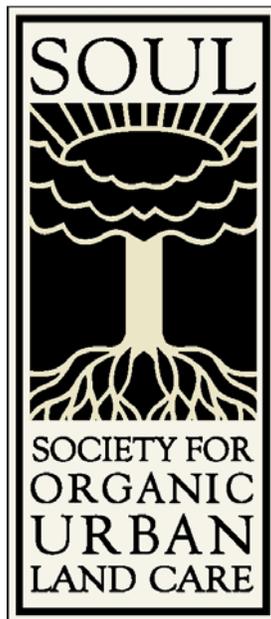


# ORGANIC LAND CARE STANDARD

Third Edition - 2006



**SOCIETY FOR  
ORGANIC URBAN LAND CARE  
(SOUL)**

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This Standard is subject to change in the light of further experience with Organic Land Care. Proposals for improvement, including detailed reasons, may be submitted to the

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# Acknowledgements

The Standard Review Committee of the Society for Organic Urban Land Care gratefully acknowledges the following resources consulted in the production of this Standard:

**BC Landscape Standard**, 6<sup>th</sup> Edition, 2001, British Columbia Society of Landscape Architects, and BC Landscape & Nursery Association, Vancouver, Canada

**British Columbia Certified Organic Management Standards**, 2002, Certified Organic Associations of British Columbia, Vernon, Canada

**IFOAM Basic Standard**, 2000 and 2002 (draft) versions, International Federation of Organic Agriculture Movements, Tholey-Theley, Germany

**Landscape Industry Fact Sheets**, 2002, NSW Environment Protection Authority, Sydney, Australia

**National Standard of Canada on “Organic Production Systems”**, October 2005 Draft

**National Standard for Organic and Bio-dynamic Produce**, Second Edition, 1998, Organic Produce Export Committee, Canberra, Australia

**Organic Turf and Recreational Area Management Requirements**, Appendix I of Organic Certification Requirements, First Edition, 2002, International Certification Services, Medina, U.S.A.

**Standards for Certification**, early draft, 2002, Organic Landscape Alliance, Toronto, Canada

**Standards for Organic Land Care**, 2001, NOFA Organic Land Care Committee, Northford, U.S.A.

# Guide to the Use of the Standard

This Standard was developed by the Society for Organic Urban Land Care in response to the need for clear guidelines for the creation and maintenance of landscapes for environmental, recreational and ornamental reasons, following organic principles.

This Standard's aims:

- a) to provide a clear definition of the practices and products employed in Organic Land Care;
- b) to lay down the minimum requirements Certified Organic Land Care Professionals must fulfill in the provision of Organic Land Care;
- c) to provide guidance to the practitioners of Organic Land Care in their decision making processes;
- d) to raise the awareness of the ecological requirements of urban landscapes;
- e) to provide credibility for the Organic Land Care industry and to protect the public from misleading practices and claims.

This Standard is not intended to provide all the information needed for successful Organic Land Care. Such information must be obtained through formal education and practical experience.

This Standard has been drafted to address Organic Land Care requirements in **diverse** environments across many geographic regions. The requirements under this Standard must be implemented with utmost sensitivity to local environmental conditions.

# Scope of the Standard

This Standard is the Code of Conduct adopted by Certified Organic Land Care Professionals certified by the Society for Organic Urban Land Care. This document also acts as a guideline and resource for all who are interested in Organic Land Care.

Where any requirement under this Standard conflicts with a legislated requirement in any jurisdiction, the legislated requirement shall prevail.

## Certification

The Society for Organic Urban Land Care (SOUL) certifies individuals, not landscapes, plants or products of any kind.

### Initial Certification Requirements

A Certified Organic Land Care Professionals certified by SOUL has demonstrated an understanding of the principles and practices of Organic Land Care satisfactory to the Certification Committee of SOUL through all of the following:

1. Passing a written examination
2. Providing proof of acceptable education and experience in each of the following areas:
  - Organic soil management, including composting
  - Organic landscape design, construction and maintenance
  - Plant knowledge
  - Site analysis
3. Making a knowledge based contribution to the public awareness of Organic Land Care.
4. Signing an affidavit that he or she will provide Organic Land Care according to the most current edition of the SOUL Organic Land Care Standard to clients who request Organic Land Care services.

A Certified Organic Land Care Professional is not required to commit to the exclusive practice of Organic Land Care.

Certification is valid for 3 years.

## Certification Renewal Requirements

The Certified Organic Land Care Professional may apply to the Certification Committee of SOUL for recertification every 3 years upon:

1. Providing proof of at least 30 hours of continuing education in organic practices in the preceding 3 years.
2. Submitting written reflections on his or her landscape practices during the preceding 3 years, including success stories and suggestions for improvements or changes.
3. Signing an affidavit that he or she will continue to provide Organic Land Care according to the most current edition of the SOUL Organic Land Care Standard to clients who request Organic Land Care services.

# Principal Aims of Organic Land Care

Organic Land Care is the design, construction and maintenance of landscapes according to the practices prescribed in this document. Organic Land Care excludes the commercial production of food and fiber, and focuses predominantly on ornamental and recreational landscapes, and predominantly in urban areas.

Organic Land Care aims to achieve its overall landscape goals through the use of practices and products that preserve and enhance the health of complete ecosystems, and the quality of life within urban environments.

The principal aims of Organic Land Care are:

- a) To work with natural systems and processes rather than seeking to dominate them;
- b) To encourage and enhance biological cycles within landscapes, involving micro-organisms, soil flora and fauna, plants and animals;
- c) To optimize and maintain the long term biological activity of soils;
- d) To practice the responsible use of water, and the protection of water resources;
- e) To optimize air quality and circulation in the soil, water and atmosphere in support of all life forms;
- f) To use, as far as possible, renewable, biodegradable and recycled resources from local sources and to minimize waste;
- g) To work as much as possible within closed systems with regard to organic matter and nutrient cycling;
- h) To avoid or minimize all forms of pollution in the establishment and care of landscapes;
- i) To ensure biological diversity within urban landscapes;
- j) To encourage the creation and protection of native plant and wildlife habitats;
- k) To consider the wider social and ecological impacts of urban landscapes and the practices and products used to create and maintain them.

# Glossary

This is the definition of terms as used in this document.

## **Antibiotic**

Any of various substances that are used to inhibit or destroy the growth of microorganisms in the prevention and / or treatment of disease, such as penicillin and streptomycin.

## **Biodiversity**

The number, variety and genetic variability of organisms found within a specified area.

## **Bio-dynamic**

Agricultural practices based principally on the work of Rudolf Steiner and subsequent development derived from practical application, experience and research.

## **Botanical pesticide**

Non-synthetic pesticide derived from plants.

## **Buffer zone**

An area designated to intercept or moderate adverse pressures or influences.

## **Certification**

The procedures by which a certifying agency provides written assurance that a practitioner conforms to a standard.

## **Closed system**

Self sustaining processes and practices within a defined area.

## **Composting**

The art and science of combining organic materials under controlled conditions so that the assigned raw ingredients are transformed into humus.

## **Contamination**

The presence of a prohibited substance in a product or in the environment.

## **Design**

The underlying plan or conception that affects and controls the function and development of the landscape.

**Ecosystem**

The complex community created through the interaction of organisms, soil, water, air and other natural forces, functioning as an ecological unit.

**Environment**

All external factors to which an organism or ecosystem is exposed, and which ultimately determine its form and function.

**EPA**

Environmental Protection Agency

**Fertilizer**

A substance containing one or more recognized plant nutrients which is used primarily to promote plant growth.

**Fungicide**

A substance that kills fungi, or inhibits the growth of a fungus.

**Genetic engineering**

Techniques from molecular biology by which the genetic material of plants, animals, micro-organisms, cells and other biological units are altered in ways or with results that could not be obtained by methods of natural mating and reproduction or natural recombination. Techniques of genetic modification include, but are not limited to: recombinant DNA, cell fusion, micro and macro injection, encapsulation, gene deletion and doubling, but do not include traditional breeding, conjugation, natural hybridization and tissue culture.

**Genetically modified organism**

An organism transformed by genetic engineering including, but not limited to plants, animals and microbes.

**Green Manure**

Crops or naturally occurring plants that are incorporated into the soil for the purpose of soil improvement.

**Habitat**

The area over which a species naturally exists; the area where a species occurs. Also used to indicate types of habitat, e.g. seashore, riverbank, wetland, woodland, grassland.

**Herbicide**

A substance that kills plants or inhibits plant growth.

**IFOAM**

International Federation of Organic Agriculture Movements

**Ingredient**

A substance used in the manufacture or preparation of a product, or present in a final product as used.

**Active Ingredient**

A substance in a product with an action specific to the intended purpose of the product; the portion of a pesticide formulation which is the actual toxicant.

**Inert Ingredient**

A substance other than the active ingredient which is intentionally included in a product to make it easier to use or more efficient. Inert ingredients may have harmful or toxic effects

**Insecticide**

A substance that kills insects or inhibits the growth of insect populations

**Invasive**

Marked by the tendency to intrude or encroach

**Landscape Management Plan**

A written integrated plan outlining the utilitarian, ecological and aesthetic objectives for a specific landscape, and the landscape management practices and products that will be employed.

**Manure**

Uncomposted bedding, feces and urine produced by livestock.

**OMRI**

Organic Materials Review Institute

**Organic**

Of, relating to, or derived from living organisms; a holistic approach which emphasizes the importance of relationships between living organisms and their environment.

**Organic Land Care**

See: Principal Aims of Organic Land Care, page 8 of this document

**Organic Matter**

The remains, residues or waste products of any organism.

**Organic Practices**

An ecological management system that promotes and enhances biodiversity, biological cycles, and soil geological activity. It is based on minimal use of off-

site inputs and employs practices that restore, maintain and enhance ecological harmony.

**Organic Product**

A product which has been produced, processed and/or handled in compliance with organic standards.

**Pest**

An undesired organism, including animals, plants and microorganisms

**Pesticide**

A substance that kills pests, or inhibits the growth of pest populations; an umbrella term for insecticides, herbicides, fungicides, etc.

**Synthetic**

Manufactured by chemical and industrial processes. May include products not found in nature, or products synthetically compounded or simulated from natural sources (but not extracted from natural raw materials).

**Synthetically compounded or simulated**

Derived through a process which chemically changes a material extracted from naturally occurring plant, animal, microbial or mineral sources, excepting microbiological, mechanical and heat processes.

# Introduction to the Organic Land Care Standard

This Standard is divided into 2 main sections:

- **Regulated Practices**
- **Regulated Products and Materials**

## Regulated Practices

This Standard regulates practices according to their ability to achieve the principal aims of Organic Land Care. This Standard refrains from prescribing specific activities or methods for these practices.

Each landscape is unique, and specific activities or methods may produce different results in different circumstances.

**Example:** This Standard does not discuss the merits of specific methods and objectives for pruning plants. Instead it only directs that any landscape maintenance practice "**avoid or minimize permanent injury to plants**", and "**prevent the introduction or spread of undesired organisms**".

Conversely, seemingly identical situations may require different intervention.

**Example:** The required landscape design practice "**protecting and enhancing biodiversity**" can be achieved through many different methods, including: diverse multi-storey plantings, creating wildlife habitat, increasing soil organic matter, protecting the landscape from traffic, introducing pest predators, etc.

The Certified Organic Land Care Professional must have the knowledge and experience to choose the most appropriate methods and activities to achieve the landscape design and management objectives under the regulations of this Standard.

The practices regulated under this Standard are presented in 4 sections:

- General Requirements
- Resource Management
- Landscape Management
- Plant Production

# General Requirements

These are basic requirements that must be met in all Organic Land Care activities.

## Resource Management

Resource management concerns itself with the management of **water, soil** and **air**.

### Water Management

One of the principal aims of Organic Land Care is to practice the responsible use of water, and to protect water resources.

Water circulates through the environment, resulting in the adaptation of whole ecosystems relative to the presence and quality of water. Any practices that affect the quantity, quality or direction of flow of water directly affect not only the immediate environment, but ecosystems far removed from the origin of the disturbance. For instance, a single source of contamination can affect surface or ground water over a large area; the redirection of natural water courses, or the interruption of the circulation of water, affects whole ecosystems.

Landscape management activities with a direct impact on water include:

- changing grades
- changing drainage patterns
- collecting and storing water
- modifying the soil environment
- changing the vegetation
- installing structures and impermeable surfaces
- irrigating landscapes
- using and disposing substances that dissolve in, or are carried with water.

None of these are intrinsically right or wrong, but must be evaluated in light of achieving the overall landscape design and management objectives with minimal impact on the quality and natural circulation of water.

## **Air Management**

It is a principal aim of Organic Land Care to optimize air quality and circulation in the soil, water and atmosphere in support of all life forms.

Life on earth, as we know it, has evolved because of the relative presence and combination of specific gases contained in the air, which is in turn affected by the metabolism of living organisms. Air circulates throughout the environment and acts as a carrier for small particles and organisms.

All processes and activities affect the composition and movement of air, and the presence and quantities of particles and organisms carried in the air. This affects the abundance, distribution and health of living organisms.

Landscape management activities with a direct impact on air include:

- selecting and placing plants and structures
- disposing of waste, including burning, dumping and composting
- compacting the soil
- changing water conditions in the soil and air
- using equipment and machinery
- emitting substances into the air

All landscape management practices must be evaluated for their ability to achieve the desired landscape design and management objectives in a way that protects and enhances the quality and circulation of air.

## **Soil Management**

The soil is a complex ecosystem in its own right: a diverse and interdependent biological, chemical and structural system composed of minerals, organic substances, air, water, microorganisms, plants and animals. Yet its processes are intricately linked with the larger ecosystem, of which soil is but one of many interrelated parts.

The structural and mineral components of the soil directly affect the diversity and health of the organisms dwelling there, including plants, while their biological processes in turn alter the structure and mineral composition of the soil. Each organism makes a unique contribution to this process: it is a delicate yet dynamic balance, fuelled by the constant recycling of organic matter.

The reduction of organic matter within the system results in a direct reduction of the biological activity of the soil. This in turn results in reduced plant growth and health, and the reduced vitality of the ecosystem as a whole.

It is a principal aim of Organic Land Care to work as much as possible within closed systems with regard to organic matter and nutrient cycling, as organic matter introduced into one system must inevitably be removed from another. Such practice is unsustainable from an overall ecological perspective.

Landscape management activities with a direct impact on soil include:

- changing the organic matter content of the soil
- changing the soil structure, texture and fertility
- changing the water conditions within the environment
- changing biodiversity above ground

All landscape management practices must be evaluated for their ability to achieve the desired landscape design and management objectives in a way that protects and enhances the long term biological activity of the soil.

## Landscape Management

Landscape management involves the **design, construction and maintenance** of landscapes in many different environments, and under many different circumstances. It is a deliberate intervention in natural processes to obtain a specific utilitarian or aesthetic result.

Over the long term landscapes can only be maintained in good health if the practices, tools and products chosen to create and maintain them support the diverse and interdependent relationships between all components of the environment.

Under this Standard, all landscape management practices are also governed by the regulations for Resource Management and Plant Propagation.

## Landscape Design

Landscape design is the conceptual creation of a landscape. This is the ideal time to consider the social and ecological impacts of the planned landscape, and the impacts of the practices and products used to create and maintain them.

Much of the success of the planned landscape depends on how well the vegetation has been matched to the unique conditions and the desired functions of the site. Landscape design requires the integration of knowledge from many different disciplines, and a thorough understanding of local conditions. Design considerations include

- microclimates
- light conditions
- soil properties
- wind patterns and air circulation
- temperature range
- moisture characteristics
- condition of existing vegetation and wildlife
- physical limitations of the site
- relationship of the site to its environment
- intended use for the site
- cultural and space requirements of desired plants
- products and practices to install and maintain the landscape.

Part of the landscape design process is the development of a landscape management plan, which outlines the design objectives and the practices and products that will be employed to achieve these objectives.

## **Landscape Construction**

Landscape construction is the deliberate structural alteration of the environment to meet specific landscape design or management objectives.

The intervention required to achieve the desired objectives may be minimal or, at the other extreme, may involve the creation of a complete and fully functioning ecosystem in a highly disturbed site.

Landscape construction activities include removing and installing:

- soil
- plants
- water features and irrigation
- structures such as stairs, fences, retaining walls, arbours and trellises, buildings, decks, paths, driveways, etc.

The success of the landscape depends on how well the practices and products employed in the construction of the landscape support the design objectives, and on their wider social and ecological impact on the environment.

## Landscape Maintenance

Landscape maintenance practices modify the environment to improve its health, function or appearance.

Landscape maintenance activities include:

- maintaining plants
- installing and removing plants
- managing the soil and water conditions of the landscape
- managing landscape pests and diseases

Organic Land Care seeks to prevent landscape problems by creating healthy ecosystems that provide for the needs of all the organisms contained therein. Organic Land Care is an integrated approach, in which all practices are evaluated and used for their ability to enhance and support the natural processes within the ecosystem, and to minimize damage to any part thereof.

The success of the landscape depends on how well the maintenance practices support the design objectives, and on their wider social and ecological impact on the environment.

## Plant Propagation

Plant propagation is the reproduction of plants by sexual or a-sexual means, including seed, cuttings, grafting, divisions and tissue culture. This Standard applies **ONLY** to the **PROPAGATION** of plants and seeds, but does **NOT** certify the product.

Under this Standard, all plant propagation practices are also governed by the regulations for Resource Management and Landscape Management.

## Regulated Products and Materials

Organic Land Care emphasizes management practices rather than products. Material inputs should be viewed as supplementary tools, and must not be used to indefinitely support a poorly designed or badly managed landscape. Organic Land Care practitioners should minimize off-site inputs by employing landscape management practices that work in harmony with natural biological systems.

Organic Land Care practitioners should always use the most environmentally benign products available, and use, as much as possible, renewable, biodegradable and recycled resources from local sources.

The Products and Materials Lists in this Standard are not comprehensive or complete: they do not include all products and materials that are prohibited and they do not include all potentially allowable products and materials. The lists will evolve as more information and different products become available.

Organic Land Care practitioners should always carefully read the label or other documentation for any material being used to guard against the possibility of contamination and negative ecological impacts. All materials must be used with awareness and care for the environment, and for the health and safety of the workers involved and the community at large.

The success of the landscape depends on how well the products employed in the construction and maintenance of the landscape support the design objectives, and on their wider social and ecological impact on the environment.

# Organic Land Care Standard

## Regulated Practices

### Classification of Regulated Practices

Practices regulated under the Standard are classified as **required**, **preferred**, and **prohibited**.

**Required:** means that Certified Organic Land Care Professionals must employ these practices in the provision of Organic Land Care.

**Preferred:** means that Certified Organic Land Care Professionals should prefer these practices over others available at this time for the provision of Organic Land Care.

**Prohibited:** means that Certified Organic Land Care Professionals must not employ these practices under any circumstances in the provision of Organic Land Care.

## General Requirements

- Required:**
- Employing practices in order of preference for their ability to:
    1. enhance and support natural processes within healthy ecosystems
    2. minimize damage to the environment or any part thereof.
  - Preparing and / or working to a landscape management plan.
  - Minimizing all forms of pollution in the establishment and care of landscapes.
  - Maintaining tools and machinery in optimal working condition.

- Prohibited:**
- Using, introducing, propagating or producing genetically modified organisms in any form

## Resource Management

### Water Management

- Required:**
- Providing the appropriate quantity and quality of water to maintain the health of the landscape
- Preferred:**
- Conserving water in the landscape through appropriate grades, structures, soil management, vegetation and water use
- Prohibited:**
- Creating grades and drainage patterns that result in water being discharged onto neighbouring property without prior consent
  - Using water in a manner that results in the degradation of the soil
  - Draining or filling wetland habitat
  - Using, handling, storing or disposing of any substance or product in a manner that results in the contamination of water

### Air Management

- Required:**
- Optimizing the circulation of air throughout the environment
- Preferred:**
- Minimizing emissions into the air
  - Minimizing noise

- Prohibited:**
- Using, handling, storing or disposing of any substance or product in a manner that result in the contamination of air

## Soil Management

- Required:**
- Maintaining or increasing soil organic matter content
  - Preventing soil erosion
  - Preventing and / or relieving soil compaction in planted areas

- Preferred:**
- Recycling organic matter in place
  - Composting and reusing organic matter on site
  - Increasing diversity of soil life
  - Applying fertilizers and pH altering products based on soil or tissue analysis.

- Prohibited:**
- Applying materials that inhibit the cycling of organic matter, air and water in planted areas
  - Applying materials, or using practices that result in the degradation of soil fertility or soil structure in planted areas
  - Applying materials, or using practices that result in the degradation of soil biodiversity in planted areas
  - Using, handling, storing or disposing of any substance or product in a manner that results in the contamination of soil
  - Disposing of organic matter in waste disposal facilities where composting alternatives exist

# Landscape Management

## Landscape Design

- Required:**
- Enhancing and protecting biodiversity
- Preferred:**
- Leaving native ecosystems intact
  - Creating ecosystems that are sustainable with minimum human intervention
  - Using native plants
  - Using disease and pest resistant plant varieties
  - Using plants whose characteristics and cultural requirements are appropriate for the site
  - Modifying the site to create an appropriate environment for the desired plants
  - Creating appropriate barriers or buffer zones to protect organically managed landscapes from contamination through neighbouring non-organic practices
  - Creating or maintaining natural buffers along watercourses and wetland habitat
  - Communicating with neighbouring land owners about landscape modifications that may cause environmental changes beyond the landscape boundary.
- Prohibited:**
- Introducing plants known to be invasive in the area or in similar environments

## Landscape Construction

### Required:

- Using the most appropriate materials in optimal quantities to create ideal habitat for the chosen plants and the organisms associated with them
- Avoiding or minimizing injury to plants, above and below ground
- Limiting soil compaction to areas required for structural support
- Disposing of waste materials in the most environmentally sound manner available.

### Preferred:

- Using or modifying the existing soil
- Using the least invasive construction methods and tools to achieve the landscape design objectives
- Using the most environmentally benign building materials available
- Using renewable, biodegradable and recycled resources from local sources
- Using plants and seeds from certified organic sources
- Minimizing and recycling waste
- Sourcing plants and seeds that have been cultivated rather than removed from the wild, except where salvaged from an area where the vegetation will be destroyed for other reasons

### Prohibited:

- Causing disturbance beyond the landscape boundary.

## Landscape Maintenance

- Required:**
- Working to a landscape management plan
  - Maintaining or increasing ecosystem biodiversity
  - Modifying the environment to increase the overall health of the ecosystem
  - Avoiding or minimizing injury to plants, above and below ground
- Preferred:**
- Preventing the introduction or spread of undesired organisms
  - Employing biological, physical and mechanical methods to control undesired organisms
  - Removing or replacing plants that are poorly suited for the environmental conditions
  - Composting diseased plant parts

## Plant Propagation

- Preferred:**
- Establishing appropriate symbiotic microorganisms in the growing medium before sale or transplanting of plant material
  - Using growing media that do not compromise the sustainability of the source
- Prohibited:**
- Reducing the humus content of the soil

# Restricted Products and Materials

## Classification of Regulated Products and Materials

Products and materials regulated under this Standard are classified as **allowed**, and **prohibited**.

Any product or material containing more than one ingredient is classified according to the status of the most restricted ingredient.

Products and materials not specifically mentioned in the lists shall nonetheless be prohibited if they contain the following:

- a) Synthetic, synthetically compounded and synthetically simulated materials, unless specifically permitted;
- b) Materials which degrade the health of organisms necessary for healthy soil;
- c) Materials which cause negative acute or chronic health effects;
- d) Materials which are persistent in the environment and are damaging to the environment, or break down into compounds which are persistent and damaging;
- e) Sewage sludge in any form
- f) Genetically engineered organisms and their products.
- g) Ionizing radiation and forms of irradiation on products destined for use as pest control, elimination of pathogens and sanitation.

**Allowed:** means Certified Organic Land Care Professionals may use these products in Organic Land Care **within the restrictions indicated for each product**.

**Prohibited:** means Certified Organic Land Care Professionals must not use these products under any circumstances in Organic Land Care.

## Lists of Regulated Products and Materials

The information in these lists conforms to the National Standard of Canada on “Organic Production Systems”, September, 2006, **but is not identical**. The information has been selected for relevance to the Organic Land Care industry, and reorganized and cross referenced for easier use.

The lists have been organized according to product use as follows:

- 1. Growing media, fertilizers and related products**
- 2. Landscape health management products**
- 3. Construction materials and related products**
- 4. Cleaners**

Some products appear on more than one list, and may be allowed for one use but restricted or prohibited for another.

### Abbreviations:

#### Use:

- |   |  |
|---|--|
| A | Allowed – <b>restrictions my apply</b> and are described in the annotation |
| X | Prohibited   |

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Acetic acid, non-synthetic	Allowed as an adjuvant to adjust the pH of sprays
A	Agar	For use in initial mushroom spawn production
A	Alfalfa meal & pellets	Use organic alfalfa unless commercially unavailable. Ensure non-organic alfalfa is not product of genetic engineering.
A	Algae	See 'Aquatic plant products'.
A	Amino acids, non-synthetic	Amino acids produced by plants, animals and micro-organisms that are not from genetic engineering, and are extracted or isolated by hydrolysis, or by physical or other non-chemical means are considered non-synthetic. Non-synthetic amino acids may be used as plant growth regulators or chelating agents.
X	Amino acids (synthetic)	Amino acids that are considered to be synthetically produced or produced from genetically engineered organisms are prohibited.
X	Ammonia products	All ammonia products are prohibited for plant nutrition including: anhydrous ammonia, aqua ammonia, ammonium nitrate, ammonium phosphate, ammonium sulphate, and ammonium soaps.
X	Ammoniated micronutrients	Includes ammonium molybdate, ammonium pentaborate, ammoniated zinc chloride, and ferrous ammonium sulphate. See 'Trace elements (micronutrients)'.
X	Ammoniated zinc chloride	Prohibited.
X	Ammonium lignosulphate	Prohibited.
X	Ammonium molybdate	Prohibited.
X	Ammonium nitrate	Prohibited.
X	Ammonium pentaborate	Prohibited.
X	Ammonium phosphate	Prohibited.
X	Ammonium soaps	Prohibited.
X	Ammonium stillage	Prohibited
X	Ammonium sulphate	Prohibited.
X	Animal manure, un-processed	Unprocessed animal manure is prohibited for use in any areas or plantings exposed to human contact in urban environments, including food gardens.
A	Animal manure, processed	Heat-treated, mechanically and physically processed manures may be acceptable. Manure from animals suspected to be suffering from prion diseases must not be used.
X	Anhydrous ammonia	Prohibited.
X	Aqua ammonia	Prohibited.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Aquatic plant products	Natural (non-synthetic) extracts are allowed. Extraction with synthetic solvents is prohibited except for potassium hydroxide or sodium hydroxide, provided the amount of solvent used does not exceed the amount necessary for extraction. Of the two products, potassium hydroxide is the preferred choice.  Aquatic plant products are prohibited if they contain other synthetic preservatives, such as formaldehyde, or are fortified with otherwise prohibited plant nutrients.
A	Ascorbic acid, non-synthetic	Used as a natural growth promoter and for adjusting the pH of sprays
A	Ash	Ash from plant and animal sources only. Ashes from burning minerals, manure, or prohibited materials are prohibited. Wood stove ash is allowed only if not contaminated with coloured paper, plastics, other synthetic substances, and heavy metals such as arsenic, cadmium, chromium and lead. (Manure ash is prohibited because burning manure is wasteful of organic matter and nutrients.)
A	Basalt	Mined or quarried volcanic rock minerals.
A	Bentonite	See "Mined minerals, unprocessed".
A	Biodynamic preparations for compost	Chamomile (Prep. 503), dandelion (Prep. 506), oak bark (Prep. 505), stinging nettle (Prep. 504), valerian (Prep. 507), and yarrow flowers (Prep. 502).
A	Biodynamic preparations for soil & plants	Horn manure spray (Prep. 500) or horn silica (Prep. 501).
X	Biosolids	Sewage sludge
A	Biotite (iron, magnesium or aluminum silicates)	See 'Mined minerals, unprocessed'.
A	Blood and blood meal	Allowed only if sterilized. Use is discouraged due to the potential spread of prion diseases.
A	Bone meal	Permitted only if guaranteed free of specific risk materials (e.g. prions associated with Mad Cow Disease). Use is strongly discouraged due to the potential spread of prion diseases.
A	Borate	Shall only be used with documented deficiency relative to the type of crop. See 'Boron products (allowed)' and 'Boron products (prohibited)'.
A	Borax	Also known as sodium tetraborate. Shall only be used with a documented boron deficiency. See 'Boron products (allowed)'.
A	Boron products (allowed)	The following soluble boron products may be used: sodium tetraborate (borax and anhydrous), and sodium octaborate. Shall only be used with a documented boron deficiency relative to the type of crop. See "Trace elements (micronutrients)" for documentation requirements.
X	Boron products (prohibited)	Ammonium pentaborate is prohibited.
X	Burned lime	Prohibited.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Calcium chloride	Natural sources only. Shall be food grade quality. Can be used to adjust nutrient deficiencies and / or physiological disorders.
A	Calcium, natural sources	Sources include shells from aquatic animals, limestone, dolomite (not slaked), aragonite, eggshell meal, lime from sugar processing and mined CaCO <sub>3</sub> .
X	Calcium sources (prohibited)	Calcium products which have been used in controlled atmosphere storage are prohibited.
X	Calcium hydroxide	Also known as hot lime or quicklime
A	Calcium lignin sulfonate	Lignin sulfonate. See 'Chelates (allowed)'
X	Calcium nitrate	Prohibited.
X	Calcium oxide	Also known as Burned Lime.
A	Calcium sulphate	See 'Gypsum (mined source)'. Sulphates produced using sulfuric acid are prohibited.
X	Calcium, synthetically derived	Prohibited.
A	Cannery wastes	May contain substantial pesticide residues. Use only if certified organically grown, documented to be uncontaminated by pesticides or thoroughly composted prior to use.
A	Carbon dioxide	For soil and greenhouse use
A	Cardboard	Cardboard which is not impregnated with fungicides may be used as mulch or compost feedstock.
A	Cardboard, waxed	Paraffin contained in waxed cardboard used as a mulch or compost ingredient cannot exceed 0.75% by weight of the total feed stock.
A	Chelates (allowed)	Natural chelates (such as amino acids, citric acid, tartaric acid, and other di- and tri- acid chelates) ,and lignin sulfonate are allowed. Synthetic chelating agents are not allowed with micronutrients unless they are specifically listed for such use.
X	Chelates (prohibited)	Prohibited chelating agents include DTPA, EDTA, HEDTA, NTA, glucoheptonic acid and its salts, and synthetic amino acids.
X	Chilean nitrate	See 'Sodium nitrate'.
A	Chloride of Lime	See "Calcium chloride"
A	Clay	See "Mined minerals, unprocessed".  Bentonite, perlite and Zeolite as a soil amendment or seed pellet additive.
	Coal	See "Humic acid"
A	Colloidal Rock Phosphate	Shall not be fortified or processed with synthetic chemicals. Cadmium shall not exceed 90 mg/kg P <sub>2</sub> O <sub>5</sub>

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Compost	<p>Composting refers to the carefully managed process by which organic materials are thermophilically digested. In order to stabilize the nutrients in compost effectively, reduce some pesticide residues, and kill weed seeds and pathogens, aerobic compost piles shall reach a temperature of 55-60 degrees Celsius (130-140 F) for a period of several days and the finish decomposing for about six weeks. Compost should remain moist and aerobic, and never water logged for the whole decomposition period.</p> <p>Organic waste material derived from industrial processing including abattoir waste, yeast fermentation waste, whey, hatchery waste, fish farm wastes, mushroom compost and paper and wood products are restricted products and documentation and/or appropriate laboratory analysis for the absence of contamination by materials prohibited in these standards is required. Acceptable materials include animal manure, by-products of the processing of agricultural products, and source separated yard debris.</p> <p>The following are prohibited in compost: sewage sludge, synthetically fortified compost starter, glossy paper, and coloured ink. Paraffin from waxed cardboard cannot exceed 0.75% of total feed stock by weight.</p> <p>See also: 'Microbial products' for information on compost starters.</p> <p>Spent mushroom and vermiculite substrate: natural substance or those derived from natural substances without the addition of chemically synthesized substances or chemical treatment.</p> <p>Composted animal excrements, including poultry: natural substance or those derived from natural substance without the addition of chemically synthesized substances or chemical treatment.</p> <p>Compost from off-site, organic or non-organic sources; on-site, organic or non-organic sources: natural substances or those derived from natural substances without the addition of chemically synthesized substances or chemical treatment, in accordance with this standard.</p>
A	Compost tea	Compost must be made from substance that meets compost standards.
X	Copper ammonia base	Prohibited.
X	Copper ammonium carbonate	Prohibited.
X	Copper nitrate	Prohibited.
A	Copper products (allowed)	<p>Copper sulphate, copper oxide, copper sulphate, and copper oxychloride may be used to correct documented copper deficiencies.</p> <p>These shall be used in a manner that prevents excessive copper</p>

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
		accumulation in the soil. Buildup of copper in soil may prohibit future use. Use with caution.
X	Copper products (prohibited)	Copper ammonia base, copper ammonium carbonate, copper nitrate and cuprous chloride are prohibited as sources of copper for plant nutrients.
A	Copper oxide	May be used to correct documented copper deficiencies only. Shall be used in a manner that prevents excessive copper accumulation in the soil. See 'Copper products, restricted'.
A	Copper oxychloride	May be used to correct documented copper deficiencies only. Shall be used in a manner that prevents excessive copper accumulation in the soil. See 'Copper products, restricted'.
A	Copper sulphate	May be used to correct documented copper deficiencies only. Shall be used in a manner that prevents excessive copper accumulation in the soil. See 'Copper products, restricted'.
A	Corn gluten meal	Must be from non genetically engineered plants.
A	Corn meal	Must be from non genetically engineered plants.
A	Crab shells	Allowed.
X	Cuprous chloride	Prohibited as a source of copper for plant nutrients.
	Cytokinins	See 'Growth regulators (allowed) and (prohibited)'.
A	Di-acid chelates	See 'Chelates (allowed)'
X	Dolomite, fired	Magnesium oxide. Prohibited.
A	Dolomite, mined	Magnesium carbonate and calcium carbonate. May cause build-up of magnesium. Use with caution. Must be from a natural source. See 'Limestone'
X	Dolomite, slaked	Magnesium hydroxide.
X	DTPA	Prohibited.
X	EDTA	Prohibited.
A	Egg shell meal	Allowed.
A	Enzymes	Acceptable if derived microbiologically from natural materials and not fortified with synthetic plant nutrients.
A	Epsom salts	See 'Magnesium sulphate'.
A	Feather meal	If composed of feather meal only and unadulterated with non-allowed materials.
A	Feldspar	See 'Mined minerals, unprocessed'.
A	Ferric and ferrous compounds (allowed)	Includes ferric oxide, ferric sulphate and ferrous sulphate. See 'Iron products (restricted)' and 'Trace elements (micronutrients)'
X	Ferric and ferrous compounds (prohibited)	Includes ferric chloride and ferrous ammonium sulphate. See 'Iron products (prohibited)' and 'Trace elements (micronutrients)'.
X	Ferric chloride	Prohibited for use as a source of plant nutrients.
A	Ferric oxide	May be used where a soil or plant nutrient deficiency is

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
		documented by soil or tissue testing.
A	Ferric sulfate	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
X	Ferrous ammonium sulphate	Prohibited.
A	Ferrous sulphate	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
A	Fertilizers, blended (allowed)	If composed entirely of allowed materials. See classification for each separate ingredient. Inert ingredients for pelletizers, etc. must be individually approved or be from natural sources.
X	Fertilizers, blended (prohibited)	If the product contains any prohibited materials.
A	Fiber row covers	Shall not be incorporated into the soil or left in the field to decompose; shall be removed at the end of the growing season.
A	Fish emulsion or solubles	See 'Fish products'.  Natural substance or those derived from natural substances without the addition of chemically synthesized substances or chemical treatment with the exception that liquid fish products as soil and plant amendments may be pH adjusted with (in preferential order) organic vinegar, organic citric acid, or phosphoric acid. The amount of acid used shall not exceed the minimum needed to reach a pH of 3.5.
A	Fish farm wastes	Shall be composted
A	Fish hydrolysate	See 'Fish products'.
A	Fish meal, powder	See 'Fish products'.
A	Fish products	Natural substance or those derived from natural substances without the addition of chemically synthesized substances or chemical treatment.  Liquid fish products can be pH adjusted using (in preferential order) organic vinegar, organic citric acid, or phosphoric acid. The amount of acid used cannot exceed the minimum amount needed to lower the pH to 3.5.  Fish products are prohibited if they contain other synthetic preservatives or are fortified with otherwise prohibited plant nutrients.
X	Formaldehyde	Prohibited.
A	Fulvic acid	Dilute potassium hydroxide extracts of mined sources
X	Genetically engineered organisms	Prohibited in any form
A	Gibberellic acid	Acceptable if made from a fermentation process and not fortified with prohibited synthetic substances. The fermentation process must not use genetically engineered organisms. See 'Growth regulators for plants (allowed and prohibited)'.
A	Glauconite	Also known as Greensand. See 'Mined minerals'.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
X	Glucosheptonic acid	Glucosheptonic acid and its salts are prohibited as chelating agents in fertilizers.
A	Granite dust	See 'Mined minerals'. Sources that are mixed with petroleum products, such as from stone engraving, are prohibited.
A	Grass clippings	See 'Plants'. Crop wastes that potentially contain significant levels of pesticide contaminants are restricted.
A	Green manure	See 'Plants'.
A	Greensand	Also known as Glauconite. See 'Mined minerals'.
A	Growth regulators for plants (allowed)	Natural plant hormones such as gibberellic acid, indole acetic acid (IAA) and cytokinins are allowed. Vitamin B1 is also allowed. Must not contain prohibited synthetic substances.
X	Growth regulators for plants (prohibited)	All synthetic growth regulators not explicitly allowed are prohibited. Includes all formulations of the propagation hormone IBA (Indol-3-butyric acid) as well as the growth regulator NAA (1-Naphthalene acetic acid).
A	Guano, bat or bird	Shall be decomposed and dried deposits from wild bats or birds. Domesticated fowl excrement is considered 'manure'; not 'guano'. See 'Compost' for the definition of compost.
X	Gypsum, by-product	Gypsum produced as a by-product of superphosphate manufacture (the reaction of rock phosphate and sulphuric acid), from precipitation of sulphur dioxide gas with limestone, or from dry-wall rejects is prohibited.
A	Gypsum, mined	Calcium sulphate. Mined source; for correcting calcium and/ or sulfur deficiencies and for amending soil salinity problems documented by soil and / or plant tissue testing.
A	Hay	See 'Plants'. Crop wastes that potentially contain significant levels of pesticide contaminants are restricted.
X	HEDTA	Prohibited.
	Hormones	See 'Growth regulators for plants (allowed & prohibited)'.
X	Hot lime	Also known as calcium hydroxide or quicklime
X	Human excrement	Prohibited.
A	Humic acid	Dilute potassium hydroxide extracts of mined sources
A	Humus from worms and insects (vermi-compost)	If made with materials in accordance with this standard.
X	Hydrated lime	Also known as Slaked Lime.
A	Hydrated magnesium sulphate	Epsom salts and Kieserite. Sulphates produced using sulfuric acid are prohibited.
	Indole acetic acid	See 'Growth regulators for plants (allowed & prohibited)'.
	Inoculants	See 'Microbial products'.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Iron citrate	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
A	Iron products (allowed)	Ferric oxide, ferric sulphate, ferrous sulphate, iron citrate, iron sulphate or iron tartrate may be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
X	Iron products (prohibite)	Includes ferrous ammonium sulphate, ferric chloride, iron nitrate and synthetic iron phosphate. See 'Trace elements (micronutrients)'.
A	Iron sulphates	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing. Sulphates produced using sulfuric acid are prohibited.
A	Iron tartrate	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
A	Kaolin clay	Allowed
A	Kelp and kelp products	See 'Aquatic plant products'.
A	Kieserite	See 'Mined minerals'
A	Langbeinite	Also known as sulphate of potash magnesia. See 'Mined minerals'.
A	Leaf mould	See 'Plants'.
X	Leather by-products	Residues from hide processing. Likely to be highly contaminated with synthetic metals or solvents which are used in leather processing. Includes leather meal, leather tankage, and leather dust.
A	Leonardite	See 'Humic acid'
A	Lignin sulfonate	See 'Chelates (allowed)'.
A	Lignite	See 'Humic acid'
A	Lignosulfonic acid	See 'Chelates (allowed)'.
X	Lime, burned	Calcium oxide, also known as quicklime.
X	Lime, hot	Also known as calcium hydroxide. Prohibited.
X	Lime, slaked	Calcium hydroxide. Also known as hydrated lime.
A	Limestone (allowed)	Magnesium carbonate and calcium carbonate. May cause build-up of magnesium. Use with caution. Shall be from natural source. Oyster shell flour, limestone, dolomite (not slaked), aragonite, eggshell meal, lime from sugar processing and mined CaCO <sub>3</sub> are allowed.  Calcium products that have been used in controlled atmosphere storage are prohibited.
X	Lye	Prohibited for use in landscapes or plant production such as for adjusting pH.
A	Magnesium carbonate	Naturally occurring in dolomite and magnesite.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Magnesium chloride	Natural sources only.
X	Magnesium oxide	Produced by heating magnesium carbonate.
A	Magnesium rock	Natural substance or those derived from natural substances without addition of chemically synthesized substances or chemical treatments. See 'Mined minerals'.
A	Magnesium sulphate, mined	As Kieserite or Epsom salts. See 'Mined minerals'. Permitted if mined. Sulphates produced using sulfuric acid are prohibited.  From natural sources as soil/plant amendments included with micronutrients; for use as a soil amendments where there is evidence of documented magnesium deficiency.
A	Magnesium sulphate, synthetic	As synthetically produced Epsom salts. Allowed for use with a documented magnesium deficiency. Sulphates produced using sulfuric acid are prohibited.
A	Manganese products (allowed)	Manganous oxide and manganese sulphate may be used to correct documented manganese deficiencies. See 'Trace elements (micronutrients)'.
X	Manganese products (prohibited)	Manganese chloride, manganese nitrate and potassium permanganate are prohibited. See 'Trace elements (micronutrients)'.
X	Manganese chloride	Prohibited.
X	Manganese nitrate	Prohibited.
A	Manganese sulphate	May be used to correct documented manganese deficiencies.
A	Manganous oxide	May be used to correct documented manganese deficiencies.
	Manure	See 'Animal manure, unprocessed and processed'
A	Mica	See 'Mined minerals, unprocessed'.
A	Microbial inoculants	See 'Microbial products'.
A	Microbial products	Allowable microbial products include Rhizobium bacteria, mycorrhizal fungi, Azolla, yeast and other microorganisms on compost, plants, seeds, soils and other components of the organic operation.  Ionizing radiation is allowed for use on peat moss carrier only, before addition of microbial inoculants. Radiation is otherwise prohibited.  Genetically engineered organisms or viruses are prohibited.  Microbial products are prohibited if the final product contains synthetic preservatives such as sodium sulphite, or they are fortified with otherwise prohibited plant nutrients.
	Micronutrients	See 'Trace elements (micronutrients)'.
A	Mined minerals, and unprocessed mined minerals	A mined mineral must not have undergone any change in its molecular structure through heating or combining with other substances. Acceptable if the substance is not processed or fortified with synthetic chemicals. Mined minerals are regarded

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
		as supplements to a balanced organic soil building program. Some of the minerals that are mined can also be made synthetically or are by products of industry; investigate the source of any new substance.
A	Molasses	Shall be organic molasses unless not commercially available.
A	Molybdenum products	To correct documented molybdenum deficiencies. See 'Trace elements (micronutrients)'.
A	Mulch	Non-organic sources of straw, leaves, grass clippings or hay must be free of pesticides and other contaminants. Wood chips and sawdust must be from untreated wood. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas. Organic matter in the form of plant residues from organic sources is allowed for mulching.
A	Muriate of potash	Mined potassium salts (e.g. sylvinite, kainite)
A	Mushroom compost	See 'Compost'.
A	Naturally occurring biological organisms (e.g. worms) and their products	Worm castings (vermi-compost) from organic or non-organic manure sources in accordance with this standard.
A	Newspaper (allowed)	Plain paper and paper printed with vegetable based inks is allowed as a mulch or compost ingredient. May cause build-up of aluminum. Use with caution.
X	Newspaper (prohibited)	Coloured or glossy paper is prohibited for use as a mulch or compost ingredient.
X	Niter	Also known as potassium nitrate. No mined source of niter has been verified at this time.
X	Nitrate of soda-potash	Prohibited
X	NTA	Prohibited
A	Oyster shell flour	Ground shells from oysters. See 'Limestone'
A	Paper (allowed)	Plain paper and paper printed with vegetable based inks is allowed as a mulch or compost ingredient. May cause build-up of aluminum. Use with caution.
X	Paper (prohibited)	Coloured or glossy paper
A	Peat moss	Shall not contain synthetic wetting agents.
A	Pelletising materials (allowed)	Clay, gypsum or other non-synthetic coatings are allowed.
X	Pelletising materials (prohibited)	Plastic polymers and other synthetic substances are prohibited.
A	Perlite	Allowed
X	Permanganate of potash	Prohibited
	Plant hormones	See 'Growth regulators for plants (allowed) or (prohibited)'.
A	pH buffers (allowed)	Shall be from a natural source such as organic citric acid, organic vinegar, or phosphoric acid.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
X	pH buffers (prohibited)	Lye and sulphuric acid are prohibited for use as pH buffers.
A	Phosphate rock	Shall not be fortified or processed with synthetic chemicals. Cadmium shall not exceed 90mg/kg P <sub>2</sub> O <sub>2</sub>
X	Phosphoric acid, synthetic	Prohibited.
X	Piperonyl butoxide	Although this material is derived from a plant source originally, it undergoes a substantial molecular change during its extraction and processing and must not be used in organic food production. Check the labels on botanicals to make sure this is not in the product.
A	Plant (vegetative) by-products	Those derived from natural substances without the addition of chemically synthesized substances or chemical treatment. Organic sources shall be used unless commercially unavailable.
A	Plants	Includes plant preparations of aquatic or terrestrial plants or parts of plants such as cover crops, green manure, crop wastes, hay, leaves and straw. Parts of plants used as soil amendments and foliar feeds are permitted.  Crop wastes that potentially contain significant levels of pesticide contaminants are restricted.
X	Plastic mulches	Prohibited for permanent use in perennial landscapes.
A	Plastic row covers for solarization	Shall not be incorporated into the soil or left in the landscape to decompose; shall be removed at the end of the growing season. Use of polyvinyl chloride plastic is prohibited
A	Pomaces	Shall be from certified organically grown fruits or vegetables, documented free of contaminants, or shall be aerobically composted before use.
A	Potassium chloride	Mined potassium salts (e.g. sylvinite, kainite)
X	Potassium nitrate	Prohibited.
X	Potassium permanganate	Prohibited.
A	Potassium rock powders	Includes basalt, biotite, mica, feldspars, granite and greensand.
A	Potassium sulphate, non-synthetic	Only from langbeinite or other natural sources. See 'Mined minerals, unprocessed'.
X	Potassium sulphate, synthetic	Includes potassium sulphate produced by acidulation or chemical reaction.
A	Potassium sulfate magnesia	Langbeinite
A	Potting soil	Shall not contain synthetic wetting agents or synthetic fertilizers
A	Pumice	Allowed
X	Quicklime	Also known as calcium hydroxide or hot lime. Prohibited.
A	Rock dusts (stone meal) unprocessed	See 'Mined minerals'.
A	Rock Phosphate	Shall not be fortified or processed with synthetic chemicals. Cadmium shall not exceed 90mg/kg P <sub>2</sub> O <sub>2</sub>

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Rock potash	Mined potassium salts (e.g. sylvinite, kainite)
A	Sand	Not containing prohibited substances
A	Sawdust & wood chips.	Shall be from untreated and unpainted wood. Natural substance or those derived from natural substances; shall not include chemically synthesized substances or chemical treatment.  Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
A	Seaweed and seaweed products	See 'Aquatic plant products'.
X	Sewage sludge	Prohibited.
A	Shells from aquatic animals	Allowed
X	Slaked lime	Calcium hydroxide
X	Sodium nitrate (Chilean nitrate)	Prohibited for use as a fertilizer.
A	Sodium octaborate	May be used only with a documented boron deficiency relative to the type of crop.
X	Sodium sulphite	Prohibited.
A	Sodium tetraborate	May be used only with a documented boron deficiency. Relative to the type of crop.
A	Soil	From organic sources in accordance with this standard
A	Soybean meal	Use organic soybean sources unless not commercially available. Shall not be from genetically engineered soybeans.
A	Sphagnum moss	Shall not contain synthetic wetting agents. Observe worker safety precautions.
A	Stillage and stillage extract	Ammonium stillage is prohibited
A	Straw	See 'Plants'
A	Sugar	Organic sugar is allowed as an ingredient in a formulation
A	Sulphate of potash magnesia	From langbeinite. See "Mined minerals"  Natural substance or those derived from natural substances without the addition of chemically synthesized substances or chemical treatment.
A	Sulphates of zinc or iron	May be used only to correct for deficiencies determined by soil or plant tissue testing. Sulphates produced using sulfuric acid are prohibited. See iron products.
A	Sulphur, elemental	Sulphur may be used as a soil amendment where more buffered sources of sulphur are not appropriate, and for foliar application.  Natural substance or those derived from natural substances

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
		without the addition of chemically synthesized substances or chemical treatment.
X	Sulphuric acid	Prohibited.
X	Super phosphate	Prohibited.
A	Tartaric acid	See 'Chelates (allowed)'.
A	Topsoil	See 'Soil'.
A	Trace elements (micronutrients)	Includes micronutrients from natural sources that are unchelated or chelated by materials listed as allowed. To be used when soil and plant deficiencies are documented via soil and / or plant testing.
A	Transplanting & Potting media	Shall be composed entirely of allowed substances
A	Tri-acid chelates	See 'Chelates (allowed)'
A	Vermicasts	See 'Worm castings'
A	Vermiculite	Allowed.
A	Vinegar	Organic vinegar is allowed as a pH buffer.
A	Vitamins (allowed)	Non-synthetic sources of all vitamins and synthetic sources of vitamins B1, C, and E are allowed.
X	Vitamins, synthetic	All synthetic vitamins not explicitly allowed are prohibited. Synthetic forms of vitamins B1, C and E are allowed.
A	Water, reclaimed	Reclaimed water shall comply with federal, provincial and local standards and may be used only on non-edible parts of food crops and crops not for human consumption. Use on edible plant parts and root crops is prohibited.
A	Wood ash	Wood ash shall be produced exclusively from untreated and unpainted wood. Wood stove ashes must be free of contaminants from coloured paper, plastic, etc. Excessive applications of ash can cause pH and nutrient imbalances. See 'Ash'.  Natural substance from plant and animal sources only, and those derived from natural substances without the addition of chemically synthesized substances or chemical treatments. Ashes from burning minerals, manure or prohibited substances are prohibited.
A	Wood chips and shavings	Shall be from untreated and unpainted wood. Shall be free from prohibited substances  Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
A	Worm castings	Allowed if made from organic manure. Compost made from non-organic manure by worms shall be demonstrated to not contain antibiotics.
A	Yeast	See 'Microbial products'.
A	Yucca products	Must not contain prohibited ingredients.

## List 1: Growing Media, Fertilizers and Related Products

Use	Name of Material	ANNOTATION
A	Zeolite	See 'Mined minerals, unprocessed'.
X	Zinc ammonium sulfate	Prohibited.
X	Zinc chloride	Prohibited.
X	Zinc nitrate	Prohibited.
A	Zinc products (allowed)	Zinc oxide and zinc sulphate may be used to correct a documented zinc deficiency. See 'Trace elements (micronutrients)'.
X	Zinc products (prohibited)	Zinc ammonium sulphate, zinc chloride and zinc nitrate are prohibited. See 'Trace elements (micronutrients)'.
A	Zinc oxide	May be used only with a documented zinc deficiency.
A	Zinc sulphate	May be used for foliar sprays or soil application if there is a documented deficiency. See 'Zinc products (restricted)'.

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
A	Acetic acid, non-synthetic	Spot treat via direct application to plant foliage. Broadcast application in planted areas prohibited.
A	Ammonium carbonate	For use as bait in insect traps and for monitoring purposes only Cannot be in contact with plants or soil.
A	Ammonium soaps	May be used as an animal repellent -i.e. deer. Cannot be applied to soil or edible portions of plants.
X	Anti-coagulants	Includes diphacinone and chlorophacinone. May not be used directly or in bait stations.
X	Antibiotics (prohibited)	Synthetic antibiotics are prohibited unless explicitly allowed.
X	Arsenic	Prohibited.
A	Arthropod pathogens	See 'Biological organisms'.
A	Arthropod predators and parasitoids	See 'Biological organisms'.
A	Arthropods	See 'Biological organisms'.
X	Aromatic petroleum solvents	Prohibited.
X	Avermectin	Prohibited.
A	Azadiractin	See 'Neem '. Allowed as an insecticide
A	Bacillus thuringiensis	See 'Biological Organisms'
X	Bactericides, synthetic	All synthetic bactericides that are not explicitly allowed or restricted are prohibited.
A	Baking soda	Sodium bicarbonate. Allowed for pest and disease control in greenhouses. Permitted for other crops once it is approved by the PMRA.
A	Bentonite	Allowed. Must not have undergone any change in its molecular structure through heating or combining with other substances. Acceptable if the material is not processed or fortified with synthetic chemicals
X	Benzene	Prohibited.
A	Biodynamic preparations for disease control	Horsetail spray (Prep 508) and horn silica (Prep 501).
A	Biological organisms	Living organisms that benefit plant production by reducing pest populations, such as bacillus thuringiensis, spinosad, granulosis (e.g. viruses, bacteria, protozoa, fungi, insects nematodes). No organisms from genetic engineering.
X	Bird baits	Prohibited: Poisons used to kill birds.
A	Blood meal	Allowed only if sterilized. Use is discouraged due to the potential spread of prion diseases.

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
A	Bordeaux mixes	Copper Sulphate and Hydrated Lime. See 'Copper products'. Must be used in a manner that minimizes copper accumulation in the soil.
A	Boric acid	May be used for structural pest control (i.e. ants). No direct contact with plants is allowed.
A	Botanical pesticides	Botanical pesticides must be used in conjunction with a Landscape Management Plan, and cannot be the primary method of pest control in the landscape. The least toxic botanicals shall be used in the least ecologically disruptive way possible. All label restrictions and directions need to be followed including restrictions concerning plants, livestock, target pests, safety precautions, pre-harvest intervals, and worker re-entry.  The only botanical pesticides registered for use in Canada and in a form that could be used by organic practitioners are some rotenone and pyrethrum products registered for domestic use.
X	Calcium hydroxide	Also known as hot lime. Also see 'Lime, hydrated'.
A	Calcium polysulfide	See 'Lime sulfur'. Foliar application as a fungicide is allowed on a restricted basis. May be used as an insecticide only if there are no feasible alternatives.
X	Carbonates	Prohibited.
X	Chlorinated hydro-carbons	Prohibited.
X	Chlorophacinone	May not be used directly or in bait stations.
A	Cinnamon	See 'Repellants'.
A	Citrus products	See 'Repellants'.
A	Codling moth Granulosis virus	See 'Biological organisms'.
A	Copper, fixed	See 'Copper products'. Shall be used in a manner that prevents excessive copper accumulation in the soil.
A	Copper hydroxide	See 'Copper products'. Shall be used in a manner that prevents excessive copper accumulation in the soil.
A	Copper products	These include copper hydroxide which is registered for disease control, copper sulphates which can be used as a fungicide, Bordeaux mix, and copper oxychloride.  Shall be used in a manner that prevents excessive copper accumulation in the soil. Build up of copper in soil may prohibit future use. Use with caution.
A	Copper sulphate	See 'Copper products'. Shall be used in a manner that prevents excessive copper accumulation in the soil.
A	Copper oxides	See 'Copper products'. Shall be used in a manner that prevents excessive copper accumulation in the soil.
A	Copper oxychloride	See 'Copper products'. Shall be used in a manner that prevents excessive copper accumulation in the soil.

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
A	Corn gluten meal	Must be from non genetically engineered plants.
X	Detergents	Prohibited for uses other than as equipment cleaners
A	Diatomaceous earth	Only non-heated forms may be used. Use a dust mask when applying to prevent lung irritation. Make sure no synthetic pesticides or synergists are added.
X	Diphacinone	May not be used directly or in bait stations.
A	Dormant oils	Allowed for use as a dormant spray on woody plants only. May not contain any prohibited insecticides or other ingredients.
A	Eggs	See 'Repellants'.
A	Essential oils	See 'Plant Extracts'
X	Ferric and ferrous compounds	Prohibited for pest or weed control purposes.
A	Fiber row covers	Shall not be incorporated into the soil or left in the field to decompose: shall be removed at the end of the growing season.
A	Flame torches	Allowed for vegetation control.
X	Formaldehyde	Prohibited.
X	Fungicides, synthetic	All synthetic fungicides that are not explicitly allowed or restricted are prohibited.
A	Garlic	See 'Repellants'.
X	Genetically engineered organisms	Prohibited in any form.
A	Granulosis	See 'Biological organisms'
A	Grass clippings	See 'Mulches'
A	Hair	See 'Repellants'
A	Hay	See 'Mulches'.
X	Herbicides, synthetic	Prohibited unless specifically allowed.
X	Hot lime	Prohibited. Also known as calcium hydroxide.
X	Hydrated lime	Prohibited.
A	Hydrogen peroxide	Allowed for use as a fungicide once approved by PMRA.
A	Infrared radiation (heat, light)	Allowed for vegetation control.
A	Insecticidal soap	Insecticidal soaps consisting of fatty acids derived from animal or vegetable oils are allowed.
X	Ionizing radiation	For example: irradiation or microwave.
X	Iron compounds	Prohibited for pest or weed control purposes.
A	Kaolin clay	Allowed

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
X	Killed microbial pesticides	These have been genetically engineered and are therefore prohibited.
A	Latex paint , interior	Latex paint is allowed as a tree seal and on tree trunks to protect against southwest disease.
X	Lime, hot	Also known as calcium hydroxide. Prohibited.
X	Lime, slaked	Prohibited
A	Lime sulphur	Calcium polysulphide. Foliar application as a fungicide is allowed on a restricted basis. May be used as an insecticide only if there are no feasible alternatives.
X	Methyl bromide	Prohibited.
X	Methyl Sulphoxide	Prohibited
A	Microbial inoculants	See 'Microbial products'.
A	Microbial products	Allowable microbial products include Rhizobium bacteria, mycorrhizal fungi, Azolla, yeast and other microorganisms on compost, plants, seeds, soils and other components of the organic operation.  Ionizing radiation is allowed for use on peat moss carrier only, before addition of microbial inoculants. Radiation is otherwise prohibited. Genetically engineered organisms or viruses are not allowed. Microbial products are prohibited if the final product contains synthetic preservatives such as sodium sulphite, or they are fortified with otherwise prohibited plant nutrients.
X	Micronutrients, (natural and synthetic)	Micronutrients may not be used as a defoliant herbicide, or desiccant.
A	Milk	Must not contain substances that are not allowed.
X	Mineral oils	Prohibited
X	Moth balls/crystals	Naphthalene and paradichlorobenzene are prohibited.
A	Mulches (allowed)	Organic matter in the form of plant residues from organic sources is allowed for mulching.  Non-organic sources of straw, leaves, grass clippings, wood chips, sawdust or hay shall be free of pesticides and other contaminants.  Plastic mulches: Shall not be incorporated into the soil or left in the field to decompose; shall be removed at the end of the growing season.  Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
X	Mulches (prohibited)	Newspaper mulch: Glossy paper and coloured inks are prohibited.  Plastic mulches: use of polyvinyl chloride as plastic mulch or row cover is prohibited.
X	Naphthalene	Prohibited

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
A	Neem extract, powder and seeds	Allowed when registered for use in Canada
A	Newspaper (allowed)	Plain paper and paper printed with vegetable based inks is allowed as a mulch. May cause build-up of aluminum. Use with caution.
X	Newspaper (prohibited)	Coloured or glossy paper is prohibited for use as a mulch.
X	Nicotine	Prohibited.
A	Oils, vegetable	See 'Vegetable oils'.
X	Oils, petroleum based	Prohibited.
X	Organo-chlorines	Prohibited.
X	Organo-phosphates	Prohibited.
A	Paper (allowed)	Plain paper and paper printed with vegetable based inks is allowed as a mulch. May cause build-up of aluminum. Use with caution.
X	Paper (prohibited)	Coloured or glossy paper is prohibited for use as a mulch.
X	Paradichloro-benzene	Prohibited.
X	Pelargonic acid	Prohibited.
A	Pelletising materials (allowed)	Clay, gypsum or other non-synthetic coatings.
X	Pelletising materials (prohibited)	Plastic polymers and other synthetic substances.
A	Peracetic acid	For use to control fire blight bacteria, once it is registered for that use in Canada
X	Pesticides, synthetic	All synthetic pesticides not explicitly allowed or restricted are prohibited.
X	Petroleum distillates (prohibited)	All petroleum distillates are prohibited for vegetation control.
A	Pheromones	From natural sources only in traps or dispensers
A	Pine oil and resin	See 'Plant extracts'
X	Piperonyl butoxide	Prohibited as a synergist in botanical products. Although this material is derived from a plant source originally, it undergoes a substantial molecular change during its extraction and processing.
A	Plant extracts, oils and preparations	Allowed for pest and disease control once registered for that use in Canada
A	Plant protectants, natural	Substances that protect plants from harsh environmental conditions such as frost and sunburn, from infection, from the buildup of dirt on leaf surfaces, or from injury by a pest. Natural substances are allowed including diatomaceous earth, pine oil, pine resin and yucca. Interior latex paint and white wash are allowed for use on trees to protect against sunburn and southwest disease.

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
X	Plant protectants, synthetic	All synthetic plant protectants are prohibited unless specifically allowed.
A	Plastic for row covers and solarization	Shall not be incorporated into the soil or left to decompose: must be removed at the end of the growing season. Use of polyvinyl chloride is prohibited for this application.
A	Potassium bicarbonate	For disease control where legally registered.
A	Predator scents	Allowed as a repellent provided synthetic additives are not used.
X	Pruning Paints	Prohibited
X	Pyrethroids, synthetic	Prohibited
A	Pyrethrum	There are currently no pyrethrum products registered in Canada that do not contain synthetic contaminants. Pyrethrin is the active ingredient in products licensed for use as insecticides. Currently the only Pyrethrin product without the prohibited Piperonyl butoxide is allowed for use in mushroom production only.
A	Repellants	Acceptable if derived from a natural source such as sterilized blood meal, rotten eggs, hair or predator scents provided synthetic additives are not used.
A	Rodent traps	Mechanical traps are acceptable but not with synthetic baits.
X	Rodenticides, anti-coagulant	Prohibited
A	Rotenone	Shall not be combined with unacceptable formulants. There are only a few domestic products registered for use in Canada. See "Botanical pesticides" for restrictions.
A	Saponins	Saponins derived from plants are allowed as wetting agents.
X	Salt, table	Sodium chloride. Prohibited.
A	Sawdust & wood chips.	From untreated and unpainted wood. Shall be free from prohibited substances
A	Seed treatments	Non-synthetic and allowed substances, such as microbial products, kelp, yucca, gypsum and various clays are allowed.
A	Semiochemicals	See 'Pheromones'. Other semiochemicals shall be non-synthetic and shall not be combined with synthetic pesticides.
A	Soaps	Insecticidal soaps consisting of fatty acids derived from animal or vegetable oils are allowed.
A	Soaps, ammonium	For use as a large animal repellent only. No contact with soil or edible portion of crops.
A	Sodium bicarbonate	See 'Baking Soda'
X	Sodium chlorate & sodium chloride	Prohibited.
X	Sodium fluoaluminate mined and/or reacted	Prohibited.

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
X	Sodium sulphite	Used as a preservative. Prohibited.
X	Soil fumigants, synthetic	Prohibited.
A	Spinosad	See 'Biological organisms'.
A	Steam	Allowed for vegetation control.
A	Sterile insect	See biological controls.
A	Sticky traps and barriers	Shall not contain prohibited pesticides or other prohibited substances.
A	Straw	Allowed if free of pesticides and other contaminants.
X	Streptomycin, Streptomycin sulphate	Prohibited.
A	Sulphur, elemental	Sulphur smoke bombs used for rodent control shall be used in conjunction with other methods, and only when a full pest control program is maintained but temporarily overwhelmed
A	Sulphur, elemental	Allowed for foliar use only.
A	Sulphur dioxide	Allowed for use in sulphur smoke bombs for control of underground rodents.
A	Summer oils	Allowed as suffocating or stylet oils on foliage once they are registered for that use in Canada.
A	Surfactants	See 'Soaps' and 'Detergents'
X	Terramycin	Oxytetracycline calcium complex. See "Antibiotics" . Prohibited.
X	Toluene	Prohibited.
X	Transpiration blockers, synthetic	Prohibited.
A	Traps	May not be combined with otherwise prohibited synthetic pesticides.
A	Tree seals	Plant or milk-based paints are recommended but interior latex paints may be used. Other petroleum substances may be used if there is no alternative. Shall not be combined with fungicides or other synthetic chemicals.
X	Urea	All uses prohibited, including as an inert ingredient.
A	Vegetable oils	Allowed as spreader-stickers, surfactants and carriers. Shall not contain prohibited ingredients.
A	Vinegar	Spot treat via direct application to plant foliage. Broadcast application in planted areas is prohibited.
A	Virus sprays	Codling moth Granulosis virus is acceptable. No genetically engineered viruses are allowed.
A	Vitamin D-3 (Cholecalciferol)	Vitamin D-3 cannot be the sole means of rodent control. Precautions must be taken to prevent killing non-target animals.

## List 2: Landscape Pest Control Products

Use	Name of Material	ANNOTATION
A	Water, reclaimed	Reclaimed water must comply with federal, provincial and local standards and may be used only on non-edible plant parts, and which are not for human consumption. Use on edible plant parts and root crops is prohibited. Chlorinated water must meet the 4-ppm residual chlorine standard.
X	Weed oils	All forms are prohibited.
A	Weed torches	Allowed for vegetation control.
A	Wetting agents	Natural wetting agents, including soaps, saponins and microbial wetting agents are allowed. See 'Soaps' and 'Detergents'
A	Wood chips and shavings	From untreated and unpainted wood only. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
A	Yucca products	Allowed. See 'Plant protectants'.
X	Xylene	Prohibited.
X	Zinc pellets	Prohibited

### List 3: Construction Materials and Related Products

Use	Name of Material	ANNOTATION
X	Ammonium lignosulphate	Prohibited.
X	Arsenate-treated lumber	Includes copper chromium arsenate. Existing arsenate-treated lumber does not need to be removed and since problems with disposal of treated posts is part of the concern with them, recycling of existing posts within the landscape is allowed. Arsenate-treated lumber cannot be in contact with soil used to grow vegetables (boxed beds).
A	Borate	Sodium tetraborate and octaborate may be used as wood preservatives. Only mined sources acceptable.
A	Calcium lignosulphate	Allowed as a dust suppressant or inert ingredient. See 'Lignin sulfonates'
A	Clay products	Allowed.
A	Concrete products	Fresh concrete may temporarily change the soil pH in its vicinity. Appropriate protection measures should be taken.
X	Cooper chromium arsenate	Prohibited.
R	Copper hydroxide	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper oxides	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper oxychloride	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper sulphate	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper zinc chromate	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
X	Creosote	Prohibited.
A	Dust suppressants(allowed)	Water, lignin sulphonates and non-synthetic plant, mineral, or animal based materials. See 'Lignin sulphonates'.
X	Dust suppressants (prohibited)	All materials for dust suppression not specifically allowed are prohibited including, but not limited to asphalt and all petroleum products.
A	Irrigation products	Polyethylene (Poly) and polyvinyl chloride (PVC) products are allowed for use in ornamental landscapes.
A	Lignin sulphonates	Lignosulphonic acid, calcium lignosulphate and sodium lignosulphate. Allowed as a dust suppressant. Ammonium lignosulphate is prohibited.
A	Lignosulphonic acid	Allowed as a dust suppressant or inert ingredient.
R	Limestone	Allowed where the resulting pH change of the soil has no or minimal negative impact on the environment.
X	Pentachlorophenol	Prohibited.

### List 3: Construction Materials and Related Products

Use	Name of Material	ANNOTATION
A	Polyethylene (Poly)	Allowed for irrigation systems in ornamental landscapes
A	Polyvinyl chloride (PVC)	Allowed for irrigation systems in ornamental landscapes.
A	Pressure treated lumber	See 'Wood preservatives'  Copper chromium arsenate (CCA) lumber is prohibited as described in "Arsenate treated lumber". Creosote and pentachlorophenol treated lumbars are prohibited.
A	Rock, natural	Allowed.
A	Sodium lignosulphate	Allowed as a dust suppressant or inert ingredient.
A	Sodium octaborate	Allowed as wood preservatives. Only mined sources acceptable.
A	Sodium tetraborate	Allowed as wood preservative. Only mined sources acceptable.
A	Wood preservatives (allowed)	Sodium octaborate and sodium tetraborate are allowed  Copper hydroxide, copper oxides, copper oxychloride, copper sulphate and copper zinc chromate are allowed for use as wood preservatives. Shall be used in a manner that prevents excessive copper accumulation in the soil. Build up of copper in soil may prohibit future use. Use with caution.
X	Wood preservatives (prohibited)	Copper chromium arsenate, creosote, and pentachlorophenol are prohibited.

## List 4: Cleaners

Use	Name of Material	ANNOTATION
A	Acetic acid, non-synthetic	Food grade acetic acid for use as drip irrigation cleaner, as an equipment cleaner, and as an adjuvant to adjust the pH of sprays.
A	Alcohol	Non-synthetic ethyl alcohols are allowed. Synthetic sources of ethyl and isopropyl alcohols may be used only as disinfectants or formula ingredients.
A	Alcohol, ethyl (ethanol)	Permitted for use as a disinfectant. See 'Alcohol'
A	Alcohol, isopropyl	Permitted for use as a disinfectant. See 'Alcohol'
A	Alkali carbonates and bicarbonates	For disinfecting greenhouse facilities
A	Ascorbic acid, non-synthetic	Used for cleaning irrigation lines, and for adjusting the pH of sprays.
A	Baking soda	For use as a cleaning agent for equipment used in the production and processing of food.
X	Benzene	Prohibited.
A	Bleach	Residual chlorine levels in the water of the following substances shall not exceed the maximum residual disinfectant limit under federal and provincial regulations: <ul style="list-style-type: none"> <li>• Calcium hypochlorite</li> <li>• Chlorine dioxide</li> <li>• Sodium hypochlorite</li> <li>• Ozone</li> <li>• Hydrogen peroxide</li> </ul> Not to exceed 10% in solution
X	Calcium carbide	Prohibited.
A	Calcium hypochlorite	See 'Bleach'.
A	Calcium oxide	Also known as quick lime or hot lime. For disinfecting greenhouse facilities only.
A	Caustic potash	Also known as potassium hydroxide and lye. For disinfecting growing facilities and structures
A	Chlorine	See 'Bleach'.
A	Citric acid, natural	Used as drip irrigation cleaner, equipment cleaner and pH adjuster. Corrosive for soft metals.
A	Detergents	Includes soaps -- Biodegradable only (whose biodegraded components are not more harmful than the original components). Allowed for use as equipment cleaners, including equipment used in the production and processing of food.
A	Drip irrigation cleaners (allowed)	Preferred drip irrigation cleaners include vinegar, citric acid and other naturally occurring acids. Include bleach and detergents. See 'Bleach' and 'Detergents'

## List 4: Cleaners

Use	Name of Material	ANNOTATION
X	Drip irrigation cleaners(prohibited)	Prohibited drip irrigation cleaners includes nitric, phosphoric, and sulphuric acids.
A	Equipment cleaners (allowed)	Allowed substances include acetic acid, carbonic acid, citric acid, hydrogen peroxide, soap, water and other non0synthetic cleaners.  Bleach and detergents are restricted for cleaning spray tanks and other farm equipment. See 'Bleach' and 'Detergents'.
X	Equipment cleaners (prohibited)	All synthetic equipment cleaners that are not explicitly allowed or restricted are prohibited. Aromatic petroleum solvents are prohibited.
A	Ethanol	Permitted for use as a disinfectant.
A	Ethyl alcohol,non-synthetic	Allowed
A	Ethyl alcohol,synthetic	Permitted for use as a disinfectant.
X	Genetically engineered organisms	Prohibited in any form.
A	Hydrogen peroxide	Shall be hydrogen peroxide based solution for food use (hydrogen water). Also see 'Bleach'
A	Iodine	Non-elemental only; not to exceed 5% solution, e.g. iodophors
A	Isopropyl alcohol	Permitted for use as a disinfectant.
A	Lime	Allowed
A	Lye	Also known as caustic potash and potassium hydroxide. For disinfecting greenhouses only. Prohibited for use in crop production such as for adjusting the pH.
A	Magnesium chloride	Natural sources only.
A	Methyl alcohol, non-synthetic	Allowed
X	Methyl alcohol, synthetic	Prohibited.
X	Naphthalene	Prohibited.
X	Nitric acid	Prohibited.
A	Ozone	See 'Bleach'
X	Pelargonic acid	Prohibited.
X	Pentachloro-phenol	Prohibited.
A	Peracetic acid	For us in disinfecting equipment, seed and asexually propagated planting material, once it is registered for that use in Canada.
X	Petroleum distillates	Prohibited.
X	Petroleum solvents, aromatic	Prohibited.

## List 4: Cleaners

Use	Name of Material	ANNOTATION
A	pH buffers	Shall be from a natural source such as citric acid, or vinegar. Lye and sulphuric acid are prohibited.
A	Phosphoric acid	As equipment cleaner, only in accordance with the manufacturer's written instruction, provided no direct contact with organically managed land occurs.
X	Piperonyl butoxide	Prohibited as a synergist in botanical products. Although this material is derived from a plant source originally, it undergoes a substantial molecular change during its extraction and processing.
A	Potassium hydroxide	Also known as caustic potash and lye. For disinfecting greenhouse facilities only.
A	Potassium permanganate	Not to exceed 1% solution
A	Quick lime	Also known as burned lime or calcium oxide. For disinfecting greenhouse facilities only.
A	Rubbing alcohol (isopropyl alcohol)	Permitted for use as a disinfectant.
A	Soaps	See 'Detergents'
A	Soap-based algaecide / demisters	Algicides, disinfectants and sanitizers including irrigation cleaning systems that do not contain prohibited substances.
A	Sodium bicarbonate	Permitted for use as a cleaning agent for equipment used in the production and processing of food.
A	Sodium borate	Allowed
X	Sodium chlorate & sodium chloride	Prohibited.
A	Sodium hypochlorite	See 'Bleach'
A	Sodium hydroxide	For disinfecting only. Avoid contact with strong acids. Cannot be used on aluminum or like alloys.
X	Sulfuric acid	Prohibited.
A	Surfactants	See 'Soaps' and 'Detergents'
X	Toluene	Prohibited.
X	Urea	All uses prohibited, including as an inert ingredient.
A	Vinegar	Allowed
A	Water, reclaimed	Reclaimed water must comply with federal, provincial and local standards and may be used only on non-edible plant parts, and which are not for human consumption. Use on edible plant parts and root crops is prohibited.
A	Wetting agents	Natural wetting agents, including soaps, saponins and microbial wetting agents are allowed. See 'Soaps' and 'Detergents'.
X	Xylene	Prohibited.

