A Review of the Draft Standard for Trial Use

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Establishing a National Sustainable Agriculture Standard
Opening Stakeholder Dialogue
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Presentation Overview

• Development of the Draft Standard
• Purpose and Structure
• Review of Requirements
Development of the Draft Standard
Brief SCS Background

Standards Development, Certification, Testing, Auditing, Training

- Sustainable Agriculture
- Sustainable Forest Management (FSC)
- Sustainable Fisheries Management (MSC)
- Life-Cycle Impact Assessment
- Environmental Product Claims Certification
- Sustainability Procurement Specifications
Trends

Organically Grown

Ethical Treatment of Workers

Locally Grown

Environmental Protection

Food Safety

Sustainably Produced

Corporate Social Responsibility

Where do these trends intersect?
Potential Common Denominators

- Child and Forced Labor
- Workplace Discrimination
- Health and Safety
- Wages
- Working Conditions
- Freedom of Association
- Community Engagement
- Product Safety and Purity
- Product Quality
- Land Management
- Crop Management
- Water Usage
- Energy Efficiency
- Resource Conservation
- Waste Management
- Reduced Carbon Footprint
- Company Ethics
From Cut Flowers and Potted Plants to Draft Sustainable Ag Standard

2003 SCS asked to examine existing sustainable flower labeling programs and provide a Gap Analysis comparing and contrasting these initiatives, including relative strengths and limitations.

2004 Need for a unified, non-proprietary standard for North American market identified. ANSI option identified. VeriFlora draft standard developed for flowers and plants. Pilot projects initiated, and stakeholder input sought.

2005 VeriFlora publicly launched on World Environment Day, with announcement that the standard would be moved to public domain through ANSI process.

Work on provisions for broader sector application ensued. Survey of existing and emerging standards and initiatives conducted, and further expert input sought.

Correlating Initiatives

Ecological Impacts
Water Conservation
Waste Management
Labor Issues
Pest Management
Soil Management
Community Impacts
Energy Efficiency
Carbon Footprint
Packaging Resources
Product Safety
Product Quality

WEAK

STRONG
Factors Considered in Development of the Draft Standard

- Coalesce existing standards, based on goal of attaining significant environmental and social benefits
- Provide clear benchmarks of performance
- Apply a life-cycle lens to avoid hidden trade-offs
- Ensure that requirements are auditable
- Meet public / community expectations
- Set the stage for continuing improvement, whether the standard is used for internal benchmarking, supply chain systems, or certification of public claims
Environmental, Social and Quality Benefits Observed to Date

*Example: Certification of Cut Flowers*

- Increased searches for pest management alternatives, and intensified search for and use of biological control methods (e.g., beneficial insects and fungi).
- Reductions in the use of agrochemicals, resulting in cost savings.
- Increased worker protection (e.g., through ban of WHO 1a and 1b).
- Worker satisfaction resulting in quantifiable reductions in employee turnover.
- Increased worker training (e.g., alternative pest management methods, worker safety).
- Improvements in water management and soil erosion control.
- Increased application of cold-chain management principles and practices to improve product quality.
Purpose, Structure, Intended Uses, Scope and Goals
Purpose

“Establish a comprehensive framework and common set of environmental, social, and quality requirements by which to demonstrate that an agricultural product has been produced and handled in a sustainable manner, from soil preparation and seed planting through production, harvest, post-harvest handling, and distribution for sale.”

- Intended for food, fiber, floral and fuel crops.
- Does not address livestock, dairy, or wild crops.
## Sustainable Agriculture Framework

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Basic Structure

1. Normative references (Section 4) and definitions (Section 5)

2. Core Standard (cross-sectoral)
   - Prerequisites (Section 6)
   - Environmental, Social and Product Integrity Requirements
     Addresses producers (Section 7-14), handlers (Section 15-18), and processors (Section 19)

3. Sector-Specific Annexes

4. Two-tiered approach to provide incentive for improvement
   - Tier 1: Minimum sustainability performance
   - Tier 2: Best practices

5. Certification Appendix
Conformity Requirements

Section 3

**Tier 1**
All “critical requirements” + 90% of remaining requirements.

**Tier 2**
Tier 1 conformity + 80% of Tier 2 requirements.

Can apply to an entire Agricultural Production Operation or Handling Operation or a portion of that operation.
Intended Uses

- Guide internal benchmarking and improvement
- Support supply chain management / scorecards
- Support public claims through certification
- Establish a reference benchmark
Scope: Establish practices that...

- Build and maintain a healthy agro-ecosystem, based on healthy soil structure and functioning.
- Preferentially employ biological, mechanical, and cultural methods to control pest and disease vectors.
- Phase out use of agrochemicals that pose acute or chronic health risks or ecotoxic risks, moving toward organic practices.
- Establish minimum acceptable benchmarks to protect edible crops from food pathogens.
- Yield products with high nutritional value and meet national organic standards for purity in terms of pesticide residues/contaminants.
Scope: Establish practices that...

- Protect the surrounding ecology, including high ecological value habitats/species, waterways, riparian/wetland habitats.
- Minimize overall packaging while maintaining the quality and appearance of the product.
- Progress toward the most energy efficient methods for growing, transporting and handling crops.
- Attain maximum carbon storage level per hectare while retaining overall productivity and yields.
- Establish a safe, equitable workplace, and establish productive engagement with the surrounding community.
- Minimize packaging resource use through reducing, recycling, and re-use of packaging materials.
Goals

- Provide a uniform standard and assessment matrix for evaluating sustainability performance.
- Encourage the agricultural sector to implement best practices in terms of environmental, social and quality performance.
- Stimulate continuing improvement and innovation in agricultural production practices.
- Enhance agro-ecosystem structure and functioning, leading to increased terrestrial carbon sequestration in soils by up to 25% over the next 25 years.
- Increase the overall energy efficiency of agricultural systems by up to 30% by 2025.
- Reduce net greenhouse gas emissions from agricultural systems, including production, distribution and sales, by up to 30% by 2025.
Goals

- Encourage and increase local bioregional production and consumption of agricultural products.
- Encourage an optimal balance in the use of arable lands for the production of food, fiber and biofuel crops.
- Raise public awareness about the significant sustainability issues and solutions associated with agricultural crop production, and to stimulate consumer purchases that reinforce sustainable agricultural production and handling.
Review of Requirements
Prerequisites (Producers)

Compliance with Country Regulations

Agricultural Production Plan
- Crop information
- Farm information
- Prior land use
- Production steps
- Pest/disease management
- Agroecosystem health

- Ecosystem management
- Carbon sequestration
- Energy use
- Quality Management
- Traceability practices
- Recordkeeping

Traceability / Chain-of-custody
- Registry conformant products
- Product identification
- Shipment tracking records

- Physical separation
- Prohibition of filling orders with non-conformant products
Prerequisites (Handlers)

Compliance with Country Regulations

Handling Plan
- Process steps
- Pest/disease management
- Quality Management
- Traceability practices
- Recordkeeping

Traceability / Chain-of-custody
- Registry conformant products
- Order taking and filling
- Lot number on shipping docs
- Physical separation
- Prohibition of filling orders
- Mass balance of
- Product ID and shipment
  conformant products
- Tracking records
- Product List
Sustainable Crop Management

Pest/Disease Management
- Apply least toxic pest and disease management and control systems.
- Ban WHO 1a and 1b pesticides.
- Simplified procedures for certified organic companies.
- Integrate organic practices as proven practical, with organic conversion timeframes determined per crop/ region.
- Phase out use of synthetic-botanical pesticides with known health/eco-toxic risks, based on risk assessment matrix.

Agro-Ecosystem Health: Soil Fertility, Soil Conservation and Erosion Control, and Soil Quality and Functional Biodiversity
- Maintain or improve functional biodiversity, as well as the physical, chemical, and biological condition of the soil, in a manner that minimizes soil erosion, and does not contribute to contamination of crops, soil, or water by plant nutrients, pathogens, heavy metals, or residues.
- Conversion over time to organic soil enhancement and fertility practices to enhance soil fertility, conservation and erosion control, biodiversity protection, and plant nutrition.

Crop Mgmt: Varieties, Cultivars, Seedstocks, Planting Patterns
- Optimize the use of varieties, cultivars and seedstocks, without compromising other aspects of conformance.
Ecosystem Protection

Habitat Management/Protection

- Establish practices that minimize effects on natural ecosystems, protecting regional habitats and species through measures such as the institution of adequate buffer zones and use of native plants.
- Avoid adding any contaminant substances to the environment that could affect natural ecological processes, with appropriate monitoring systems in place.

Mitigation and Set-asides

- Ameliorate or remediate any ecological damage caused — for example, as a result of clearing land for cultivation or development of infrastructural or other operational support mechanisms— either through habitat restoration or other forms of remediation, or through off-site” compensatory actions as land set-asides.
Resource Conservation and Energy Efficiency

**Water Resource Management**
Conserve water through use of:
- Effective water delivery systems
- Conservation and monitoring methods and technologies
- Institution of water quality management practices

**Energy Resource Management**
- Monitor energy consumption
- Pursue increased energy efficiency in the production, handling and transport of agricultural products
- Calculate the energy / greenhouse gases per agricultural production unit
- Institute practices over time that improve energy efficiency, increase carbon storage and reduce greenhouse gases

**Packaging Resources**
Minimize the resources used for product packaging, and associated impacts, without compromising product integrity, such as through:
- Reduction of packaging components
- Use of packaging materials made with recycled content
- Reuse of packaging materials
- Sourcing of packaging materials from sustainable sources
Integrated Waste Management

Management of Agrochemical and Other Hazardous Chemicals and Wastes
Implement pollution prevention practices/procedures that:

- Prevent agrochemical and other hazardous chemical run-off or contamination from agricultural production sites into environment.
- Minimize effects to human health and the environment from agrochemical use and other hazardous materials.
- Ensure proper disposal or recycling of hazardous chemicals and their containers.

Crop Residue, Product Waste and Other Non-Chemical Waste Management
Minimize crop residues, product waste and other non-chemical wastes through practices such as:

- Recycling.
- Composting.
- Institution of second harvest programs for edible crops.
Fair Labor Practices

Hiring and Employment Practices
- Hiring, wages and non-discrimination.
- Working hours and overtime.
- Freedom of association, right to organize and collective bargaining.
- Vacation and sick leave.
- Prohibition of child and forced labor.

Workplace Conditions
- Access to housing, potable water and sanitary facilities.
- Worker training.
- Occupational health and safety.
- Human resources management.

Worker and Worker Family Access to Services
- Access to education.
- Access to health services.
- Access to transportation.
Community Benefits

Addressing Local and Regional Community Impacts
- Assess impacts the surrounding community.
- Seek cooperative strategies for minimizing such impacts.

Providing Local and Regional Community Support
- Develop policies to benefit the surrounding community in terms of local hiring, procurement, and infrastructure maintenance.

Economic Viability
- Demonstrate financial viability.
Product Quality

Quality, Appearance and Grade
- Adhere to recognized appearance and grading criteria.
- Institute storage and shipping practices to protect quality.

Product Loss
- Monitor the extent of product losses in production, storage, and shipment.
- Take quality assurance measures to minimize such losses.
Product Safety / Purity

**Food Safety (Edible Crops Only)**
- Written food safety management procedures
- Undergo third-party GAP/GMP food safety management audits, meeting minimum score of 80 on 0-100 scale.
- Written emergency procedures for product quarantine, recall, client notification, confirmation testing, source investigation, correction action steps.

**Contaminant Residue Management**
For Edible crops, ensure that:
- Residues of any pesticide registered for use do not exceed the levels permitted under the USDA NOP (5% of US EPA tolerances).
- Residues of any metals, industrial chemical contaminants, drug and chemical residues and natural toxins conform to US FDA standards.

For Non-Edible crops, ensure that:
- At the time of product shipment or handling, no topical residues at levels that could cause a health risk from dermal transfer.
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