

**Food Alliance Standard for   
Nursery and Greenhouse Operations**

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# About Food Alliance

Food Alliance is a 501(c)(3) nonprofit organization that defines sustainability in agriculture and food handling operations with sustainability standards and a comprehensive third-party certification program that addresses a comprehensive range of consumer and industry concerns. Food Alliance works for safe and fair working conditions, humane treatment of animals, and careful stewardship of ecosystems.

Products that display the Food Alliance Certified seal include meats, shellfish, eggs, dairy, grains, legumes, mushrooms, a wide variety of fruits and vegetables, prepared products made with these certified ingredients, and ornamental plants. For more information visit [www.foodalliance.org.](http://www.foodalliance.org/)

# Overview: Food Alliance Tools for Producers

Food Alliance (FA) provides agricultural producers with a suite of tools to assess, manage, and certify sustainability practices. These tools help farmers, ranchers and growers manage their operations for environmentally, socially, and economically sound outcomes.

* **FA Standards** provide a comprehensive definition to guide producers in achieving greater sustainability in their operations.
* **FA Evaluation Tools** allow producers to assess current sustainability performance and set sustainability objectives – either as a prelude to certification or as a best management practice. Third-party inspectors use the Evaluation Tools to determine if an operation meets the requirements of the Food Alliance Certification program.
* **FA Certification Program** is a voluntary and credible way for producers to distinguish their sustainably- managed operations and products in the marketplace to customers and consumers.

***How are the Food Alliance Tools created?***

The Food Alliance Standards, corresponding Evaluation Tools and certification criteria are developed with input from a broad group of stakeholders. Initially, Food Alliance staff work with a consultant to draft the criteria. A select group of scientific researchers, usually from universities and public agencies, provide the first round of review and comment.

Once those comments are integrated into the Evaluation Tool criteria, a second round of review gathers comments from individuals with expertise in the standard area, such as industry organizations, private consultants, and non-profit staff (e.g., consumer group representatives, farm labor representatives, and environmentalists). Second round comments are then integrated into the criteria before Food Alliance inspectors, producers and handler/processors, and other practitioners provide final review.

The final draft is field tested prior to the adoption of the criteria. The names of all consultants and reviewers are listed at the end of these documents, for those interested in seeing who had input. Footnotes are often provided to ensure clarity and consistency of interpretation.

***How are the Food Alliance******Tools maintained?***

Food Alliance values continual improvement as a key component to sustainable management of agricultural operations. Similarly, Food Alliance conducts regular review of its standards and criteria for relevance and effectiveness in assessing sustainable practices and outcomes.

When necessary, revisions are made to the standards and evaluation tools through a consultation and review process similar to that described above for the creation of new criteria. Affected certified operations are notified in advance of changes and provided reasonable time to come into compliance with new certification expectations.

**Structure of the Food Alliance Standards and Evaluation Tools**

Food Alliance Standards set a high bar that recognizes innovation and continual improvement. Growers receive credit for innovative practices that achieve the intended social, environmental, and economic outcomes. Likewise, growers participate in defining continual improvement goals, and are encouraged to define their own path for achieving those goals.

Food Alliance Sustainability Standards are organized by "standards areas." Standards areas are high-level, meaningful components of social and environmental sustainability that can be managed in an operation (e.g., Soil and Water Conservation).

Food Alliance Evaluation Tools detail criteria pertinent to each standards area. Evaluation criteria comprise a list of essential components for successful management within each standards area. The bulk of the criteria are scored criteria which yield a score based on performance levels (e.g., a score of 3 out of 4 on soil organic matter management). Evaluation Tools also include fixed evaluation criteria which yield a yes/no determination (e.g., no use of prohibited pesticides).

An operator or inspector uses the Evaluation Tool to measure performance to the corresponding Sustainability Standard. The Evaluation Tool includes all standard areas and their evaluation criteria. Outcomes of management practices are arranged into levels of achievement within each evaluation criterion:

Level 1: Meets legal requirements, or, in the absence of law, minimum expectations

Level 2: Common practice or industry standard

Level 3: Progressive management with demonstrated environmental stewardship and social responsibility

Level 4: Visionary management with exceptional effort to meet, and achievement of, social and environmental goals

Indicators provide specific suggestions for how level of achievement can be assessed for each evaluation criterion. In the context of a Food Alliance inspection, indicators are used by the inspector to verify and validate achievement within each level. In the context of self-assessment, indicators provide guidance for achievement within each level.

# Food Alliance Certified: Sustainability Certification Program

The voluntary Food Alliance Certification Program gives producers a credible way to distinguish their sustainably-managed operation and products in the marketplace to customers and consumers. With certification, products grown by these operations are eligible to display a Food Alliance Certified eco-label.

Certification to the Food Alliance Standards means the operation is managed with a demonstrated focus on sustainability practices as determined by a rigorous assessment that includes an on-site inspection for compliance with public, peer-reviewed criteria.

During certification, an independent third-party verifies management practices against the Food Alliance Evaluation Tools. Following a rigorous on-site inspection, an independent verifier determines whether to award certification. Certification is a tool that helps add credibility to sustainability claims through independent verification to meaningful standards.

**What are the requirements for certification?**

Producers seeking certification to the Food Alliance Standards must accomplish the following, as verified by regular, third-party site inspections:

* Meet all fixed evaluation criteria;
* Achieve an average Level 3 (out of 4) performance for evaluation criteria within any given standard area (progressive management with demonstrated environmental stewardship and social responsibility); and
* Maintain ongoing requirements for setting goals and achieving continual improvement.

**What is the certification process?**

Producers interested in pursuing Food Alliance Certification should first read the Food Alliance Sustainability Standards and Evaluation Tools relevant to their operation, paying close attention to any crop- or species­ specific criteria for the products to be sold as Food Alliance Certified.

Once prospective Food Alliance Certified producer is familiar with the standard, evaluation criteria and certification requirements, and feel that certification is right for their operation, they may begin the certification process. The process includes application, on-site inspection, review of inspection results, receipt of certificate, licensing agreement, and label submission. Information and application materials are available on the web: [www.foodalliance.org/certification](http://www.foodalliance.org/certification).

**What type of operations are best suited for Food Alliance certification?**

Food Alliance certification best suits producers who: 1) actively manage their operations with environmental and community impacts in mind; 2) have a commitment to continually strive to innovate and do better; and 3) wish to differentiate their company and its products in the marketplace through thoughtful marketing that highlights their sustainable practices.

Producers interested in pursuing Food Alliance certification should understand that certification is a tool that helps add credibility to their sustainability claims through outside verification to meaningful standards.

Email [info@foodalliance.org](mailto:info@foodalliance.org) to learn more about the FA Sustainability Certification Program.

# Overview: Food Alliance Standard for Nursery and Greenhouse Operations

The Food Alliance Standard for Nursery and Greenhouse Operations provides a comprehensive definition to help nursery and greenhouse operators achieve greater sustainability outcomes. Performance to the standard is measured using the corresponding Food Alliance Evaluation Tool for Nursery and Greenhouse Operations.

The Food Alliance Evaluation Tools provides growers with a structured methodology to self-assess current sustainability performance – and set sustainability objectives – either as a prelude to certification or as a best management practice. Third-party inspectors contracted by International Certification Services use the Evaluation Tools to conduct on-site inspections, the results of which determine whether an operation meets the requirements of the Food Alliance Certification program.

## What issues does the Food Alliance Standard for Nursery and Greenhouse Operations address?

The standard addresses a comprehensive range of consumer and industry concerns, including: soil and water conservation; integrated pest, disease and weed management; safe and fair working conditions; operational efficiency (energy use, recycling, etc.); and wildlife habitat and biodiversity conservation.

## To what types of operations does this standard apply?

The standard applies to North American nursery and greenhouse operations producing one or more of the following products:

* Nursery: container and in-ground grown woody ornamentals for landscaping
* Annuals: bedding plants/hanging baskets/containers typically sold in the spring for summer/fall use
* Perennials: container grown usually by color/annual producers and sold spring thru fall
* Foliage: Tropical plants mostly grown for indoor use
* Potted Flowering Plants: Holiday and general potted plants such as poinsettia, Easter lily, etc.
* Cut Flowers

The standard does not currently apply to Christmas tree production or tree farms.

## Why did Food Alliance develop this standard?

Food Alliance developed the Sustainability Standard for Nursery and Greenhouse Operations upon industry request. Representatives of the Oregon Association of Nurseries (OAN) approached Food Alliance after some of their members requested independent, third-party verification of their sustainability practices. Because some of OAN's members were already Food Alliance Certified for other crops, they were familiar with Food Alliance's reputation for stringent, comprehensive standards and certification—and for constructive collaboration with farmers and supply chain members. This signal of industry support gave Food Alliance the confidence to raise funds and expand its standards development and certification services to horticulture.

## How are Food Alliance Evaluation Tools created?

Evaluation tools and criteria are used to evaluate performance and outcomes for social and environmental responsibility. Initially, Food Alliance staff work with a consultant to draft the criteria. A select group of scientific researchers, usually from universities and public agencies, provide the first round of review and comment.

Once those comments are integrated into the criteria, a second round of review gathers comments from those with expertise in the standard area, such as industry organizations, private consultants, and non-profit staff (e.g., consumer group representatives, farm labor representatives, and environmentalists). Second round comments are then integrated into the criteria before Food Alliance inspectors, Food Alliance producers and handler/processors, and other practitioners provide final review.

The final draft is field tested prior to the adoption of the criteria. The names of all consultants and reviewers are listed at the end of the criteria, for those interested in seeing who had input. Footnotes are often provided to ensure clarity and consistency of interpretation.

## Who participated in developing the evaluation criteria for this standard?

Individuals with professional experience and expertise in the nursery industry – agencies, universities and the private sector – contributed to criteria development and review and provided opportunities for field testing.

The nursery evaluation criteria were developed in collaboration with Don Richards[, Applied Horticultural](http://www.appliedhortconsulting.com/) [Consultants.](http://www.appliedhortconsulting.com/) The following individuals reviewed and provided comment on the evaluation criteria:\*\*

* James Altland, Research Horticulturist, Application Technology Research Unit, USDA-ARS
* Sam Doane, Production Horticulturist, J. Frank Schmidt and Son, Co.
* Alan Elliott, Operations Manager, Carlton Plants, LLC.
* Jonathan Frantz, Research Horticulturist, Application Technology Research Unit, USDA-ARS
* Kate Knox, Salmon Safe
* John Lea-Cox, Professor and University Research and Extension Specialist, Plant Science and Landscape Architecture, College of Agriculture and Natural Resources, University of Maryland
* John Majsztrik, University of Maryland
* Robin Rosetta, Associate Professor, North Willamette Research & Extension Center, Oregon State Univ.
* Walter Suttle, Monrovia Nursery
* Sarah White, Assistant Professor, Nursery Extension Specialist, School of Agricultural, Forest and Environmental Sciences, Clemson University

\*\*Not all reviewer comments and suggestions were incorporated in the final draft of our evaluation criteria, so recognition of their contribution does not constitute an endorsement.

The Oregon Association of Nurseries (OAN) provided valuable support through industry contacts, research, and outreach. It is promoting the new standard and criteria as a set of tools the entire horticulture industry can use to assess operational sustainability and management practices. [OAN](http://www.oan.org/) views sustainability certification as a potential market differentiator for its members. [Salmon-Safe](http://www.salmonsafe.org/) advised on water quality components of the criteria. It is supporting outreach and implementation of the nursery certification program in partnership with Food Alliance.

**Who supported the development of this standard?**

Food Alliance received funding from:

* USDA Specialty Crops Grant administered by the Oregon Department of Agriculture
* Oregon Governor’s Fund for the Environment granted to Salmon Safe
* Meyer Memorial Trust Willamette Restoration Initiative
* Bullitt Foundation
* Nike Employee Grant Fund of The Oregon Community Foundation

## How is the standard maintained?

Food Alliance values continuous improvement as a key component to sustainable management of agricultural operations. Similarly, Food Alliance conducts continuous review of its standards and criteria for relevance and effectiveness in assessing sustainable practices and outcomes.

When necessary, revisions are made to the standards and criteria through a consultation and review process similar to that described above for the creation of new criteria. Affected certified operations are notified in advance of changes and provided reasonable time into compliance with new certification expectations.

# Content of the Food Alliance Standard for Nursery and Greenhouse Operations

Food Alliance Sustainability Standards are organized by "standards areas." Standards areas are high-level, meaningful components of social and environmental sustainability that can be managed in an operation.

This document lists all standards areas and evaluation criteria for the Food Alliance Standard for Nursery and Greenhouse Operations. For the full and comprehensive listing of evaluation criteria, performance levels and indicators refer to the Food Alliance Evaluation Tools for Nursery and Greenhouse Operations, available for download at: [www.foodalliance.org/nursery.](http://www.foodalliance.org/nursery)

## Standard Area: Safe and Fair Working Conditions

Producers develop nursery employment policies to establish open channels for communicating with employees about such issues as workplace safety and job satisfaction. They provide incentives and opportunities for the development of employee skills and incorporate quality of life issues into daily decision making for themselves, their families and employees.

### Scored Criteria Address:

* Minors, children and family members in the workplace
* Grievance procedures and policies
* Recognizing and supporting employee input for workplace improvement
* Employee support services
* Discipline process
* Nondiscrimination policy
* Hiring practices, communicating expectations and policies
* Workforce development and new skills training
* Compensation practices
* Employee benefits
* Employee housing and family support services
* Pesticide handler/applicator safety
* Hazardous materials emergency management
* Sanitation and general safety

## Standard Area: Wildlife Habitat and Biodiversity Conservation

Producers foster vegetative cover, food, and water resources necessary for habitat by using methods such as establishing or maintaining biological corridors, managing mowing and grazing cycles, and restoring or protecting wetlands, prairies and woodlands. They take steps to provide habitat for beneficial insects to reduce the need for insecticides. Predator control is managed using least impact possible, and trapping/slaughter is only used as a last resort.

### Scored Criteria Address:

* Continuing education for biodiversity conservation
* Biodiversity plan
* Reducing on-site threats to wildlife
* Biodiversity conservation in plant production areas and cropped/grazed areas
* Biodiversity conservation in natural or unused areas
* Invasive species prevention and management
* Linking individual wildlife habitat conservation activities together

**Standard Area: Integrated Pest, Disease and Weed Management, and Pesticide Risk Reduction**

Producers make informed decisions regarding pest, disease, and weed management and pesticide/herbicide/fungicide use. They employ cultural and biological prevention strategies to reduce or eliminate the need for chemical applications, and thus minimize negative impacts on the surrounding ecosystem. When chemical applications are needed, they select effective materials with fewer known environmental and health hazards. Producers properly maintain application equipment to ensure precise applications and monitor weather conditions to prevent drift. When combined, these practices create an Integrated Pest/Weed Management (IPM) strategy adapted to local conditions.

### Scored Criteria Address:

* Continuing education for IPM
* IPM planning
* Weather monitoring
* Crop monitoring/production-bed scouting
* Lowest effective application rates/reducing application rates
* Pesticide selection, justification and resistance management
* Pesticide recordkeeping
* Hazardous material storage
* Application equipment calibration and pesticide drift management

## Standard Area: Soil and Water Conservation, Nutrient Management

Producers protect water and soil resources by using methods such as: creating buffer zones along waterways, reducing chemical and sediment runoff, managing animal wastes to prevent ground and/or surface water contamination, managing grazing, and using tillage practices that conserve organic matter and soil aggregation. Producers conserve water by encouraging infiltration and storage of rainfall in the soil and increase irrigation water efficiency through soil moisture monitoring and the use of new irrigation technologies. Producers reduce erosion and protect soils by optimizing plant cover throughout the year, by establishing permanent vegetative cover in orchards and vineyards, by using pastures, rangeland, and rotational grazing, and by selecting tillage technologies that minimize degradation of soil quality.

Producers conserve and recycle nutrients by converting organic wastes into productive uses and by seeking ways to generate nutrients on the operation through such methods as cover cropping, on-site composting, and integrating livestock into nursery production, where appropriate. While chemical fertilizer applications may be necessary to bring soil nutrient levels into proper balance, management practices lead to decreased use of commercial fertilizers over time.

### Scored Criteria Address:

* Continuing education for soil and water conservation
* Stream channel protection and restoration
* Buffer strips around waterways
* Irrigation systems
* Irrigation water conservation
* Nutrient management
* Production area construction and maintenance
* Substrate/media storage and handling
* Soil organic matter management
* Soil erosion prevention
* Tillage selection practices and soil compaction prevention

## Standard Area: Operational Efficiencies

Producers monitor dependence on natural resources for energy and transport, and reliance on materials needed for daily operations on an ongoing basis. Efficiency increases over time. Waste streams are minimized while reuse and recycling of materials is maximized.

### Scored Criteria Address:

* Continuing education for operational efficiencies
* Reuse and recycle
* Energy efficiency
* Low-impact packaging

## Fixed Criterion: No GMO Seeds or Plant Materials

Producers raise crops without using genetically modified seeds or plant materials to avoid risks to human and animal health, the environment, economic wellbeing of farmers, food security, and export markets.

## Fixed Criterion: No Prohibited Pesticides

The Food Alliance Prohibited Pesticide List (PPL) is based on the WHO Recommended Classification of Pesticides by Hazard. The PPL consists of materials classified as extremely hazardous or highly hazardous on the WHO list that are registered for use by the USEPA. Exceptions are allowed if the use of a material on the PPL is required by law or required for export.

## Fixed Criterion: Continual Improvement

Producers are committed to setting goals and assessing their progress toward these goals by monitoring for impacts of decisions on their nursery, family, employees and the environment.