
 - Nonsynthetics allowed
 - Synthetics allowed
 - Within the % labeling limits
- If it isn't on the National List-you can't use it



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

(a) Nonsynthetics allowed: 20 categories with about 27 items

- (1) Acids... (ii) Citric—produced by microbial fermentation of carbohydrate substances.
- (5) Colors, nonsynthetic sources only.
- (8) Enzymes ...
- (9) Flavors...no solvents ... or any artificial preservative.
- (17) Sodium bicarbonate.
- (19) Waxes—nonsynthetic.
- (20) Yeast—growth on petrochemical substrate and sulfite waste liquor is prohibited.

(b) Synthetics allowed: about 36 listings

- (2) Ammonium bicarbonate—for use only as a leavening agent.
- (4) Ascorbic acid.
- (9) Chlorine materials—disinfecting and sanitizing food contact surfaces... residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.
- (12) Glycerides (mono and di)—for use only in drum drying of food.
- (19) Nutrient vitamins and minerals, in accordance with 21 CFR 104.20,
- (32) Sodium hydroxide—prohibited for use in lye peeling of fruits and vegetables.
- (33) Sodium phosphates—for use only in dairy foods.
- (34) Sulfur dioxide—in wine labeled “made with organic grapes,” ...total < 100 ppm.
- (35) Tocopherols—derived from vegetable oil

National List

- Non-organically produced agricultural ingredients
 - Within the % labeling limits
- If it isn't on the National List-you can't use it
- Amending the list



§ **205.606** Non-organically produced agricultural products allowed as ingredients in products labeled as “organic” or “made with organic”. ...Any agricultural ...product may be used ... when the product is not commercially available in organic form.

five listings (a) Cornstarch (native)

(b) Gums—water extracted only (arabic, guar, locust bean, carob bean)

(c) Kelp—for use only as a thickener and dietary supplement

(d) Lecithin—unbleached

(e) Pectin (high-methoxy)

(e) A State organic program and any amendments to such program must be approved by the Secretary prior to being implemented by the State.

§ **205.607** Amending the National List

(a) ... the National Organic Standard Board (NOSB) ... evaluated ... for inclusion on or deletion from the National List ...

(c) A petition to amend the National List must be submitted to:

Program Manager

USDA/AMS/TMP/NOP

Room 2945, South Building

P.O. Box 96456

Washington, DC 20090–6456.

OTCO: ingredients 91 a/r; aids 18 a/r; cleaners/sanitizers 20 a/r; pest control 18, 5 a/r

Lots of items not addressed by the National List.

Labels and Labeling

• Categories

- 100% Organic
- Organic
- Made with organic (specified ingredients or food group(s))
- <70% organic ingredients

• Calculation

- By weight or volume
- Less salt and water



No health claims can be made. FDA and FSIS labeling regulations still apply.

§ 205.302 Calculating the percentage of organically produced ingredients.

(a) The percentage ... must be calculated by:

(1) Dividing the total net weight (excluding water and salt) of combined organic ingredients at formulation by the total weight (excluding water and salt) of the finished product.

(2) Dividing the fluid volume of all organic ingredients (excluding water and salt) by the fluid volume of the finished product (excluding water and salt) if the product and ingredients are liquid. If the liquid product is identified on the principal display panel or information panel as being **reconstituted from concentrates, the calculation should be made on the basis of single-strength concentrations** of the ingredients and finished product.

(3) For products containing organically produced ingredients in both solid and liquid form, dividing the combined weight of the solid ingredients and the weight of the liquid ingredients (excluding water and salt) by the total weight (excluding water and salt) of the finished product.

(b) The percentage of all organically produced ingredients in an agricultural product must be **rounded down to the nearest whole number**.

(c) ... percentage ... determined by the handler who affixes the label on the consumer package and verified by the certifying agent ...

Can't have both an organic form and non-organic form of the same ingredient

End of NWFPA talk

- This was where I ran out of time
- Additional slides included for reference
- Organic juice processing talk
 - UC Davis 3/13-14/2001



At the NWFPA presentation I finished about here. I have included the rest of these slides as they may be of interest to folks.

My next presentation will be a talk titled
“Juice Processing: The Organic Perspective”
at the
Juice Processing and Quality Workshop
UC Davis 3/13-14/2001
Contact: University Extension, UC Davis 800-752-0881

“100 percent Organic”

• Principal display panel

- “100 percent organic” (optional)
- USDA seal and certifying agent seal(s) (optional)

• Information panel

- “100% organic” (optional)
- Certifying agent name (required)

• Ingredient statement

- Multi-ingredient product, identify each ingredient as “organic” (optional)



Labeling category

"100 percent Organic" (Entirely organic; whole, raw or processed product).

New category that hasn't been used by certifiers in the past.

Principal display panel

"100 percent organic" (optional).

USDA seal and certifying agent seal(s) (optional)

Information panel

"100% organic" (optional)

Certifying agent name (required); business/Internet address, tele. No. (optional)

Ingredient statement

If multi-ingredient product, identify each ingredient as "organic" (optional)

Other package panels

"100 percent organic" (optional). USDA and certifying agent seal(s) (optional)

Everything in the product must be 100% Certified organic. No processing aids allowed unless they are all certified organic. Example: one could use certified organic rice hulls as a press aid, but not enzymes nor bentonite.

“Organic” (95% or more organic ingredients)

• Principal display panel

- “Organic” (plus product name) (optional)
- “X% organic...” (optional) USDA and certifying agent seal(s) (optional)

• Information panel

- “X% organic...” (optional)
- Certifying agent name (required)

• Ingredient statement

- Identify organic ingredients as “organic”



Labeling category

"Organic" (95% or more organic ingredients).

Principal display panel

"Organic" (plus product name) (optional).

"X% organic" (optional) USDA seal and certifying agent seal(s) (optional).

Information panel

"X% organic" (optional)...

Certifying agent name (required); business/Internet address, tele. No. (optional)

Ingredient statement

Identify organic ingredients as "organic" (required if other organic labeling is shown).

Other package panels

"X% organic" (optional). USDA and certifying agent seal(s) (optional).

Most common category. All processing aids must be on the National List. No prohibited processing practices used on anything in the 5% non-organic ingredients.

“Made with Organic Ingredients” 70-95%

• Principal display panel

- “made with organic (ingredients or food group(s))” (optional)
- “X% organic...” (optional)
- Certifying agent seal of final product handler (optional)
- Prohibited: USDA seal

• Information panel

- “X% organic ingredients” (optional)
- Certifying agent name (required)
- Prohibited: USDA seal

• Ingredient statement

- Identify organic ingredients as “organic”



Labeling category

"Made with Organic Ingredients" (70 to 95% organic ingredients).

Principal display panel

"made with organic (ingredients or food group(s))" (optional).

X% organic..." (optional)

Certifying agent seal of final product handler (optional).

Prohibited: USDA seal

Information panel

"X% organic ingredients" (optional).

Certifying agent name (required); business/Internet address, tele. No. (optional).

Prohibited: USDA seal

Ingredient statement

Identify organic ingredients as "organic" (required if other organic labeling is shown).

Other package panels

"made with organic (ingredients or food group(s))" (optional) "X% organic" (optional).

Certifying agent seal of final product handler (optional).

Prohibited: USDA seal.

No prohibited practices allowed on any of the ingredients (organic and non-organic). OK to use substances not on the National List in the 30% non-organic portion.

Organic ingredients- less-than 70%

• Principal display panel

- Prohibited: Any reference to organic content
- Prohibited: USDA seal & certifying agent seal

• Information panel

- “X% organic...” (optional)
- Prohibited: USDA seal & certifying agent seal

• Ingredient statement

- Identify organic ingredients as “organic” (optional) (required if % organic is displayed)



Labeling category

Less-than 70% organic ingredients.

Principal display panel

Prohibited: Any reference to organic content of product.

Prohibited: USDA seal & certifying agent seal.

Information panel

“X% organic...” (optional)

Prohibited: USDA seal & certifying agent seal.

Ingredient statement

Identify organic ingredients as “organic” (optional) (required if % organic is displayed).

Other package panels

Prohibited: USDA seal & certifying agent seal).

No prohibited practices allowed on organic ingredients. Ok to use prohibited practices on non-organic ingredients.

Can I Process Organically?

- Processor Categories
- Inputs
- Sanitation
- Production
- Commingling and product integrity
- Audit Trail
- Certification



This is the preview of the rest of the categories that will be discussed in more detail.

Historical adherence to a Minimalist and Natural approach. Reliance on basic processing techniques - i.e. cooking, baking, heating, drying, mixing, grinding, etc.

Precautionary Principle vs. Risk Assessment - burden of proof proving that a material or process is safe rather than assuming safety until risks outweigh the benefits.

Segregation from Non-Organic Food

All of these categories to be discussed in subsequent slides.

Processor Categories

- Primary producer
 - You pay for certification
- Co-packer
 - Can only organically process for the certificate holder
- Handler
 - certification depends on activity
- Repacker, Retailer, Trucker



Lots of different categories depending on who takes possession, what is being done etc.

Primary producer:

- Pays for certificate and pays certifier fees.
- Responsible for submitting production summaries.
- Responsible for acquiring all documentation (certificates of organic origin).
- May or may not take legal possession of product (generally does).

Co-packer:

- Primary pays for certificate and certifier fees.
- Primary generally responsible for acquiring necessary documentation. Exceptions being when produce is directly shipped from farm to co-packer. Then co-packer is responsible to insure the organic status of the load and retain documentation.
- Can only process for the primary.
- Does not take legal possession of product. Is only providing a service for a fee.

Handler:

- Warehouse services, cold storage services, distributor.

Audit Trail

- 🍏 Farm to consumer and back
 - This is the goal your expected to reach
- 🍏 Receiving Records
 - BOL and weigh tickets must clearly indicate OG
- 🍏 Documentation of OG
 - All inputs must be third party certified
- 🍏 Processing Records
 - All lot numbers and records must show OG status and inputs
- 🍏 Shipping Records
 - Customer needs to know its OG



In CA all documents must contain the COFA wording.

“Grown and processed in accordance with the California Organic Foods Act of 1990”

Farm and back:

Requirement is to be able to track all the ingredients from a retail package back to the farm(s) of origin.

Only responsible for the audit integrity from receiving to shipping dock.

Not difficult to do with proper record keeping.

Receiving:

Make sure lot numbers and/or farm and field of origin are clearly marked.

Documentation:

All inputs must be accompanied by valid organic grower or processor certificates.

Processing aids and non-organic ingredients must have appropriate documentation that they are acceptable, and haven't been subjected to prohibited practices.

Processing records:

Must indicate all inputs to product with lot numbers and amounts.

Shipping records:

Must indicate organic status of shipment, and lot numbers of product.

Sanitation

- **GMP** (Good Manufacturing Practices)
 - Must be followed
- **Cleaning**
 - Standard cleaning practices with extra rinses
- **Sanitizing**
 - Cl, ClO₂, H₂O₂, peroxyacetic acid...
 - No Quats



GMP:

for general plant sanitation and safety

Standard cleaning procedures with extra water rinses to insure removal of chemical cleansers.

May require more extensive equipment tear down and cleaning than is routinely done between runs.

Cleaning:

Make sure there isn't any chance for co-mingling or contamination.

Generally the SOP's of a plant are still applicable to organic processing.

Some changes and awareness of potential contamination points or troublesome to clean areas are needed.

Sanitizing:

Don't quit cleaning, because the organic folks don't like chemicals. Extra rinses and the use of suitable chemicals are acceptable.

Reason for no Quats (quaternary ammonium based sanitizers). They are great sanitizers because they leave a residue and have a good kill spectrum and time. Because they leave a residue and don't rinse off well they are incompatible with OG processing. There are a few exceptions, but don't rely on exceptions to allow their use-change to a compatible sanitizer.

New regulations may mean changes in allowed cleaners and sanitizers. Check with your certifier.