

# VERIFLORA CERTIFICATION REQUIREMENTS FOR RESPONSIBLE HORTICULTURAL PEAT MOSS PRODUCTION AND HANDLING

February 2011

## Sector Specific Annex to the VeriFlora® Certification Standard For Sustainably Grown Cut Flowers and Potted Plants

### I. Purpose and Scope of the Annex

#### **I.1. Purpose**

This Annex is intended to be used in conjunction with the VeriFlora Certification Standard (the “Standard”)<sup>1</sup> to identify and encourage responsible production practices and to stimulate continuing improvement in the peat moss industry. It defines those critical requirements of the Standard (see Section IV below) and additional sector-specific requirements to which peat moss producers and handlers must conform in order to qualify for certification.

#### **I.2. Sector-Specific Goals**

Together, these requirements are intended to support the horticultural peat moss industry and users of horticultural peat moss in achieving the following goals:

To restore carbon accumulating wetland ecosystems;

To reduce the environmental footprint in peat moss production;

To stimulate innovation;

To establish a path for continuing improvement;

To favor horticultural and other biological uses of peat moss; and

To support cost-effective uses of value-added by-products that result in the reduction of greenhouse gas emissions.

### II. References

1. Cleary, J., N. T. Roulet, and T. R. Moore. 2005. *Greenhouse Gas Emissions from Canadian Peat Extraction, 1990-2000: A Life-Cycle Analysis*. *Ambio* 34 (6): 456-461.
2. Environmental Protection Agency. 2007. *National Pollutant Discharge Monitoring System*. <http://cfpub.epa.gov/npdes/>

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<sup>1</sup> [http://www.scs-certified.com/docs/VeriFlora\\_Version3\\_0407F.pdf](http://www.scs-certified.com/docs/VeriFlora_Version3_0407F.pdf)

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3. Health Canada. Natural Health Products *Directorate*. 2006. *Good Manufacturing Practices Guidance Document*. Ministry of Health, Ottawa. 36 pages.
4. Joosten, H. and Clarke, D. 2002. *Wise Use of Mires and Peatlands. Background and Principles Including a Framework for Decision-Making*. International Mire Conservation Group and International Peat Society, Finland. 305 pages.
5. Okruszko, T., E. Multby, J. Szathlowics, D. Swiatek, and W. Kotowski, Eds. 2006. *Wetlands - Monitoring, Modeling, and Management*. Taylor & Francis. New York. 356 pages.
6. Provincial Government of New Brunswick, Natural Resources. 2010. *Peat mining Policy. (MRE-004-2005)*. 13 pages.
7. Provincial Government of Quebec, Ministère du Travail. *Code du travail du Québec. (L.R.Q., c. C-27)*.
8. Quinty, F. and Rochefort, L. 2003. *Peatland Restoration Guide, Second Edition*, Canadian Sphagnum Peat Moss Association. 106 pages.
9. Silvius, M. and Diemont, H. 2007. *Climate Change, Poverty, Biofuels, and Pulp Deforestation and Degradation of Peatlands*. *Peatlands International 2*: 32-34.
10. Wildlife Conservation Branch, *Canadian Wildlife Service; Environment Canada*. 1996. *The federal policy on wetland conservation implementation Guide for federal land managers*. 33 pages.

### **III. Terminology**

*This section defines additional sector-related terms not already defined in the Standard.*

**Buffer Zone:** A strip of land surrounding the harvest area with conserved or enhanced habitat designed to mitigate the effects of peat harvesting operations on the neighboring areas, including HEVs, wetlands and riparian zones.

**Carbon Offset:** The act of reducing or eliminating greenhouse gas emissions (GHG) in one place in order to “offset” GHG emissions occurring elsewhere.

**Diaspore:** Reproductive sections or parts of a plant, such as seeds and spores (i.e., the seeds of mosses), roots, stems, leaves, branches, etc.

**Donor Site:** A designated area of the peatland assigned specifically for collecting Sphagnum moss or other plant material(s) to be used for restoration activities described in the Rehabilitation Plan.

**Ecological Restoration:** The goals and activities specific to the Rehabilitation Plan.

**Greenhouse Gases:** As used in the Standard and this Annex, greenhouse gases refers to any

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climate forcer, such as any gas, particulate, aerosol or other substance that is associated with radiative forcing, either positive or negative.

**Handler:** The legal entity responsible for the chain of custody of certified peat or peat-based products, including storing, processing, blending, packaging, and distributing to users. The Handler is not a producer and does not own, administer or harvest peatlands.

**High Ecological Value (HEV) Areas:** Those areas of bogs and fens that possess one or more of the following attributes:

- a) areas containing globally, regionally or nationally significant concentrations of biodiversity (e.g., rainforest);
- b) areas that are in or contain rare, threatened or endangered ecosystems;
- c) areas that provide basic services of nature in critical situations (e.g., watershed protection or erosion control);
- d) areas fundamental to meeting the basic needs of local communities (e.g., health);
- e) areas critical to local communities' traditional cultural identity (areas of significance identified in cooperation with such local communities); and
- f) areas that contain threatened or endangered species.

**Humification:** The process by which organic matter decomposes to form humus.

**Peat:** Sedentarily accumulated material consisting of at least 30% (dry weight) dead and partially decomposed organic material. Also, a heterogeneous mixture of more or less decomposed plant (humus) material that has accumulated in a water-saturated environment and in the absence of oxygen.

**Peatland:** An ecosystem dominated by moss species, especially *Sphagnum*, as the principle life form, and in which the production of biomass exceeds its decomposition, resulting in the accumulation of organic matter from plant debris. Also, an area with or without vegetation, with a naturally accumulated peat layer at the surface.

**Peatland Rehabilitation:** The rebuilding of ecosystem structure and processes such as productivity and environmental services, that may or may not involve the re-establishment of the pre-existing biotic integrity in terms of species composition and community structure.

**Peatland Restoration:** The process of assisting in the re-creation over time of a peatland with wet conditions dominated by sphagnum mosses or other vegetal species representing the original flora of the site.

**Peat Moss:** A type of peat consisting primarily of various mosses of the genus *Sphagnum*, accumulating in wetlands, in particular peatlands.

**Peat Moss By-Products:** Roots, wood, dust, peat moss sift residues and other low-value or non-horticultural products.

**Peat Moss Production Plan:** The written document that describes the Producer's policies and

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procedures for managing peatlands and harvesting peat moss in a manner sufficient to ensure conformance to the certification requirements of this Annex.

**Peat Moss Handling Plan:** The written document that describes the Handler's policies and procedures for handling peat moss products in a manner sufficient to ensure conformance to the certification requirements of this Annex.

**Peat Moss Products:** A number of individual products derived from peat moss that can be packaged and commercially marketed or blended with other material to create media for planting or growing plants and for other biological and biomechanical uses.

**Producer:** The Producer is the legal entity responsible for the harvesting and rehabilitation of peatlands and the production of peat moss product(s). A Producer may also be involved handling functions, including product packaging, blending and shipping operations.

**Progress Requirement:** A requirement for continued certification to be met by the Producer or Handler within a time period specified in this Annex.

**Rehabilitation Plan:** A plan that outlines bog rehabilitation activities to be undertaken including restoration, rewetting, wetland and wildlife management, tree and shrub planting, and other means of ecological rehabilitation. The Rehabilitation Plan is based on consensus and reflects the international Wise Use principles and other relevant guidelines [Ref. 4].

**Sphagnum Farming:** The cultivation of *Sphagnum* sp. mosses from peatlands.

**Shall:** The term shall used throughout this document indicates a mandatory requirement.

**SOP:** Standard Operating Procedure.

**Stakeholder:** Any person, organization, company or other party interested in or concerned with peatland management and the handling and use of peat and peat-related products.

**Threatened or Endangered Species:** Flora or fauna species that have been listed as threatened or endangered by the legal provincial jurisdiction within which peat moss harvesting is being conducted, as well as in international listings, such as the Red List of the International Union for the Conservation of Nature.

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**IV. Conformance**

As described in Section 3.0 of the Standard, the Producer or Handler shall:

- Conform with 100% of the Prerequisites (Section 6) and Critical Tier 1 Requirements of the Standard, taking into account those requirements deemed only conditionally applicable or non-applicable, as designated below;
- Conform with 100% of the Critical Requirements of this Annex (designated below); and
- Conform with at least 90% of the total applicable Standard and Peat Moss Annex Tier 1 Requirements.

The critical requirements of this Annex, the conditionally applicable requirements of the Standard and the non-applicable requirements of the Standard are identified below.

**IV.1. Critical Requirements of this Annex**

Producers and Handlers shall be responsible for conformance to the following requirements of this Annex (Table 1).

<b>Table 1. Critical Requirements of this Annex</b>	
<i>Producer Section</i>	<i>Handler Section</i>
V.1.1.1.	VI.1.1.1.
V.1.1.2.	VI.2.2.1.
V.1.2.1.	VI.2.2.2.
V.1.2.2.	VI.2.2.3.
V.1.2.3.	VI.2.2.4.
V.1.2.4.	VI.3.2.1.
V.1.2.5.	VI.3.2.2.
V.1.2.8.	VI.4.2.1.
V.2.2.1.	VI.4.2.2.
V.3.2.1.	VI.5.1.1.
V.3.2.2.	VI.6.2.1.
V.3.2.3.	VI.6.2.2.
V.4.2.1.	VI.6.2.3.
V.4.2.2.	
V.5.2.1.	
V.6.1.1.	
V.6.2.1.	
V.7.1.1.	
V.7.2.1.	
V.7.2.2.	
V.7.2.3.	

**IV.2. Conditionally Applicable Requirements of the Standard**

Producers and Handlers shall be responsible for conformance to the following requirements in the Standard under the conditions described in Table 2.

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<b>Table 2. Conditionally Applicable Requirements of the Standard</b>	
<b><i>Producer Section</i></b>	<b>Conditions under which conformance is required</b>
6.1.2.	No information for crop pest/disease management or agro-ecosystem health is required. See Terminology for Peat Moss Production Plan.
7.1	Pest and disease management information will be provided for the synthetic or organic inputs used in the establishment and maintenance of the Producer's rehabilitation areas.
7.2.1.1. to 7.2.1.3.	If media mixes involve organic or synthetic materials with moderate or greater risk to the environment, the Producer shall demonstrate that their operations do not discharge these materials from the blending/product mixing facilities to the environment. Producers that apply fertilizer(s) as part of the Rehabilitation Plan are required to describe the methods and materials used.
8.1.1 to 8.1.6.	Specific requirements for peatland habitat management and protection are provided in this Annex.
9.1.	Specific Requirements for peatland drainage, rehabilitation, and water quality monitoring are provided in this Annex.
9.3.2.	Requirements 9.3.2.1 and 9.3.2.2. are considered Progress Requirements to be fulfilled within 1 year of certification.
10.1.1.2 to 10.1.1.3.	These requirements refer to hazardous materials, not specifically pesticides and other agrochemicals.
11.2.2.1.b.	Reference to non-discrimination, sexual harassment and workplace conditions, including safety and hygiene only.
11.2.2.1.e.	Applicable only to operations that produce custom or commercial media with additives which must retain MSDS by law, or otherwise require safety policies to avoid dermal contact or inhalation that may be hazardous to workers and their families.
12.3.1.3.	Technological innovations and adaptations include, but are not limited to, new product development and periodic review of techniques, such as block harvesting.
<b><i>Handler Section</i></b>	<b>Conditions under which conformance is required</b>
6.2.	See Reference for Peat Moss Handling Plan.
15.1.1.6.	Only applicable to Handlers seeking Tier 2 certification.
15.3.1.5.	Waste management includes containerized and non-containerized materials used in manufacturing and distribution of products.
16.1.1.4.	All potentially hazardous materials used in product mixes and in manufacturing are covered.

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**IV.3. Non-Applicable Requirements of the Standard**

Producers and Handlers are not obliged to conform to the following requirements in the Standard, which are not applicable to peat moss Producers and Handlers:

<b>Table 3. Non-Applicable Requirements of the Standard</b>	
<b><i>Producer Section</i></b>	<b><i>Handler Section</i></b>
7.2.1.5	17.1.
7.3.	17.2.1.
8.1.6.2.b.	18.2.3.1.n.
9.2.1.5.	
10.2.1.2.c.	
13.1.	
14.1	
14.2	

## **V. Producer Requirements**

### **V.1. Responsible Peatland Management**

#### **V.1.1. Tier 1 Requirements: Responsible Peatland Management**

##### **V.1.1.1. Legal Compliance<sup>2</sup>**

- a. The Producer shall submit a legally binding permit and/or certificate approved by the local or regional authorities and shall comply with all binding laws and governmental regulations;
- b. The Producer shall demonstrate legal tenure for the land and legal permission for peatland harvesting; and
- c. The Producer shall demonstrate compliance with payment of all taxes, royalties, or fees associated with its permit.

##### **V.1.1.2. Peat Moss Production Plan<sup>3</sup>**

The Producer shall establish a plan wherein it shall describe its policies and procedures for peatlands management and peat moss harvesting. The Plan shall include, at a minimum:

- a. Management objectives;<sup>4</sup>
- b. Description of the peat moss resources;
- c. Description of harvesting techniques;
- d. Mapping of all past, present and future harvesting areas, access roads, and drainage ditches;
- e. Mapping of the boundaries of the buffer zones, donor sites and all HEV areas;
- f. Estimation of total harvestable peat for each mapped harvested area; and
- g. Annual harvest volumes for each mapped harvested area.

##### **V.1.1.3. Air Quality Management**

The Producer shall be proactive during peatland harvesting activities to limit the impacts on air quality.

#### **V.1.2. Progress Requirements: Responsible Peatland Management**

##### **V.1.2.1. Environmental Context of Production Operation (*within 1 year of initial certification*)**

The Producer shall provide maps and information on the environmental context of its operations, addressing the following elements, at a minimum:

- a. Production area boundaries, including at least a 0.25 km. border surrounding the area of operation and a legend illustrating the major ecological and anthropogenic features;

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<sup>2</sup> Specific regulatory requirements may apply [Refs. 2, 6, 7, and 10].

<sup>3</sup> The Certification Body will provide the Producer with an electronic document that includes these requirements and other requirements of the standard. See section III, "Terminology" for Peat Moss Production Plan.

<sup>4</sup> The Producer should take into consideration "wise use" decision-making values and framework in planning for new peatland and mire harvesting areas [Ref. 4].

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- b. HEV area(s), including non-exploited peatlands, designated within the Producer's area of operation, ponds, lakes, streams and rivers;
- c. Buffer zones;
- d. Surface and groundwater sources, including, but not limited to functional, non-functioning, and proposed drainage ditches;
- e. Air quality concerns;
- f. Potential nuisance problems for neighbouring communities; and
- g. Other cultural activities that affect or could affect the environment of the Operation.

**V.1.2.2. Rehabilitation Plan (*within 1 year of initial certification*)**

- a. The Producer shall establish a Rehabilitation Plan for all harvested areas following cessation of harvesting activities. For peatlands opened in 2000 or later, restoration<sup>5</sup> or Sphagnum farming is required. Other rehabilitation techniques may be allowed for older peatlands. The plan shall include, at a minimum:
  - i. The goals for the rehabilitation;
  - ii. Clear argument supporting the choice or choices of the rehabilitation goals;
  - iii. Description of practices and procedures used to ensure rehabilitation success;
  - iv. Timetable for bog closures;
  - v. Timetable and methods for rehabilitation; and
  - vi. Estimated yearly costs of establishment and final costs for rehabilitation for each planned area.
- b. The Producer shall demonstrate that it has established a donor site or sites representing at least 10% of the peatland harvested areas.
  - i. The donor site area requirements may not include the HEV areas.
  - ii. The donor sites and sphagnum farming can be included in the buffer zones.
  - iii. Donor sites must provide diaspores in sufficient quantity and viability.
- c. The Producer shall demonstrate compliance with the Rehabilitation Plan three years following cessation of peat harvesting.
  - i. Progress towards compliance shall be documented at least annually, demonstrating that the majority of the area(s) targeted for rehabilitation or ecological restoration are improving.
  - ii. Compliance with the Rehabilitation Plan shall be demonstrated prior to the end of the certification period, as stipulated in the timetables of the Plan.
- d. The Producer shall demonstrate that personnel in charge of rehabilitation activities are qualified to carry out their responsibilities.

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<sup>5</sup> Restoration includes both the reestablishment of peatland vegetation species and the rewetting of harvested sites by stabilizing and raising the water table [Page 22, Ref. 8].

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**V.1.2.3. Monitoring of Non-exploited Peatlands Designated as Buffer Zones, Donor Sites and HEV Areas (*within 2 years of initial certification*)**

The Producer shall assess the status of non-exploited peatlands designated as buffer zones, donor sites and HEV areas at least every five years.

- a. The Producer shall provide a description of monitoring techniques, including detailed maps of sampling sites of donor sites and HEV areas.
- b. The Producer shall demonstrate through monitoring that the donor sites indicated in the Rehabilitation Plan are viable and provide sufficient diaspores needed for restoration in accordance with the timetable established in the Rehabilitation Plan.

**V.1.2.4. Drainage Plan and Hydrology (*within 1 year of initial certification*)**

- a. Prior to bog opening, the Producer shall develop a drainage plan that takes into account future needs for restoration, rehabilitation, and the surrounding wetland environment.
- b. For existing bogs, the Producer shall develop a drainage plan that serves as a primary technical aid in the design and implementation of Rehabilitation and Water Quality Management Plans.

**V.1.2.5. Water Quality Management (*within 2 years of initial certification*)**

- a. The Producer shall establish a Water Quality Management Plan (WQMP) for all areas. The WQMP shall be used in conjunction with Requirements V.1.2.1, V.1.2.2, V.1.2.3 and V.1.2.4 of this Annex. The Plan shall include at least the following:
  - i. Water quality goals for each bog;
  - ii. Concrete strategies to mitigate the operational impacts on water quality;
  - iii. Clear argumentative support for the choice or choices of the mitigation strategies for each bog;
  - iv. Flow diagram and description of practices and procedures used to ensure that water quality goals are achievable;
  - v. Timetable and methods for achieving water quality goals for each bog;
  - vi. Written water quality monitoring policies; and
  - vii. Estimated yearly costs for the establishment and maintenance of the water quality program for each bog.
- b. The WQMP shall include written design and operational criteria for mitigating the operational impacts on water quality, including methods such as sediment basins and overland flow.
- c. The Producer shall demonstrate that its personnel are qualified to carry out their responsibilities in accordance with the Water Quality Management Plan.
- d. The Producer shall initiate water quality monitoring prior to bog opening, continue monitoring during the harvesting time period, and monitor the water quality at decreasing intervals over the life cycle of the peatland, commensurate with the achievement of the goals.
- e. The Producer shall maintain auditable records of water quality monitoring that are based upon a written protocol for water sampling and analysis. The

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sampling protocol(s) shall emphasize more frequent sampling at the opening of the bog and a reduced sampling frequency commensurate with water quality improvements over successive years.

**V.1.2.6. Weed Control in the Harvested Area (*within 1 year of initial certification*)**

The Producer shall develop and implement written weed control policies and procedures that contain at least the following elements:

- a. Monitoring for detection of weeds; and
- b. Mechanical weed controls.

**V.1.2.7. Air Quality Management (*within 2 years of initial certification*)**

The Producer shall develop and implement written air quality management policies and procedures in order to limit the impacts on air quality during peatland harvesting activities. At a minimum, these policies and procedures shall address the following elements:

- a. Particulate matter controls in the plant and in the fields;
- b. Air quality monitoring procedures (meeting local or regional current regulations, as applicable); and
- c. Where real or perceived public impacts have been noted, a written program with SOPs shall be instituted for operators.

**V.1.2.8. Fire Prevention and Emergency Procedures (*within 1 year of initial certification*)**

The Producer shall develop and implement written fire prevention and emergency contingency policies and procedures for protecting peatland resources from fire. At a minimum, these policies and procedures shall address:

- a. Goals for peatland protection;
- b. Identification and training of human resources in case of a fire event;
- c. Measures to limit the risk of fire (e.g., equipment inspection, water storage, checking wind speed at harvesting, and public awareness);
- d. Procedures for monitoring the temperatures of harvested peat to avoid spontaneous combustion;
- e. An assessment of the area effectively covered by the fire prevention policies and procedures; and
- f. Description of the utilization of fire fighting resources, including but not limited to:
  - i. Access roads;
  - ii. Water sources;<sup>6</sup>
  - iii. Human resources;
  - iv. Firefighting equipment;
  - v. Communications;
  - vi. Emergency preparedness; and
  - vii. Community and/or regional interagency cooperation.

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<sup>6</sup> Water sources on managed peatlands shall be identified and reported.

### **V.1.3. Tier 2 Requirements: Responsible Peatland Management**

#### **V.1.3.1. Drainage and Hydrology**

- a. The Producer shall design and implement a geographic information system, such as stakes, driven poles or other survey benchmarks to facilitate the implementation of the WQMP and drainage procedures. Detailed topographic maps may also be prepared to assist in the design and implementation of the hydrology planning with a network of GPS-referenced benchmarks.
- b. The Producer shall keep auditable hydrologic records.<sup>7</sup>
- c. Design criteria for restoration shall reference and utilize the hydrological monitoring data.

#### **V.1.3.2. Water Quality Management Plan**

Currently there are no additional sector-specific Tier 2 Requirements.

#### **V.1.3.3. Mechanism for Voluntary Financial Contribution**

The Producer shall demonstrate a voluntary mechanism for financially contributing to the implementation of future rehabilitation plans.

#### **V.1.3.4. Fire Prevention from Natural and Anthropogenic Sources**

- a. The Producer shall document the historic fire regime of its peatland managed areas, including but not limited to fire frequency, areas burned, and the fire effects on natural resources.
- b. The Producer shall conduct periodic or continuous stage measurements of surface and piezometric water elevations in representative natural areas adjacent to harvested peatlands where fire is prevalent.<sup>8</sup>

## **V.2. Ecosystem Conservation and Protection**

### **V.2.1. Tier 1 Requirements: Ecosystem Conservation and Protection**

The Tier 1 Requirements for this section are covered in the Responsible Peatland Management requirements.

### **V.2.2. Progress Requirements: Ecosystem Conservation and Protection**

#### **V.2.2.1. Contaminant Discharges (*within 1 year of initial certification*)**

The Producer shall develop and implement written policies and procedures for identifying and tracking its principle sources of contaminants (e.g., vehicular maintenance, unscheduled maintenance due to breakdowns, organic matter leachates).

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<sup>7</sup> Examples may include the monitoring of water table fluctuations during the months of both peak and minimal flow.

<sup>8</sup> The hydrological context for natural and anthropogenic fire occurrences in peatlands, including but not limited to temperate, subtropical and tropical wetlands, must be carefully assessed.

### **V.2.3. Tier 2 Requirements: Ecosystem Conservation and Protection**

#### **V.2.3.1. Contribution to Conservation and Protection**

The Producer shall demonstrate a voluntary mechanism for establishing conservation areas, or shall make financial contributions to fire management planning in the inter-urban areas outside of their working circle.

### **V.3. Resource Conservation and Energy Efficiency**

#### **V.3.1. Tier 1 Requirements: Resource Conservation and Energy Efficiency**

Currently there are no additional sector-specific Tier 1 Requirements.

#### **V.3.2. Progress Requirements: Resource Conservation and Energy Efficiency**

##### **V.3.2.1. Energy Efficiency (*within 1 year of initial certification*)**

The Producer shall develop written protocols and procedures to reduce energy consumption in operations (e.g., fuel, electricity, transportation), including energy efficiency targets and timetables. If by-products are used as a strategy to reduce greenhouse gas emissions, then auditable documentary evidence demonstrating this reduction in emissions shall be provided.

##### **V.3.2.2. Greenhouse Gases (*within 2 years of initial certification*)**

- a. The Producer shall assess the greenhouse gases of its operations and develop reduction goals, with timetables for implementation.
- b. The Producer shall publish its policies regarding the greenhouse gas emissions and provide a publically available summary of its operations and proposed reduction goals.

##### **V.3.2.3. Packaging Resource<sup>9</sup> Minimization Annual Report (*within 1 year of initial certification*)**

- a. The Producer shall provide a quantitative annual report detailing the volumes or weights of packaging materials used.
- b. The Producer shall indicate the amounts of recyclable, compostable, re-usable, or not, and the degree to which these volumes or weights comply with established goals in their Peat Moss Production Plan.

#### **V.3.3. Tier 2 Requirements: Resource Conservation and Energy Efficiency**

##### **V.3.3.1. New and Emergent Technologies**

The Producer shall demonstrate the usage of effective new technologies that improve operational efficiencies and/or reduce the environmental footprint.

### **V.4. Integrated Waste Management**

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<sup>9</sup> Packaging wastes include an estimate of those materials that the downstream end user will landfill, re-use or recycle. These materials are not those wastes that are generated in the production and packaging of products, which are considered in the Integrated Waste Management requirements.

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**V.4.1. Tier 1 Requirements: Integrated Waste Management**

Currently there are no additional sector-specific Tier 1 requirements.

**V.4.2. Progress Requirements: Integrated Waste Management**

**V.4.2.1. Integrated Waste Management Annual Report (*within 1 year of initial certification*)**

The Producer shall provide a quantitative annual report detailing the volumes or weights of residual materials,<sup>10</sup> industrial, construction, and other production wastes that are recycled, re-used, and/or sent to landfill, and the degree to which these levels comply with established goals.

**V.4.2.2. Disposition of Residual Materials (*within 2 years of initial certification*)**

- a. The Producer shall develop written policies and procedures to minimize the residual materials sent to landfill, including identification of opportunities to re-use and recycle residual materials.
- b. The Producer shall identify quantitative goals and timelines for compliance, with results to be reported annually.

**V.4.3. Tier 2 Requirements: Integrated Waste Management**

Currently there are no additional sector-specific Tier 2 requirements.

**V.5. Fair Labor Practices**

**V.5.1. Tier 1 Requirements: Fair Labor Practices**

Currently there are no additional sector-specific Tier 1 Requirements.

**V.5.2. Progress Requirements: Fair Labor Practices**

**V.5.2.1. Occupational Health and Safety (*within 1 year of initial certification*)**

The Producer shall institute a Safety Committee which provides an assessment of workplace hazards, establishes a hazard risk rating for all jobs, and develops a written job hazard policy with standard operating procedures.

**V.5.3. Tier 2 Requirements: Fair Labor Practices**

Currently there are no additional sector-specific Tier 2 requirements.

**V.6. Community Benefits**

**V.6.1. Tier 1 Requirements: Community Benefits**

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<sup>10</sup> Residual materials include but are not limited to small branches, roots, perlite dust, plastic, and pallets.

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**V.6.1.1. Economic Viability; Efficient Utilization of By-Products**

The Producer shall maintain an auditable registry of peat moss by-products sold or utilized in its operations on-site or off-site.

**V.6.2. Progress Requirements: Community Benefits**

**V.6.2.1. Community Engagement (*within 1 year of initial certification*)**

The Producer shall conduct at least one meeting with community representatives per year, and shall document all meetings held with community representatives, and make such documentation available to the public. This documentation shall include:

- a. A published agenda, publicly available, which shall include, at a minimum:
  - i. Key aspects of the Producer's work plan for the coming year;
  - ii. Discussion of public concerns related to current operations or to the upcoming work plan;
  - iii. Discussion of community opportunities; and
  - iv. Annual fire and emergency preparedness.
- b. A summary of past commitments;
- c. Meeting minutes; and
- d. Auditable records of such meetings, maintained for at least five years.

**V.6.3. Tier 2 Requirements: Fair Labor Practices**

Currently there are no additional sector-specific Tier 2 requirements.

**V.7. Product Quality**

**V.7.1. Tier 1 Requirements: Product Quality**

**V.7.1.1. Recordkeeping**

The Producer shall provide auditable records related to its current product quality assurance practices.

**V.7.1.2. Packaging, Labeling and Shipping**

The Producer shall develop minimum specifications for packaging and labeling of its peat moss product(s), including but not limited to the following elements:<sup>11</sup>

- a. Material Content: Product contents shall be accurately represented and labeled;
- b. Packaging: The product shall be packed, wrapped and presented in such a manner as to protect it from mechanical damage;
- c. Accompanying Information: Instructions, recommendations and warnings (as applicable) shall be provided along with the product for use in retail sales, in accordance with current provincial and federal regulations;
- d. Weight and measurement: The product shall comply with applicable

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<sup>11</sup>Specifications must be determined by using the recognized testing methods according to current standards, regulations and/or laws. Products sold in bulk are not bound by this requirement.

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- regulations; and
- e. Shipping Documents: The product must conform to international shipment requirements (e.g., Canadian and USA).

**V.7.1.3. Contamination**

- a. The Producer shall demonstrate effective measures to reduce or avoid contamination of its peat based product(s) throughout the process.
- b. The Producer shall separate and discard all contaminated material.
- c. If sales or customer records indicate product contamination has occurred at any of the Producer's sites, then the Producer shall identify any sources of contamination and maintain a corrective action log for three years.

**V.7.2. Progress Requirements: Product Quality**

**V.7.2.1. Quality Management System (*within 1 year of initial certification*)**

The Producer shall design, document, implement, and maintain a Quality Management System including but not limited to the following:

- a. A written Quality Manual that includes:
- i. Process steps, their sequences and interactions, including justifications for any exclusions;
  - ii. The criteria and/or methods needed for effective operation and control of such processes;
  - iii. Procedures for implementation, maintenance and documentation of the QMS;
  - iv. Record-keeping procedures;
  - v. Procedures for controlling documents and records; and
  - vi. A Quality Policy (appropriate to the purpose, size, and complexity of the Producer's operation).
- b. Monitoring and analysis of the processes addressed in the Quality Manual to determine conformance with procedures, identify opportunities for continuous improvement, and identify preventative and corrective actions needed.
- c. Demonstration of management commitment to the QMS, including:
- i. Assignment of a management representative to take primary responsibility for the QMS and VeriFlora;
  - ii. Designation of management responsibilities and chain of command in the development, review, update and approval of QMS procedures; and
  - iii. Provision of resources and information needed to support the QMS.

**V.7.2.2. Product Integrity (*within 1 year of initial certification*)**

The Producer shall develop product specifications and document that its products meet these specifications. Documentation shall include:

- a. Auditable records of the ingredients used in mixes; and
- b. Methods to ensure that the quality of the mixes for professional growers meets client expectations.

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**V.7.2.3. Customer Service (*within 1 year of initial certification*)**

Producer shall maintain customer service tracking reports, including records of customer complaints, returns, credits, and corrective and preventative actions.

**V.7.2.4. Storage (*within 2 years of initial certification*)**

The Producer shall develop and implement written policies and procedures to manage temperature during the stockpiling of peat in the fields, including but not limited to the following:

- a. Systematic monitoring of the temperature;
- b. Procedures to avoid deterioration due to overheating; and
- c. Procedures to handle peat that has overheated.

**V.7.2.5. Transportation (*within 2 years of initial certification*)**

The Producer shall develop specifications for transportation of its bulk or packaged products(s), including but not limited to:

- a. Requirements to avoid contamination during bulk transportation; and
- b. Requirements for the safe transportation and storage of its packaged peat products.

**V.7.3. Tier 2 Requirements: Product Quality**

**V.7.3.1. Product Labeling and Grading**

The Producer shall utilize an industry recognized system for product grading.

## **VI. Handler Requirements**

### **VI.1. Product Traceability**

#### **VI.1.1. Tier 1 Requirements: Product Traceability**

##### **VI.1.1.1. Transportation and storage**

The Handler's product must conform to shipment requirements of shipping and receiving countries.

#### **VI.1.2. Progress Requirements: Product Traceability**

Currently there are no additional sector-specific Progress requirements.

#### **VI.1.3. Tier 2 Requirements: Product Traceability**

Currently there are no additional sector-specific Tier 2 requirements.

### **VI.2. Resource Conservation and Energy Efficiency**

#### **VI.2.1. Tier 1 Requirements: Resource Conservation and Energy Efficiency**

Currently there are no additional sector-specific Tier 1 requirements.

#### **VI.2.2. Progress Requirements: Resource Conservation and Energy Efficiency**

##### **VI.2.2.1. Energy Efficiency (*within 1 year of initial certification*)**

The Handler shall develop written protocols and procedures to reduce energy consumption in plant operations (e.g., fuel, electricity, transportation), including energy efficiency targets and timetables.

##### **VI.2.2.2. Greenhouse Gases (*within 2 years of initial certification*)**

- a. The Handler shall assess the greenhouse gases of its operations and develop reduction goals, with timetables for implementation.
- b. The Handler shall publish its policies regarding the greenhouse gas emissions and provide a publically available summary of its operations and proposed reduction goals.

##### **VI.2.2.3. Packaging Waste Annual Report (*within 1 year of initial certification*)**

The Handler shall provide a quantitative annual report detailing the volumes or weights of packaging wastes recycled, re-used, and/or sent to landfill,<sup>12</sup> and the degree to which these levels comply with established goals.

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<sup>12</sup> Packaging wastes include an estimate of those materials that the downstream user will landfill, re-use or recycle. These materials are not those wastes that are generated in the production and packaging of products, which are considered as in the Integrated Waste Management requirements.

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**VI.2.2.4. Disposition of Packaging Wastes** (*within 1 year of initial certification*)

- a. The Handler shall develop written policies and procedures to minimize the packaging wastes sent to landfill, including identification of opportunities to re-use and recycle packaging materials.
- b. The Handler shall identify quantitative goals and timelines for compliance, with results to be reported annually.

**VI.2.3. Tier 2 Requirements: Resource Conservation and Energy Efficiency**

Currently there are no additional sector-specific Tier 2 requirements.

**VI.3. Integrated Waste Management**

**VI.3.1. Tier 1 Requirements: Integrated Waste Management**

Currently there are no additional sector-specific Tier 1 requirements.

**VI.3.2. Progress Requirements: Integrated Waste Management**

**VI.3.2.1. Integrated Waste Management Annual Report** (*within 1 year of initial certification*)

The Handler shall provide a quantitative annual report detailing the volumes or weights of residual materials,<sup>13</sup> industrial, construction, and other production wastes that are recycled, re-used, and/or sent to landfill, and the degree to which these levels comply with established goals.

**VI.3.2.2. Disposition of Residual Materials** (*within 2 years of initial certification*)

- a. The Handler shall develop written policies and procedures to minimize the residual materials sent to landfill, including identification of opportunities to re-use and recycle residual materials.
- b. The Handler shall identify quantitative goals and timelines for compliance, with results to be reported annually.

**VI.3.3. Tier 2 Requirements: Integrated Waste Management**

Currently there are no additional sector-specific Tier 2 requirements.

**VI.4. Fair Labor Practices**

**VI.4.1. Tier 1 Requirements: Fair Labor Practices**

Currently there are no additional sector-specific Tier 1 requirements.

**VI.4.2. Progress Requirements: Fair Labor Practices**

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<sup>13</sup> Residual materials include, but are not limited to small branches, roots, perlite dust, plastic, and pallets.

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**VI.4.2.1. Worker Protection during Manufacturing, Blending and Handling (*within 1 year of initial certification*)**

The Handler shall establish written policies and procedures for worker protection from noise, dust (e.g., dust masks and/or pressurized cabins), physical or chemical dangers (e.g., protective gloves, glasses and boots), and other probable or potential hazards during loading, materials grading, materials blending/mixing, and packaging operations.

**VI.4.2.2. Worker Protection during Manufacturing, Packaging, Transportation and Use (*within 2 years of initial certification*)**

The Handler shall develop written policies and procedures to ensure proper and safe management of its products in order to avoid negative impacts on the health and safety of downstream workers and others in the supply chain who transport, re-package or use its products.

**VI.4.3. Tier 2 Requirements: Fair Labor Practices**

Currently there are no additional sector-specific Tier 2 requirements.

**VI.5. Community Benefits**

**VI.5.1. Tier 1 Requirements: Community Benefits**

**VI.5.1.1. Economic Viability; Efficient Utilization of By-Products**

The Handler shall develop written policies and procedures aimed at increasing its material efficiencies.

**VI.5.2. Progress Requirements: Community Benefits**

Currently there are no additional sector-specific Progress requirements.

**VI.5.3. Tier 2 Requirements: Community Benefits**

Currently there are no additional sector-specific Tier 2 requirements.

**VI.6. Product Quality**

**VI.6.1. Tier 1 Requirements: Product Quality**

**VI.6.1.1. Recordkeeping**

The Handler shall provide auditable records related to its current product quality assurance practices.

**VI.6.1.2. Packaging, Labeling and Shipping**

The Handler shall develop minimum specifications for packaging and labeling of its peat moss product(s), including but not limited to the following elements:<sup>14</sup>

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<sup>14</sup>Specifications must be determined by using the recognized testing methods according to current standards, regulations and/or laws. Products sold in bulk are not bound by this requirement.

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- a. Material Content: Product contents shall be accurately represented and labeled;
- b. Packaging: The product shall be packed, wrapped and presented in such a manner as to protect it from mechanical damage;
- c. Accompanying Information: Instructions, recommendations and warnings (as applicable) shall be provided along with the product for use in retail sales, in accordance with current provincial and federal regulations;
- d. Weight and measurement: The product shall comply with applicable regulations; and
- e. Shipping Documents: The product must conform to international shipment requirements (e.g., Canadian and USA).

**VI.6.1.3. Blending Methods and Material Content**

The Handler shall not utilize methods or materials that are banned or restricted by national or international regulations (e.g., Canadian or USA) in the handling facility or during shipment.

**VI.6.2. Progress Requirements: Product Quality**

**VI.6.2.1. Quality Management System (*within 1 year of initial certification*)**

The Handler shall design, document, implement, and maintain a Quality Management System including but not limited to the following:

- a. A written Quality Manual that includes:
  - i. Process steps, their sequences and interactions, including justifications for any exclusions;
  - ii. The criteria and/or methods needed for effective operation and control of such processes;
  - iii. Procedures for implementation, maintenance and documentation of the QMS;
  - iv. Record-keeping procedures;
  - v. Procedures for controlling document and records; and
  - vi. A Quality Policy (appropriate to the purpose, size, and complexity of the Handler's operation).
- b. Monitoring and analysis of the processes addressed in the Quality Manual to determine conformance with procedures, identify opportunities for continuous improvement, and identify preventative and corrective actions needed.
- c. Demonstration of management commitment to the QMS, including:
  - i. The assignment of a management representative to take primary responsibility for the QMS and VeriFlora;
  - ii. Designation of management responsibilities and chain of command in the development, review, update and approval of QMS procedures; and
  - iii. Provision of resources and information needed to support the QMS.

**VI.6.2.2. Product Integrity (*within 1 year of initial certification*)**

The Handler shall develop product specifications and document that its products

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meet these specifications. Documentation shall include:

- a. Auditable records of the ingredients placed into mixes; and
- b. Methods to ensure that the quality of the mixes for professional growers meets client expectations in term of specifications.

**VI.6.2.3. Customer Service (*within 1 year of initial certification*)**

Handler shall maintain customer service tracking reports, including records of customer complaints, returns, credits, and corrective actions and preventative actions.

**VI.6.2.4. Transportation (*within 2 years of initial certification*)**

The Handler shall develop specifications for transportation of its bulk or packaged products(s), including but not limited to:

- a. Requirements to avoid contamination during bulk transportation; and
- b. Requirements for the safe transportation and storage of its packaged peat products.

**VI.6.2.5. Product Guarantee (*within 1 year of initial certification*)**

The Handler shall have a written document, based upon the Quality Management Program, detailing its product guarantee.

**VI.6.3. Tier 2 Requirements: Product Quality**

Currently there are no additional sector-specific Tier 2 requirements.