

# **ORGANIC LAND CARE STANDARD**

First Edition - 2003



**SOCIETY OF  
ORGANIC URBAN  
LAND CARE PROFESSIONALS  
(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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**Organic Land Care Standard – First Edition, 2003**

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# Acknowledgements

The Standard Review Committee of the Society of Organic Urban Land Care Professionals 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 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 of Organic Urban Land Care Professionals 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 Standards 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 Landscape Managers 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 Landscape Managers certified by the Society of Organic Urban Land Care Professionals. 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 of Organic Urban Land Care Professionals (SOUL) certifies individuals, not landscapes, plants or product of any kind.

### Initial Certification Requirements

A Certified Organic Landscape Manager 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 Landscape Manager 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 Landscape Manager 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 Landscape Manager 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.

Some brand names may be included in the lists as examples, and no endorsement of the product by SOUL is implied.

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 Landscape Managers must employ these practices in the provision of Organic Land Care.

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

**Prohibited:** means that Certified Organic Landscape Managers 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**, **restricted**, or **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) Genetically engineered organisms and their products.

**Allowed:** means Certified Organic Landscape Managers may use these products in Organic Land Care.

**Restricted:** means Certified Organic Landscape Managers may only use these products within the indicated limitations to their use in Organic Land Care. These products are known to contain prohibited substances under some circumstances, or to create undesired effects in the landscape unless used in a specific fashion.

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

## Lists of Regulated Products and Materials

These lists have been adapted from the Crop Production Materials List of BOOK 2 : British Columbia Certified Organic Management Standards, 2002, Certified Organic Associations of B.C.

The information in these lists is substantially the same, **but not identical**. Information has been deleted, added and modified to reflect different product use in Organic Land Care. These lists must not be referred to in any practices restricted by the British Columbia Certified Organic Management Standards.

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. Other products**, such as products used in conjunction with other materials and usually not directly applied to plants or the soil; for instance: adjuvants, equipment cleaners, and plant growth regulators

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

### Abbreviations:

#### Status:

A	Allowed
R	Restricted
X	Prohibited

#### Use:

AP	Vertebrate animal pest control
C	Construction material
D	Plant disease control
F	Fertilizer
G	Growing medium
I	Invertebrate animal pest control - insect, mite, mollusk, and crustacean
M	Mulch
N	Nematode control
O	Other
W	Weed control

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

Status	Name of Material	Use	ANNOTATION
R	Agar	G	For use in initial mushroom spawn production
A	Alfalfa meal & pellets	F	Allowed.
A	Algae	F	See 'Aquatic plant products'.
A	Amino acids, non-synthetic	F	Amino acids produced by plants, animals and micro-organisms that have not been genetically engineered, as defined by OMRI, and are extracted or isolated by hydrolysis, or by physical or other non-chemical means are considered to be non-synthetic. Non-synthetic amino acids may be used as plant growth regulators or chelating agents.
X	Amino acids (synthetic)	F	Amino acids that are considered to be synthetically produced or produced from genetically engineered organisms are prohibited.
X	Ammonia products	F	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	F	Includes ammonium molybdate, ammonium pentaborate, ammoniated zinc chloride, and ferrous ammonium sulphate. See 'Micronutrients, synthetic'.
X	Ammoniated zinc chloride	F	Prohibited for plant nutrition.
X	Ammonium lignosulphate	(F) O	Prohibited.
X	Ammonium molybdate	F	Prohibited for plant nutrition.
X	Ammonium nitrate	F	Prohibited for plant nutrition.
X	Ammonium pentaborate	F	Prohibited for plant nutrition.
X	Ammonium phosphate	F	Prohibited for plant nutrition.
X	Ammonium soaps	F	Prohibited for plant nutrition.
X	Ammonium sulphate	F	Prohibited for plant nutrition.
A	Animal by-products and materials	F	Parts of an animal and animal by-products that have specific uses in soil fertility. Includes meat meal, bone meal, and feather meal. Animal urine must be composted before use. Leather by-products are prohibited. See listings under individual product names for more information.
R	Animal urine	F	Must be composted before use.
X	Anhydrous ammonia	F	Prohibited for plant nutrition.
X	Aqua ammonia	F	Prohibited for plant nutrition.

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

Status	Name of Material	Use	ANNOTATION
A	Aquatic plant products	F	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. Aquatic plant products are prohibited if they contain other synthetic preservatives, such as formaldehyde or are fortified with otherwise prohibited plant nutrients.
A	Aragonite	F	Allowed
A	Ascorbic acid	F	Used as a growth promoter.
R	Ash	F	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	F	Used as a potassium source
R	Basic copper sulphate	F	May be used to correct documented copper deficiencies only.
R	Basic Slag	F	Used as a phosphate source
A	Bentonite	F	See mined minerals, unprocessed.
A	Biodynamic preparations for compost	F	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	F	Horn manure spray (Prep. 500) or horn silica (Prep. 501). Other Biodynamic preparations are listed under "Landscape Pest Control Products".
X	Biosolids	F	Prohibited. See 'Sewage sludge'.
A	Biotite	F	Allowed. See 'Mined minerals, unprocessed'.
A	Blood and blood meal	F	Allowed
A	Bone meal	F	Allowed
A	Bones	F	Allowed
R	Borate	F	See 'Boron products (restricted)' and 'Boron products (prohibited)'.
R	Borax	F	Also known as sodium tetraborate. May be used only with a documented boron deficiency. See 'Boron products (restricted)'.
X	Boron products (prohibited)	F	Ammonium pentaborate is prohibited.
R	Boron products (restricted)	F	The following soluble boron products may be used: sodium tetraborate (borax and anhydrous), and sodium octaborate. May be used only with a documented boron deficiency.

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

Status	Name of Material	Use	ANNOTATION
X	Burned lime	F	Prohibited as a soil amendment or source of plant nutrients.
A	Calcium carbonate (allowed)	F	Oyster shell flour, limestone, dolomite (not slaked) aragonite, eggshell meal, lime from sugar processing and mined CaCO <sub>3</sub> are acceptable.
X	Calcium carbonate (prohibited)	F	Calcium products which have been used in controlled atmosphere storage are prohibited.
X	Calcium chloride	F	Prohibited for soil application because of very high chloride content.
X	Calcium hydroxide	F	Prohibited as a fertilizer. Also known as hot lime.
A	Calcium lignosulfonate	O	Lignin sulfonate. See 'Chelates (allowed)'
A	Calcium, natural sources	F	Allowed.
X	Calcium nitrate	F	Prohibited.
X	Calcium oxide	F	Also known as Burned Lime. Prohibited as a soil amendment or source of plant nutrients.
X	Calcium hydroxide	F	Also known as Slaked Lime. Prohibited as a soil amendment or source of plant nutrients.
A	Calcium sulphate	F	See 'Gypsum'.
X	Calcium synthetically derived	F	Prohibited.
R	Cannery wastes	F	May contain substantial pesticide residues. Use only if documented to be uncontaminated by pesticides, or thoroughly composted prior to use.
A	Cardboard	M	Cardboard, which is not waxed or impregnated with fungicide, may be used as mulch or compost ingredient.
R	Cardboard, waxed	F	Paraffin contained in waxed cardboard used as a mulch or compost ingredient cannot exceed 0.75% by weight of the feed stock.
X	Cardboard, fungicide impregnated	M	Fungicide impregnated cardboard is prohibited for use as a mulch or compost ingredient.
	Carriers	O	See 'Adjuvants (allowed), (restricted), or (prohibited).'
A	Chelates (allowed)	(F) O	Natural chelates (including but not limited to amino acids, calcium lignosulphate, citric acid, sodium lignosulphate, tartaric acid, and other di- and tri- acid chelates) ,lignin sulfonate, lignosulfonic acid, are allowed.
X	Chelates, synthetic	(F) O	Synthetic chelating agents are not allowed with micronutrients unless they are specifically listed for such use. Some synthetic chelates are allowed on a case-by-case basis for use only with micronutrients sprays for a documented deficiency. Prohibited chelating agents include DTPA, EDTA, HEDTA, NTA, glucoheptonic acid and its salts,

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

Status	Name of Material	Use	ANNOTATION
			and synthetic amino acids.
X	Chilean nitrate	F	See 'Sodium nitrate'.
A	Citric acid	(F) O	See 'Chelates (allowed)' Allowed as a pH buffer.
A	Clay	F/G	See mined minerals, unprocessed.
	Coal	F	See 'Humates'
A	Coir	G	Allowed
A	Colloidal Phosphate	F	Allowed
A	Compost	F/G/ M	<p>Composting refers to the managed aerobic process by which organic materials are digested by microorganisms over sufficient time and/ or with sufficient heat to effectively stabilize the nutrients, reduce pesticide residues, and kill weed seeds and pathogens.</p> <p>Thermophilic aerobic compost piles must reach a temperature of 130-140 ° F. (55-60 ° Centigrade) for a period of several days and then finish decomposing for about 6 weeks. Compost should remain moist but not 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 commodities 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. A list of the main ingredients in any purchased compost not reviewed by OMRI should be obtained. See also: 'Microbial products' for information on compost starters, 'Sewage sludge', and 'Mushroom compost'.</p>
A	Compost tea	F	Compost must be made from material that meets compost standards.
X	Copper ammonia base	F	Prohibited as a source of copper for plant nutrients.
X	Copper ammonium carbonate	F	Prohibited as a source of copper for plant nutrients.
X	Copper nitrate	F	Prohibited as a source of copper for plant nutrients.
R	Copper products (restricted)	F	Basic copper sulphate, copper oxide, copper sulphate, and copper oxysulfate may be used to correct documented copper deficiencies.

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

Status	Name of Material	Use	ANNOTATION
X	Copper products (prohibited)	F	Copper ammonia base, copper ammonium carbonate, copper nitrate and cuprous chloride are prohibited as sources of copper for plant nutrients.
R	Copper oxide	F	May be used to correct documented copper deficiencies only.
R	Copper oxysulfate	F	May be used to correct documented copper deficiencies only.
R	Copper sulphate	F	May be used to correct documented copper deficiencies only.
R	Corn gluten meal	F	Must be from non genetically engineered plants.
R	Corn meal	F	Must be from non genetically engineered plants.
X	Cuprous chloride	F	Prohibited as a source of copper for plant nutrients.
	Cytokinins	(F) O	See 'Growth regulators (allowed) and (prohibited)'.
A	Di-acid chelates	(F) O	See 'Chelates (allowed)'
X	Dolomite, fired	F	Magnesium oxide. Prohibited.
A	Dolomite, mined	F	Magnesium carbonate and calcium carbonate. May cause build-up of magnesium. Use with caution. Must be from a natural source.
X	Dolomite, slaked	F	Magnesium hydroxide. Prohibited.
X	DTPA	(F) O	Prohibited as a chelating agent in fertilizers.
X	EDTA	(F) O	Prohibited as a chelating agent in fertilizers.
A	Egg shell meal	F	Allowed.
A	Enzymes	F	Acceptable if derived microbiologically from natural materials and not fortified with synthetic plant nutrients.
A	Epsom salts	F	See 'Magnesium sulphate'.
A	Ethoxyquin	(F) O	Is a "Material Under Consideration". It is used as an antioxidant in fertilizer meals to prevent rancidity of their oil constituents. OMRI is considering prohibiting ethoxyquin as a stabilizer for fish products and aquatic plant products.
P	Eucalyptus oil	(F) O	Prohibited as a fertilizer ingredient
A	Feather meal	F	Allowed if composed of feather meal only and unadulterated with non-allowed materials.
A	Feldspar	F	Allowed. See 'Mined minerals, unprocessed'.
R	Ferric and ferrous compounds (restricted)	F	Includes ferric oxide, ferric sulphate and ferrous sulphate. See 'Iron products (restricted)' and 'Micronutrients, synthetic (restricted)'.

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

Status	Name of Material	Use	ANNOTATION
X	Ferric and ferrous compounds (prohibited)	F	Includes ferric chloride and ferrous ammonium sulphate. See 'Iron products (prohibited)' and 'Micronutrients, synthetic (prohibited)'.
X	Ferric chloride	F	Prohibited for use as a source of plant nutrients.
R	Ferric oxide	F	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
R	Ferric sulfate	F	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
X	Ferrous ammonium sulphate	F	Prohibited for use as a source of plant nutrients.
R	Ferrous sulphate	F	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
A	Fertilizers, blended (allowed)	F	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.
R	Fertilizers, blended (restricted)	F	If the product contains at least one restricted and no prohibited materials. When using blended fertilizers containing restricted ingredients the regulations for all of the restricted ingredients must be adhered to.
X	Fertilizers, blended (prohibited)	F	If the product contains any prohibited materials.
A	Fish emulsion or solubles	F	See 'Fish products'.
R	Fish farm wastes	F/G/M	May contain substantial pesticide residues. Use only if documented to be uncontaminated by pesticides, or thoroughly composted prior to use.
A	Fish hydrolysate	F	See 'Fish products'.
A	Fish meal, powder	F	See 'Fish products'.
A	Fish products	F	Liquid fish products can be pH adjusted using citric, sulphuric, 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.
A	Foliar sprays (allowed)	F	Allowed if composed entirely of allowed materials. Foliar feeding programs are not substitutes for a soil building program.
R	Foliar sprays (restricted)	F	Restricted if product contains at least one restricted material and no prohibited materials.
X	Foliar sprays (prohibited)	F	Prohibited if product contains any prohibited materials.
X	Formaldehyde	F	Prohibited.

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

Status	Name of Material	Use	ANNOTATION
A	Fulvic acids	F	Fulvic acids are the fractions of humates soluble at neutral to acid pH. May be extracted from allowed humates by the use of hydrolysis or naturally occurring acids. See 'Humates'.
R	Fritted trace elements	F	Use only if soil tests show a deficiency.
X	Genetically engineered organisms	F	Prohibited in any form
A	Gibberellic acid	O	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'.
A	Glaucanite	F	Also known as Greensand. See 'Mined minerals'.
X	Glucosheptonic acid	(F) O	Glucosheptonic acid and its salts are prohibited as chelating agents in fertilizers.
A	Granite dust (allowed)	F	See 'Mined minerals'. Sources that are mixed with petroleum products, such as from stone engraving, are prohibited.
X	Granite dust (prohibited)		Sources that are mixed with petroleum products, such as from stone engraving, are prohibited.
A	Grass clippings	M	Allowed as a mulch if free of pesticides and other contaminants.
A	Green manure	F	See 'Plants'.
A	Greensand	F	Also known as Glaucanite. See 'Mined minerals'.
A	Growth regulators for plants (allowed)	(F) O	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)	(F) O	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	F	Must be decomposed and dried deposits from wild bats or birds. Domesticated fowl excrement is considered 'manure'; not 'guano'. See 'Manure, raw' for regulations on uncomposted manure. See "Compost" for the definition of compost.
X	Gypsum, by-product	F	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	F	Calcium sulphate. Only mined forms are acceptable.
A	Hay	M	Allowed as a mulch if free of pesticides and other contaminants.
X	HEDTA	(F) O	Prohibited as a chelating agent in fertilizers.

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

Status	Name of Material	Use	ANNOTATION
A	Hoof and horn meal	F	Allowed.
	Hormones	(F) O	See 'Growth regulators for plants (allowed) and (prohibited)'.
X	Hot lime	F	Prohibited. Also known as calcium hydroxide.
X	Human excrement	F	Prohibited.
A	Humates	F	Humates are usually natural deposits, which are mined and may have high trace mineral contents. Acceptable if derived from leonardite, lignite, or coal; not acceptable if fortified with synthetic nutrients.
A	Humic acid derivatives (allowed)	F	Extracts from non-synthetic humates by hydrolysis or other non-synthetic method are allowed. Potassium hydroxide may also be used as an extractant but may not be used to fortify the potassium analysis. All other sources of humic acid derivatives are prohibited.
X	Humic acid derivatives (prohibited)	F	Humic acids extracted by ammonium hydroxide, sodium hydroxide or synthetic bases other than potassium hydroxide are prohibited. Humic acid derivatives fortified with prohibited synthetic fertilizers, including potassium hydroxide are prohibited.
X	Hydrated lime	F	Also known as Slaked Lime. Prohibited as a soil amendment or source of plant nutrients.
A	Hydrated magnesium sulphate	F	Also known as Epsom salts and Kieserite
A	Hydrogen peroxide	F	Allowed.
A	Inert ingredients (allowed)	O	Minimum risk (EPA list 4) inert ingredients are allowed unless explicitly prohibited.
X	Inert ingredients (prohibited)	O	Inert ingredients of toxicological concern (EPA List 1) and inert ingredients of probable toxicological concern (EPA List 2) are prohibited.
A	Inoculants	F	See 'Microbial products'.
R	Iron citrate	F	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
R	Iron products, restricted	F	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, prohibited	F	Includes ferrous ammonium sulphate, ferric chloride, iron nitrate and synthetic iron phosphate. See micronutrients, synthetic, prohibited.
R	Iron sulphates	F	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.
R	Iron tartrate	F	May be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.

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

Status	Name of Material	Use	ANNOTATION
A	Kelp extracts	F	See 'Aquatic plant products'.
A	Kelp meal	F	Allowed.
A	Kelp, unprocessed	F	Allowed.
A	Kieserite	F	See 'Magnesium sulphate'.
A	Langbeinite	F	Also known as sulphate of potash magnesia. See 'Mined minerals'.
A	Leaf mould	F	Allowed.
X	Leather by-products	F	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.
	Leonardite	F	See 'Humates'.
A	Lignin sulfonate	(F) O	See 'Chelates (allowed)'.
	Lignite	F	See 'Humates'.
A	Lignosulfonic acid	(F) O	See 'Chelates (allowed)'.
A	Lime (allowed)		Lime from sugar processing and mined CaCO <sub>3</sub> are allowed. See 'Calcium carbonate'.
X	Lime, burned	F	Calcium oxide, also known as quicklime.
X	Lime, hot	F	Also known as calcium hydroxide. Prohibited.
X	Lime, slaked	F	Calcium hydroxide. Also known as hydrated lime.
A	Limestone	F	See 'Calcium carbonate'.
X	Lye	O	Prohibited for use in landscapes or plant production such as for adjusting pH.
A	Magnesium carbonate	F	Naturally occurring in dolomite and magnesite.
R	Magnesium chloride	F	Natural sources only.
X	Magnesium oxide	F	Produced by heating magnesium carbonate.
A	Magnesium sulphate, mined	F	As Kieserite or Epsom salts. See 'Mined minerals'.
R	Magnesium sulphate, synthetic	F	As synthetically produced Epsom salts. Allowed for use with a documented magnesium deficiency.
R	Manganese products (restricted)	F	Manganous oxide and manganese sulphate may be used to correct documented manganese deficiencies. See 'Micronutrients, synthetic (restricted)'.

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

Status	Name of Material	Use	ANNOTATION
X	Manganese products (prohibited)	F	Manganese chloride, manganese nitrate and potassium permanganate are prohibited. See "Micronutrients, synthetic (prohibited)".
X	Manganese chloride	F	Prohibited.
X	Manganese nitrate	F	Prohibited.
R	Manganese sulphate	F	May be used to correct documented manganese deficiencies.
R	Manganous oxide	F	May be used to correct documented manganese deficiencies.
R	Manure, processed	F	Processed manure products are formulated from raw manure which has been heated to temperatures of over 65 °C for one hour or more, dried to a moisture level of 12% or less, preserved, or frozen. Because these products are highly soluble and have reduced biological activity, they should not be used as a primary source of nutrients.
R	Manure tea	F	Must be made from composted manure. Must not come into contact with edible plant parts. Must be used with other soil building practices.
X	Manure, uncomposted (raw)	F	Prohibited.
A	Manure, composted	F	See 'Compost'.
A	Meat meal	F	Allowed.
A	Mica	F	Allowed. See 'Mined minerals, unprocessed'.
A	Microbial inoculants	F	See 'Microbial products'.
A	Microbial products	F	Microbial products may be used on compost, plants, seeds, soils and other components of the ecosystem. Allowed materials include Rhizobium bacteria, mycorrhizal fungi, Azolla, yeast and other microorganisms. 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, synthetic (prohibited)	F	Synthetic micronutrients in either ammonium, chloride, nitrate or polyphosphate forms are not allowed. See 'Ammoniated micronutrients'. Micronutrients may not be used as a defoliant herbicide, or desiccant. Synthetic carriers, fillers, chelating, and complexing agents not on the list of allowed synthetics are prohibited. See 'Chelates (prohibited)'. These include heavy metals, industrial by-products, fritted glasses, and other incidental ingredients, unless those substances are within established thresholds. See 'Micronutrients, synthetic (restricted)' and 'Trace minerals, natural'.

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Status	Name of Material	Use	ANNOTATION
R	Micronutrients, synthetic (restricted)	F	Use restricted to cases where soil/plant nutrient deficiency is documented by soil or tissue testing, and only as an interim measure while long term plans to correct soil fertility are implemented. Not to be used as a defoliant, herbicide or desiccant. Micronutrients include boron, cobalt, copper, iodine, iron, manganese, molybdenum, selenium, and zinc. Carriers, fillers, chelating agents, and complexing agents must either be non-synthetic or must be on the list of allowed synthetics. See 'Micronutrient , synthetic (prohibited)' and 'Trace minerals natural'.
A	Milk	F	Must not be from cows treated with rBGH
A	Mined minerals, unprocessed	F	A mined mineral must not have undergone any change in its molecular structure thorough heating or combining with other substances. Acceptable if the material is not processed or fortified with synthetic chemicals. Mined minerals are regarded 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 material.
A	Molasses	F	Allowed.
A	Mulch (allowed)	M	Organic matter in the form of plant residues from organic sources is allowed for mulching. See restrictions under 'Plastic mulches', 'Newspaper' and 'Paper' regarding these products. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
R	Mulch (restricted)	F	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.
P	Muriate of potash	F	See 'Potassium chloride'.
R	Mushroom compost	F	May contain substantial pesticide residues if obtained from non-organic mushroom houses. Must be from certified organically grown mushroom production systems that are documented free of contaminants, or aerobically composted prior to use.
A	Newspaper (allowed)	M	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)	M	Coloured or glossy paper is prohibited for use as a mulch or compost ingredient.
X	Niter	F	Also known as potassium nitrate. No mined source of niter has been verified at this time.
X	Nitrate of soda-potash	F	Prohibited.
X	NTA	(F) O	Prohibited as a chelating agent in fertilizers.

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

Status	Name of Material	Use	ANNOTATION
A	Oyster shell flour	F	Ground shells from oysters.
A	Paper (allowed)	M	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)	M	Coloured or glossy paper is prohibited for use as a mulch or compost ingredient.
A	Peat moss	F	Must not contain synthetic wetting agents. Wear a dust mask when working with peat moss as its dust has been shown to contribute to lung infections.
A	Pelletising materials (allowed)	(F) O	Clay, gypsum or other non-synthetic coatings are allowed.
X	Pelletising materials (prohibited)	(F) O	Plastic polymers and other synthetic substances are prohibited.
A	Perlite	F	Allowed.
X	Permanganate of potash	F	Prohibited.
	Plant hormones	(F) O	See 'Growth regulators for plants (allowed) or (prohibited)'.
A	pH buffers (allowed)	O	Must be from a natural source such as citric acid, or vinegar. Lye and sulphuric acid are prohibited.
X	pH buffers (prohibited)	O	Lye and sulphuric acid are prohibited for use as pH buffers.
A	Phosphate rock	F	Must not be fortified or processed with synthetic chemicals.
X	Phosphoric acid, synthetic	F	Prohibited.
X	Piperonyl butoxide	(F) O	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 extracts and preparations	F	Allowed unless otherwise specifically restricted or prohibited. Allowed extractants include cocoa butter, lanolin, animal fats, alcohol, and water.
A	Plants	F	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	M	Prohibited.
R	Pomaces	F	Must be from certified organically grown fruits or vegetables, documented free of contaminants, or aerobically composted prior to use.

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

Status	Name of Material	Use	ANNOTATION
X	Potassium chloride	F	This product which is also known as muriate of potash can result in excessive chloride in soils.
X	Potassium nitrate	F	Prohibited.
X	Potassium permanganate	F	Prohibited.
A	Potassium rock powders	F	Includes basalt, biotite, mica, feldspars, granite and greensand.
A	Potassium sulphate, non-synthetic	F	Only from langbeinite or other natural sources. See 'Mined minerals, unprocessed'.
X	Potassium sulphate, synthetic	F	Includes potassium sulphate produced by acidulation or chemical reaction.
	Potting soil	G	See 'Transplant media (allowed), (restricted) or (prohibited)'.
A	Pumice	F	Allowed.
X	Quicklime	F	Prohibited as a soil amendment or source of plant nutrients.
A	Rock Phosphate	F	See 'Mined minerals, unprocessed'
A	Rock dusts, unprocessed	F	See 'Mined minerals, unprocessed'.
R	Sawdust & wood chips.	F/M	Must not be incorporated into the soil unless composted. Must be from untreated and unpainted wood. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
A	Seaweed and seaweed products	F	See aquatic plant products.
X	Sewage sludge	F	Prohibited.
A	Shells from aquatic animals	F	Allowed.
R	Sodium molybdate	F	To correct documented molybdenum deficiencies. See 'Micronutrients, synthetic'.
X	Sodium nitrate (Chilean nitrate)	F	Prohibited for use as a fertilizer.
R	Sodium octaborate	F	May be used only with a documented boron deficiency.
R	Sodium tetraborate	F	May be used only with a documented boron deficiency.
X	Sodium sulphite	(F) O	Used as a preservative. Prohibited.
A	Soybean meal	F	Must be from non genetically engineered soybeans.
A	Sphagnum moss	F	Must not contain synthetic wetting agents. Observe worker safety precautions.
A	Straw	M	Allowed if free of pesticides and other contaminants.

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Status	Name of Material	Use	ANNOTATION
A	Sugar	F	Allowed
A	Sulphate of potash magnesia	F	From langbeinite or other natural mineral sources. See "Mined minerals, unprocessed"
R	Sulphates of zinc or iron	F	May be used only to correct for deficiencies determined by soil or plant tissue testing. See iron products (restricted).
R	Sulphur	F	Sulphur may be used as a soil amendment where more buffered sources of sulphur are not appropriate, and for foliar application.
X	Sulphuric acid	O	Prohibited as a pH buffer.
X	Super phosphate	F	Prohibited.
A	Tartaric acid	(F) O	See 'Chelates (allowed)'.
P	Tea tree oil	(F) O	Prohibited as a fertilizer ingredient
R	Topsoil, imported	G	Topsoil must not contain residues of prohibited substances. Organic matter should be substantially decomposed and stabilized. The use of sterile and anaerobic soils in landscapes is prohibited.
A	Trace minerals, natural	F	Includes micronutrients from natural sources that are unchelated or chelated by materials listed as allowed. See 'Micronutrients, synthetic (restricted) and (allowed) '.
A	Transplant media (allowed)	O	Must be composed entirely of allowed materials.
R	Transplant media (restricted)	O	Restricted if the product contains at least one restricted and no prohibited materials.
X	Transplant media (prohibited)	O	Prohibited if the product is treated with or contains any prohibited materials.
A	Tri-acid chelates	(F) O	See 'Chelates (allowed)'
R	Vermicasts	F	Must not contain prohibited substances.
A	Vermiculite	F	Allowed.
A	Vinegar	O	Allowed as a pH buffer.
A	Vitamins (allowed)	F	Non-synthetic sources of all vitamins and synthetic sources of vitamins B1, C, and E are allowed.
X	Vitamins, synthetic	F	All synthetic vitamins not explicitly allowed are prohibited. Synthetic forms of vitamins B1, C and E are allowed.
R	Water, reclaimed	O	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.

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

Status	Name of Material	Use	ANNOTATION
A	Wood ash	F	Wood ash must 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'.
R	Wood chips and shavings	F/M	Must not be incorporated into the soil unless composted. Must be from untreated and unpainted wood. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
R	Worm castings	F	Must not contain prohibited substances.
A	Yeast	F	See 'Microbial products'.
A	Yucca products	F,O	Allowed. Must not contain prohibited ingredients.
A	Zeolite	F	See 'Mined minerals, unprocessed'.
X	Zinc ammonium sulfate	F	Prohibited.
X	Zinc chloride	F	Prohibited.
X	Zinc nitrate	F	Prohibited.
R	Zinc products (restricted)	F	Zinc oxide and zinc sulphate may be used to correct a documented zinc deficiency. See 'Micronutrients, synthetic (restricted)'.
X	Zinc products (prohibited)	F	Zinc ammonium sulphate, zinc chloride and zinc nitrate are prohibited. See micronutrients, synthetic, prohibited.
R	Zinc oxide	F	May be used only with a documented zinc deficiency.
R	Zinc sulphate	F	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

Status	Name of Material	Use	ANNOTATION
R	Acetic acid Non-synthetic	W	Spot treat via direct application to plant foliage. Broadcast application in planted areas prohibited.
A	Adjuvants (allowed)	O	Non-synthetic adjuvants and adjuvants on EPA Inert Ingredients List 4 are allowed unless explicitly prohibited elsewhere. Other materials such as aquatic plant products, fish products, and water are allowed as adjuvants. Soaps consisting of fatty acids derived from animal or vegetable oils are allowed as and emulsifiers. Vegetable oils are allowed as spreader-stickers, surfactants and carriers. Plant oils must not contain synthetic pesticides.
R	Adjuvants (restricted)	O	Petroleum distillates and detergents are restricted and must be reviewed on a case-by-case basis. See 'Inert ingredients', 'Petroleum distillates', and 'Wetting agents'.
X	Adjuvants (prohibited)	O	All synthetic adjuvants that are not allowed or restricted are prohibited. Specifically, aromatic petroleum solvents. See 'Inert ingredients'.
R	Ammonium soaps	AP	May be used as an animal repellent -i. e. deer. Cannot be applied to soil or edible portions of plants.
X	Anti-coagulants	AP	Includes diphacinone and chlorophacinone. May not be used directly or in bait stations.
X	Antibiotics (prohibited)	D	Synthetic antibiotics are prohibited unless explicitly allowed.
X	Arsenic	I	Prohibited.
A	Arthropod pathogens	I	See 'Biological control'.
A	Arthropods	I	See 'Biological control'.
X	Aromatic petroleum solvents	O	Prohibited; see 'Inert ingredients'
X	Avermectin	D/I	Prohibited.
R	Azadiractin	I/D/ N	See 'Neem '. Not currently registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.
R	Bacillus thuringiensis	I	Formulations that are genetically engineered or contained in EPA List 1 or 2 inert are prohibited. Currently, the only Bt. formulations allowed in organic practices are dry powders.
X	Bactericides, synthetic	D	All synthetic bactericides that are not explicitly allowed or restricted are prohibited.
R	Baking soda	D	Sodium bicarbonate. Not currently registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
A	Bentonite	D/I	Allowed. Must not have undergone any change in its molecular structure thorough heating or combining with other substances. Acceptable if the material is not processed or fortified with synthetic chemicals
X	Benzene	AP	Prohibited.
A	Biodynamic preparations for disease control	D	Horsetail spray (Prep 508) and horn silica (Prep 501).
A	Biological controls	AP/ D// N/W	Living organisms, including but not limited to: viruses, bacteria, protozoa, fungi, insects, nematodes, plants and animals. No genetically engineered organisms.
X	Bird baits	AP	Prohibited: Poisons used to kill birds.
A	Blood meal	AP	Allowed as a repellent provided synthetic additives are not used.
R	Bordeaux mixes	D	Copper Sulphate and Hydrated Lime. See 'Copper products, restricted'. Must be used in a manner that minimizes copper accumulation in the soil.
A	Boric acid	I	May be used for structural pest control i.e. ants. No direct contact with plants.
R	Botanical pesticides	I	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 must 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 in Organic Land Care are some rotenone products registered for domestic use.
X	Calcium hydroxide	D	Also known as hot lime. Also see 'Lime, hydrated'.
R	Calcium polysulfide	D/I	Foliar application as a fungicide. May be used as an insecticide only if there are no feasible alternatives.
X	Carbonates	I	Prohibited.
	Carriers	O	See 'Adjuvants (allowed), (restricted), or (prohibited).'
A	Chitin nematicides	N	Must be from a natural source such as sea animals. Must not contain prohibited pesticides or other prohibited substances.
X	Chlorinated hydro-carbons	I	Prohibited.
X	Chlorophacinone	AP	May not be used directly or in bait stations.
R	Cholecalciferol	AP	Vitamin D-3 product. Cannot be the sole means of rodent control. Precautions must be taken to prevent killing non-target animals.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
A	Cinnamon	I	Allowed as insect repellent
A	Citrus products	I	Allowed.
A	Codling moth Granulosis virus	I	Allowed.
R	Copper, fixed	D	See 'Copper products (restricted)'. Shall be used in a manner that prevents excessive copper accumulation in the soil.
R	Copper hydroxide	D	See 'Copper products (restricted)'.
R	Copper products (restricted)	D/I	These include Bordeaux mix, copper hydroxide, copper sulphates, and copper zinc chromate, copper oxychloride and copper oxides. These may be used as algacides, bactericides, invertebrate pest control and fungicides. 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. No visible residue is allowed on harvested crops.
X	Copper products (prohibited)	W	Copper products may not be used as a herbicide.
R	Copper sulphate	D	See 'Copper products'.
R	Copper oxides	D/I	See 'Copper products (restricted)'.
R	Copper oxychloride	D/I	See 'Copper products (restricted)'.
R	Copper zinc chromate	D/I	See 'Copper products (restricted)'.
R	Corn gluten meal	W	Must be from non genetically engineered plants.
A	Crab shells	N	Allowed.
X	Cryolite, mined sources	I	See 'Sodium fluoaluminate'.
X	Cryolite, synthetic	I	Very high environmental persistence. See 'Sodium fluoaluminate'.
X	Detergents	O	Prohibited.
R	Diatomaceous earth	I	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	AP	May not be used directly or in bait stations.
R	Dormant oils	D/I	Approved for use as a dormant spray on woody plants only. May not contain any prohibited insecticides or other ingredients. See 'Suffocating oils' and 'Petroleum distillates' for more information.
A	Eggs	AP	Allowed as a repellent.
A	Emulsifiers	O	Soaps consisting of fatty acids derived from animal or vegetable oils are allowed. Also see 'Adjuvants and Inert ingredients (allowed), (restricted) and (prohibited)'.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
X	Endophytic fungi	D/I	Prohibited as a seed treatment.
X	Exhaust fumes	AP	Injection in rodent holes is prohibited.
A	Extractants for plant extracts (allowed)	O	Cocoa butter, lanolin, animal fats, non-synthetic ethyl and methyl alcohol, and water are allowed.
X	Extractants for plant extracts (prohibited)	O	All extractants other than those specifically allowed are prohibited.
X	Ferric and ferrous compounds (prohibited)	I/W	Includes ferric chloride, ferric oxide, ferric sulphate and ferrous ammonium sulphate. Also see 'Iron products (prohibited)'.
R	Ferric and ferrous compounds (restricted)	W	Ferrous sulphate may be used for moss control in a manner that does not lead to iron accumulation in the soil. See 'Iron products (restricted)'.
X	Ferric chloride	I/W	Prohibited.
X	Ferric oxide	I/W	Prohibited
X	Ferric sulfate	I/W	Prohibited
X	Ferrous ammonium sulphate	I/W	Prohibited.
R	Ferrous sulphate	W	May be used for moss control in a manner that does not lead to iron accumulation in the soil.
A	Fiber row covers	I	Must not be incorporated into the soil or left in the field to decompose: must be removed at the end of the growing season.
A	Flame torches	W	Allowed for vegetation control.
X	Formaldehyde	O	Prohibited.
X	Fungicides, synthetic	D	All synthetic fungicides that are not explicitly allowed or restricted are prohibited.
R	Garlic	I	In Canada permitted as an insect repellent only. Allowed in other formulations when registered for use in the jurisdiction in which it is used.
X	Genetically engineered organisms	D/I/ AP/ N/W	Prohibited in any form.
A	Grass clippings	W	Allowed as a mulch if free of pesticides and other contaminants.
A	Growth regulators for plants (allowed)	W	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)	W	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

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
			acetic acid).
A	Hair	AP	Allowed as a repellent.
A	Hay	W	Allowed as a mulch if free of pesticides and other contaminants.
X	Herbicides, synthetic	W	Prohibited unless specifically allowed. See 'Soap-based herbicides'.
R	Horticultural oils	D/I	Follow product use restrictions. May not contain any prohibited insecticides or other ingredients. See 'Suffocating oils' and 'Petroleum distillates' for more information.
X	Hot lime	D	Prohibited. Also known as calcium hydroxide. Also see 'Hydrated lime'.
R	Hydrated lime	D	Foliar application as a fungicide only. Hydrated lime is lime is hydrated calcium hydroxide. Also known as slaked lime.
R	Hydrogen peroxide	D	Not registered as a fungicide in Canada. Allowed when registered for use in the jurisdiction in which it is used.
A	Inert ingredients (allowed)	O	Minimum risk (EPA list 4) inert ingredients are allowed unless explicitly prohibited.
X	Inert ingredients (prohibited)	O	Inert ingredients of toxicological concern (EPA List 1). Inert ingredients of probable toxicological concern (EPA List 2) are prohibited.
A	Infrared radiation (heat, light)	W	Allowed for vegetation control.
R	Insect extracts	I	Ground insects diluted with water (bug juice). No products are currently registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.
A	Insecticidal soap	D/I	Insecticidal soaps consisting of fatty acids derived from animal or vegetable oils are allowed. Also see Adjuvants (allowed).
X	Ionizing radiation	D/I	For example: irradiation or microwave.
X	Iron citrate	I/W	Prohibited.
X	Iron nitrate	I/W	Prohibited.
X	Iron phosphate	I/W	Prohibited.
R	Iron products, restricted	W	Ferrous sulphate may be used for moss control in a manner that does not lead to iron accumulation in the soil.
X	Iron products, prohibited	I/W	Includes ferrous ammonium sulphate, ferric chloride, iron nitrate and iron phosphate
X	Iron sulphates	I/W	Prohibited
X	Iron tartrate	I/W	Prohibited

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
X	Killed microbial pesticides	I	These have been genetically engineered and are therefore prohibited.
A	Latex paint , interior	O	Latex paint is allowed for use for use on tree trunks for protection against sunburn.
X	Lime, hot	D	Also known as calcium hydroxide. Prohibited.
R	Lime, slaked	D	Foliar application as a fungicide only. Also known as hydrated lime. Slaked lime is hydrated calcium hydroxide.
R	Lime sulphur	D/I	Foliar application as a fungicide. May be used as an insecticide only if there are no feasible alternatives.
X	Methyl bromide	D	Prohibited.
X	Methyl Sulphoxide	D	Prohibited
A	Microbial inoculants	D/I	See 'Microbial products'.
A	Microbial products	D/I	Microbial products may be used on compost, plants, seeds, soils and other components of the agroecosystem. Allowed materials include Rhizobium bacteria, mycorrhizal fungi, Azolla, yeast and other microorganisms. 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)	W	Micronutrients may not be used as a defoliant herbicide, or desiccant.
A	Milk	D	Must not be from cows treated with rBGH
R	Mineral oils	D/I	See petroleum distillates.
X	Moth balls/crystals	I	Naphthalene and paradichlorobenzene are prohibited.
A	Mulch (allowed)	W	Organic matter in the form of plant residues from organic sources is allowed for mulching. See restrictions under 'Plastic mulches', 'Newspaper' and 'Paper' regarding these products. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
R	Mulch (restricted)	W	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.
X	Naphthalene	I	Prohibited
R	Neem extract, powder and seeds	I/D/ N	See 'botanical pesticides '. No neem products are currently registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
R	Nematicides, non synthetic	N	Must be from a natural source such as crab and shrimp shells.
A	Newspaper (allowed)	W	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)	W	Coloured or glossy paper is prohibited for use as a mulch.
X	Nicotine	I	Prohibited because of extreme toxicity.
R	Oils, petroleum based	D/I	Allowed on woody plants for dormant pest control. Prohibited for weed control use. See: 'Dormant oils ', 'Summer oils ', and 'Petroleum distillates'.
X	Oils, petroleum based	W	See: 'Dormant oils ', 'Summer oils ', and 'Petroleum distillates '.
X	Organo-chlorines	I	Prohibited.
X	Organo-phosphates	I	Prohibited.
A	Paper (allowed)	W	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)	W	Coloured or glossy paper is prohibited for use as a mulch.
X	Paradichloro-benzene	I	Prohibited.
X	Pelargonic acid	W	Prohibited.
A	Pelletising materials (allowed)	D/I	Clay, gypsum or other non-synthetic coatings.
X	Pelletising materials (prohibited)	D/I	Plastic polymers and other synthetic substances.
X	Pesticides, synthetic	D/I/ N/W	All synthetic pesticides not explicitly allowed or restricted are prohibited.
R	Petroleum distillates (restricted)	AP	Restricted to narrow-range (415-440) petroleum derivatives. Aromatic petroleum solvents including but not limited to benzene, naphthalene, toluene and xylene are prohibited. Use is restricted as follows: allowed for use as suffocating or stilet oils on foliage and as inert ingredients. May be applied to dormant perennials only. Must not be used as weed oils.
X	Petroleum distillates (prohibited)	W	All petroleum distillates are prohibited for vegetation control.
A	Pheromones	I	May not be combined with synthetic pesticides.
A	Pine oil and resin	O	See 'Plant protectants, natural'.
X	Piperonyl butoxide	O	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.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
A	Plant extracts and preparations	AP/ W/D /I	Allowed unless otherwise specifically restricted or prohibited. Allowed extractants include cocoa butter, lanolin, animal fats, alcohol, and water.
A	Plant protectants, natural	O	Materials which protect plants from harsh environmental conditions such as frost and sunburn, or from infection, or the buildup of dirt on leaf surfaces, or 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.
X	Plant protectants, synthetic	O	All synthetic plant protectants are prohibited unless specifically allowed.
A	Plants	D// W/N	<p>Includes plant preparations of aquatic or terrestrial plants, parts of plants, cover crops, green manure, crop wastes, hay, leaves and straw mulch if free of pesticides and other contaminants.</p> <p>Parts of plants used for crop protection such as marigolds, sesame chaff and Equisetum (horsetails) are permitted.</p> <p>Parts of plants used as insect repellents, such as cinnamon and garlic, are permitted.</p> <p>Botanical insecticides from plants i.e. rotenone, and pyrethrum are restricted.</p> <p>Plants used as mulch for weed suppression, and parts of plants with allelopathic properties such as rye grass and brassicas are permitted.</p> <p>Also see 'Plant Extracts' and 'Botanical pesticides'.</p>
R	Plastic mulches	W	Prohibited in perennial plantings and tree root zones. Allowed for solarization in seasonal plantings or unplanted areas. Must 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	Polyacrylimides	O	Prohibited.
A	Potassium bicarbonate	D	For disease control where legally registered.
A	Predator scents	O	Allowed as a repellent provided synthetic additives are not used.
X	Predator urine	O	Used to repel deer and other wildlife. Prohibited due to the inhumane conditions of collection.
X	Pruning Paints	D/F	Prohibited
X	Pyrethroids, synthetic	I	Prohibited
R	Pyrethrum	I	Only naturally occurring forms are allowed. Piperonyl butoxide may not be used as a synergist. Liquid formulations with prohibited inert ingredients are prohibited. There are currently no pyrethrum

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
			products registered in Canada that do not contain synthetic contaminants.
A	Repellents derived from vertebrate animals	AP	Acceptable if derived from a natural source such as blood meal, rotten eggs, hair or predator scents provided synthetic additives are not used.
A	Rodent traps	AP	Mechanical traps are acceptable but not with synthetic baits.
X	Rodenticides Anti-coagulant	AP	Prohibited
R	Rotenone	I	Must not be combined with unacceptable inert ingredients. There are only a few domestic products registered for use in Canada. See "Botanical pesticides" for restrictions.
R	Ryania	I	Not registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.
R	Sabadilla	I	Not registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.
A	Saponins	O	Saponins derived from plants are allowed as wetting agents.
X	Salt, table	W	Sodium chloride. Prohibited.
R	Sawdust & wood chips.	W	Must be from untreated and unpainted wood. Cedar and Redwood contain compounds that make these materials unsuitable for application in most planted areas.
A	Sea animal wastes	N	Crab and shrimp shells are acceptable for nematode control if they do not contain any synthetic ingredients.
A	Seed treatments (allowed)	D/I	Naturally occurring biological control agents are allowed. Genetically modified organisms are prohibited. See 'Microbial products' for bacterial coatings. Also see 'Pelletising materials (allowed) and (prohibited)'.
X	Seed treatments (prohibited)	D/I	Synthetic substances are prohibited. Also prohibited are endophytic fungi, insecticides, avicides, rodenticides, and/or other biocides targeting vertebrate pests. Also see 'Pelletising materials (allowed) and (prohibited)'.
A	Semio-chemicals	I	See pheromones. Other semio-chemicals must be non-synthetic and must not be combined with synthetic pesticides.
A	Shrimp shells	N	Allowed
R	Slaked lime	D	Foliar application as a fungicide only. Also known as hydrated lime. Slaked lime is hydrated calcium hydroxide.
A	Soaps (allowed)	D// O	Soaps consisting of fatty acids derived from animal or vegetable oils are allowed for insect control and as wetting agents. Also see Adjuvants (allowed).

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
X	Soaps (prohibited)	W	Prohibited for vegetation control.
R	Sodium bicarbonate	D	Also known as baking soda. Not currently registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.
X	Sodium chlorate & sodium chloride	W	Prohibited.
X	Sodium fluoaluminate mined and/or reacted	I	Prohibited.
A	Sodium silicate	O	Also known as waterglass. Allowed.
X	Sodium sulphite	O	Used as a preservative. Prohibited.
X	Soil fumigants, synthetic	D	Prohibited.
	Solvents	O	See 'Adjuvants, (allowed), (restricted) and (prohibited)'.
	Spray adjuvants	O	See 'Adjuvants, (allowed), (restricted) and (prohibited)'.
	Spreader-stickers	O	See 'Adjuvants, (allowed), (restricted) and (prohibited)'.
A	Steam	W	Allowed for vegetation control.
A	Sterile insect	I	See biological controls.
A	Sticky traps and barriers	I	Must not contain prohibited pesticides or other prohibited substances.
A	Straw	W	Allowed if free of pesticides and other contaminants.
X	Streptomycin, Streptomycin sulphate	D	Prohibited.
R	Suffocating oils from petroleum sources	D/I	See 'Petroleum distillates'. Follow product use restrictions.
R	Suffocating oils from vegetable sources	D/I	None are currently registered for use in Canada. Allowed when registered for use in the jurisdiction in which it is used.
R	Sulphur	AP	Sulphur smoke bombs used for rodent control must be used in conjunction with other methods.
R	Sulphur	D/I	Allowed for foliar use only.
A	Sulphur dioxide	AP	Allowed for use in sulphur smoke bombs for control of underground rodents.
R	Summer oils	D/I	Follow product use restrictions. Must not contain any prohibited insecticides or other ingredients. See 'Suffocating oils' and 'Petroleum distillates'.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
A	Surfactants	O	See 'Adjuvants and Inert ingredients (allowed), (restricted) and (prohibited)' .
	Tanglefoot <sup>TM</sup>	I	See 'Sticky traps and barriers'
X	Terramycin	D	Oxytetracycline calcium complex. See "Antibiotics" . Prohibited.
X	Toluene	AP	Prohibited.
X	Transpiration blockers, synthetic	O	Prohibited.
A	Traps	I	May not be combined with otherwise prohibited synthetic pesticides.
X	Urea	AP/W	All uses prohibited, including as an inert ingredient.
R	Vegetable oils	O	Allowed as spreader-stickers, surfactants and carriers. Must not contain prohibited ingredients.
R	Vinegar	W	Spot treat via direct application to plant foliage. Broadcast application in planted areas prohibited.
A	Virus sprays	I	Codling moth Granulosis virus is acceptable. No genetically engineered viruses are allowed.
R	Vitamin D-3 (Cholecalciferol)	AP	Vitamin D-3 cannot be the sole means of rodent control. Precautions must be taken to prevent killing non-target animals.
R	Water, reclaimed	O	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.
A	Waterglass	O	Sodium silicate. Allowed.
X	Weed oils	W	All forms are prohibited.
A	Weed torches	W	Allowed for vegetation control.
A	Wetting agents (allowed)	O	Natural wetting agents, including soaps, saponins and microbial wetting agents are allowed. See 'Adjuvants, allowed'. See 'Soaps'.
R	Wetting agents (restricted)	O	See 'Adjuvants, restricted'. See 'Detergents'.
X	Wetting agents (prohibited)	O	Polyacrylimides and other synthetic wetting agents are prohibited. See 'Adjuvants, prohibited'.
A	Wood chips and shavings	W	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	O	Allowed. See 'Plant protectants, natural'.

## List 2: Landscape Pest Control Products

Status	Name of Material	Use	ANNOTATION
X	Xylene	AP	Prohibited.
X	Zinc pellets	O/ W	Prohibited

### List 3: Construction Materials and Related Products

Status	Name of Material	Use	ANNOTATION
X	Arsenate-treated lumber	C	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	O	Sodium tetraborate and octaborate may be used as wood preservatives. Only mined sources acceptable.
A	Clay products	C	Allowed.
A	Concrete products	C	Fresh concrete may temporarily change the soil pH in its vicinity. Appropriate protection measures should be taken.
X	Cooper chromium arsenate	O	Prohibited.
R	Copper hydroxide	O	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper oxides	O	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper oxychloride	O	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper sulphate	O	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
R	Copper zinc chromate	O	Allowed as a wood preservative. See 'Wood preservatives (restricted)' for restrictions.
X	Creosote	O	Prohibited.
A	Dust suppressants (allowed)	O	Water, lignin sulfonate and non-synthetic plant, mineral, or animal based materials.
R	Dust suppressants (restricted)	O	Calcium chloride, magnesium chloride, emulsified plant resins and tall oils (a by-product of pulping process of pine wood). Long term use is discouraged. Not allowed for the suppression of roadside vegetation.
X	Dust suppressants (prohibited)	O	All materials for dust suppression not specifically allowed or restricted are prohibited including but not limited to asphalt and all petroleum products.
A	Irrigation products	C	Polyethylene (Poly) and polyvinyl chloride (PVC) products are allowed for use in ornamental landscapes.
R	Limestone	C	Allowed where the resulting pH change of the soil has no or minimal negative impact on the environment.

### List 3: Construction Materials and Related Products

Status	Name of Material	Use	ANNOTATION
X	Pentachlorophenol	O	Prohibited.
R	Pressure treated lumber	C	Copper chromium arsenate (CCA) lumber is prohibited as described in "Arsenate treated lumber". Creosote and pentachlorophenol treated lumbers are prohibited.
A	Rock, natural	C	Allowed.
A	Sodium octaborate	O	Allowed as wood preservatives. Only mined sources acceptable.
A	Sodium tetraborate	O	Allowed as wood preservative. Only mined sources acceptable.
A	Wood preservatives (allowed)	O	Sodium octaborate and sodium tetraborate
R	Wood preservatives (restricted)	O	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)	O	Copper chromium arsenate, creosote, and pentachlorophenol are prohibited.

## List 4: Other Products

Status	Name of Material	Use	ANNOTATION
A	Acetic acid Non-synthetic	O	Used as drip irrigation cleaner, equipment cleaner. The synthetic form of this material has not been reviewed.
A	Activated carbon	O	Also known as black carbon and activated charcoal. Permitted as a filtering agent.
A	Activated charcoal	O	Also known as black carbon and activated carbon. Permitted as a filtering agent.
A	Alcohol (allowed)	O	Non-synthetic ethyl and methyl alcohol are allowed as cleaners, disinfectants, extractants and inert ingredients.
R	Alcohol (restricted)	O	Synthetic sources of ethyl, methyl, and isopropyl alcohol may only be used as disinfectants or inert ingredients. There is a lack of information about manufacturing processes of the synthetic form of methyl alcohol.
X	Ammonium lignosulphate	O	Prohibited.
R	Alkali carbonates	O	For disinfecting greenhouse facilities.
A	Ascorbic acid	O	Used for cleaning irrigation lines, adjusting the pH of sprays. The synthetic form of this material has not been reviewed.
X	Benzene	O	Prohibited.
A	Black carbon	O	Also known as activated carbon and activated charcoal. Permitted as a filtering agent.
R	Bleach	O	Calcium hypochlorite, sodium hypochlorite and chlorine dioxide allowed for cleaning tools, equipment and structures. Flush water cannot exceed the levels set by the federal and provincial governments. Bleach is corrosive for metal. Residual chloride levels for wash water in direct contact with plants, and in flush water that is applied to plants or landscapes cannot exceed the Maximum Residual Disinfecting Limit under the Safe Water Drinking Act; (currently 4 mg/L expressed as Cl <sub>2</sub> ).
A	Boric acid	O	May be used for structural pest control i.e. ants. No direct contact with plants permitted.
R	Burned lime	O	Also known as Quick lime or Calcium oxide. For disinfecting greenhouse facilities only.
X	Calcium carbide	O	Prohibited.
X	Calcium chloride	O	Prohibited.
R	Calcium hypochlorite	O	See 'Bleach'.
A	Calcium lignosulphate	O	Allowed as a dust suppressant or inert ingredient.

## List 4: Other Products

Status	Name of Material	Use	ANNOTATION
R	Calcium magnesium acetate	O	Allowed for surface ice control.
R	Calcium oxide	O	Also known as quick lime or burned lime. For disinfecting greenhouse facilities only.
A	Carbon, activated	O	Also known as black carbon and activated charcoal. Permitted as a filtering agent.
A	Carbon dioxide	O	For soil and greenhouse use.
R	Caustic potash	O	Also known as potassium hydroxide and lye . Allowed for disinfecting greenhouse facilities only.
A	Charcoal, activated	O	Used as a filtering agent.
R	Chlorine and chlorine dioxide	O	See 'Bleach '.
A	Citric acid	O	Used as drip irrigation cleaner, equipment cleaner and pH adjuster. Corrosive for soft metals.
	De-icers	O	See 'Ice control products'.
A	Detergents	O	For cleaning structures and equipment only.
A	Drip irrigation cleaners (allowed)	O	Allowed drip irrigation cleaners include vinegar, citric acid and other naturally occurring acids.
R	Drip irrigation cleaners (restricted)	O	Restricted drip irrigation cleaners include bleach and detergents. See 'Bleach ' for restrictions.
X	Drip irrigation cleaners (prohibited)	O	Prohibited drip irrigation cleaners includes nitric, phosphoric, and sulphuric acids.
A	Dust suppressants (allowed)	O	Water, lignin sulphonates and non-synthetic plant, mineral, or animal based materials. See 'Lignin sulphonates'.
R	Dust suppressants (restricted)	O	Calcium chloride, magnesium chloride, emulsified plant resins and tall oils (a by-product of pulping process of pine wood). Long term use is discouraged. Not allowed for the suppression of roadside vegetation.
X	Dust suppressants ( prohibited)	O	All materials for dust suppression not specifically allowed or restricted are prohibited including but not limited to asphalt and all petroleum products.
A	Equipment cleaners (allowed)	O	Allowed materials include acetic acid, carbonic acid, citric acid, hydrogen peroxide, soap, water and other non-synthetic cleaners.
R	Equipment cleaners (restricted)	O	Bleach and detergent are allowed within restrictions set for their use. See 'Bleach' and 'Detergents' for restrictions.
X	Equipment cleaners (prohibited)	O	All synthetic equipment cleaners that are not explicitly allowed or restricted are prohibited. Aromatic petroleum solvents are prohibited.

## List 4: Other Products

Status	Name of Material	Use	ANNOTATION
R	Ethanol	O	Permitted for use as a disinfectant or inert ingredient only.
A	Ethyl alcohol, non-synthetic	O	Allowed as cleaner, disinfectant, extractant and inert ingredient.
R	Ethyl alcohol, synthetic	O	May only be used as disinfectant or inert ingredient.
X	Genetically engineered organisms	O	Prohibited in any form.
R	Hydrochloric acid	O	Also known as muriatic acid. Allowed as a grout remover only. It is a synthetic material. Corrosive for many metals and concrete. Avoid contact with strong alkalis. Use with extreme caution. Observe disposal directions.
A	Hydrogen peroxide	O	Allowed as a disinfectant.
A	Ice control products (allowed)	O	For ice control on hard surfaces only: calcium magnesium acetate, and abrasive materials such as sand, ash or cinders provided they are free of prohibited substances.
X	Ice control products (prohibited)	O	Calcium chloride, magnesium chloride and sodium are prohibited.
A	Inert ingredients (allowed)	O	Minimum risk (EPA list 4) inert ingredients are allowed unless explicitly prohibited.
X	Inert ingredients (prohibited)	O	Inert ingredients of toxicological concern (EPA List 1) and inert ingredients of probable toxicological concern (EPA List 2) are prohibited.
R	Isopropyl alcohol	O	Permitted for use as a disinfectant or inert ingredient only.
A	Lignin sulphonates	O	Lignosulphonic acid, calcium lignosulphate and sodium lignosulphate. Allowed as a chelating agent, as an inert ingredient, as a dust suppressant. Ammonium lignosulphate is prohibited.
A	Lignosulphonic acid	O	Allowed as a dust suppressant or inert ingredient.
R	Lye	O	For disinfecting greenhouses only. Also known as caustic potash and potassium hydroxide.
R	Magnesium chloride	O	Natural sources only. Prohibited for surface ice control.
A	Methyl alcohol, non-synthetic	O	Allowed as cleaner, disinfectant, extractant and inert ingredient.
R	Methyl alcohol, synthetic	O	May only be used as disinfectant or inert ingredient. There is a lack of information about manufacturing processes of the synthetic form of methyl alcohol.
R	Muriatic acid	O	Also known as hydrochloric acid. Allowed as a grout remover only. It is a synthetic material. Corrosive for many metals and concrete. Avoid contact with strong alkalis. Use with extreme caution. Observe disposal

## List 4: Other Products

Status	Name of Material	Use	ANNOTATION
			directions.
X	Naphthalene	O	Prohibited
X	Nitric acid	O	Prohibited.
X	Pelargonic acid	O	Prohibited.
X	Pentachloro-phenol	O	Prohibited.
X	Petroleum distillates	O	Prohibited.
X	Petroleum solvents, aromatic	O	These petroleum fractions are prohibited because they are definite health hazards.
A	pH buffers	O	Must be from a natural source such as citric acid, or vinegar. Lye and sulphuric acid are prohibited.
X	Phosphoric acid	O	Prohibited.
X	Piperonyl butoxide	O	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.
R	Potassium hydroxide	O	Also known as caustic potash and lye. For disinfecting greenhouse facilities only.
R	Quick lime	O	Also known as burned lime or calcium oxide. For disinfecting greenhouse facilities only.
X	Seed Treatments	O	Prohibited.
R	Rubbing alcohol	O	Permitted for use as a disinfectant or inert ingredient only.
A	Soap	O	Insecticidal soaps consisting of fatty acids derived from animal or vegetable oils are allowed.
X	Sodium chlorate & sodium chloride	O	Prohibited.
R	Sodium hypochlorite	O	See 'Bleach'.
R	Sodium hydroxide	O	For disinfecting only. Avoid contact with strong acids. Cannot be used on aluminum or like alloys.
A	Sodium lignosulphate	O	Allowed as a dust suppressant or inert ingredient.
A	Sodium silicate	O	Waterglass
X	Sulfuric acid	O	Prohibited.
X	Toluene	O	Prohibited.

## List 4: Other Products

Status	Name of Material	Use	ANNOTATION
X	Urea	O	All uses prohibited, including as an inert ingredient.
A	Vinegar	O	Used as drip irrigation cleaner, equipment cleaner.
R	Water, reclaimed	O	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.
R	Water softeners	O	Only acceptable for use with soaps.
X	Xylene	O	Prohibited.