

COMMODITY

NURSERY AND TURF

Description

Nursery

British Columbia's nursery industry is located primarily in the Fraser Valley. Production also occurs in the Okanagan, Kootenay and Vancouver Island regions. The nursery industry comprises retail and wholesale producers as well as landscape nurseries and plant material distributors and brokers. The nursery sector is unique by virtue of the diverse range of crops grown and the different production methods used.

Nursery production in B.C. supplies coniferous and deciduous trees and shrubs, fruit trees, berry bushes, bulbs, vines, roses, ground covers, broadleaf evergreens and a wide variety of herbaceous perennials.

Nursery crops are grown either in fields or containers, the latter being the more popular production method. Field production involves planting bareroot or small container-grown plants in production rows. Coniferous plants may remain in the field until time of sale whereas bareroot deciduous stock may be harvested, graded and replanted at wider spacings for further growth. One acre of trees in containers yields three to eight times more revenue than one acre of field production. Container production is more intensive and mechanized, and requires more technical training by staff and more capital investment than field production.

Nursery plants are vulnerable to disease and insect infestation. To control these problems and to minimize use of chemicals, many nursery growers use integrated pest management which combines good growing practices, resistant stock, and biological and chemical controls.

For container production, well-drained and stable growing beds are required. For field production, good drainage is needed so farmers can have year-round access to their fields and crop production areas. Nursery operators use farm equipment such as tractors, cultivators, sprayers, harvesters, and potting machines. On-farm infrastructure includes irrigation equipment, greenhouses, machinery sheds, cold frames, wells, power lines and chemical and fertilizer storage facilities. Nursery operators typically require processing areas for crop handling and shipping.

Christmas Trees

Practices for the production of Christmas trees are similar to those for field-grown nursery stock. Christmas tree plantations can be located on both private and crown land. Crown land production is administered by the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) under permit. To support crown land production, dedicated farm buildings, storage areas, shipping facilities, machinery, processing equipment and related activities may, however, be located or carried out on a producer's private holdings. Information on applying for Christmas tree production on crown land is available from the Ministry of Forests, Lands and Natural Resource Operations website.

Turf

Turfgrass production is scattered throughout the province with about two-thirds of the sod being grown in the Lower Mainland, on Vancouver Island and in the Okanagan. Turfgrass sod is a mature grass cover that is produced in an intensively managed agricultural operation, removed intact with a minimum amount of soil, and transplanted in another location to form an instant turf cover. The primary market for sod produced in British Columbia is the housing industry and – to a lesser extent – sports fields and golf courses.

Field preparation for sod involves control of perennial weeds and old sod either mechanically or through the use of herbicides. Mineral and/or organic material such as sand, sawdust, compost or manure is sometimes placed on the field to replace the soil that was removed in previous harvests. The soil is then worked and fertilizer is applied. Plastic webbing may be laid to improve root mat strength and to help reduce soil removal at harvest. A mixture of perennial grasses is seeded and allowed to grow for about one year. The sod is cut and rolled by the sod harvester, a special machine used for this purpose. The sod is then placed on pallets, ready for transport to the installation site.

Farm Practices of Particular Interest

Practices for specific farm activities can be found in the Farm Practice section of this reference guide. Farm practices that are of particular interest to nursery and turf production include the following.

Crop Production and Marketing

Harvesting operations and pesticide application are timed according to the weather, production cycles and crop quality. Equipment may be run at any time of the day or night during critical stages of the production process. Nursery producers often need to grade, package and store farm products to be shipped. Pesticides may be applied early in the morning to late in the evening. Operations that sell directly to the public must provide adequate on-site parking for customers. Turfgrass sod must be moved quickly after it is harvested to prevent damage as it is living plant material.

See also Farm Practice: [Direct Farm Marketing and Agriculture Tourism](#)
[Mobile Equipment](#)
[Product Processing](#)
[Stationary Equipment](#)

Farm Buildings

Nursery producers require buildings to protect equipment and to store growing media, fertilizers and pesticides. Nurseries using greenhouse buildings are subject to the same standards established for dedicated greenhouse operations.

See also Farm Practice: [Storage of Hazardous Material](#)
[Storage of Farm Supplies and Products](#)

See also Commodity: [Greenhouses](#)
[Agroforestry and Specialty Wood Crops](#)

Fertilizer and Manure Management

Nursery and turf growers use a wide range of fertilizers, soil amendments and soil-less media.

See also Farm Practice: [Fertilizer and Soil Conditioners](#)

Lighting

Supplemental lighting is required inside the greenhouses on some nursery operations. Nursery and turf operators may use yard lights for security and safety.

See also Farm Practice: [Lighting](#)

Removal of Soil or Placement of Fill

Soil removal or placement of fill is a permitted agricultural activity in situations where this practice is necessary. A *Notice of Intent*, however, must be submitted to the Agricultural Land Commission for specified farm and non-farm uses where soil or fill must be removed or introduced. Allowable specified uses include greenhouses, farm buildings or structures for intensive livestock operation or mushroom production, aquaculture facilities, or composting facilities. Conditions must be specified and removal of soil or placement of fill must exceed 2% of the area of the parcel. Proposals under the *Notice of Intent* may be allowed with approval of the Land Commission and with terms and conditions set by the Chief Executive Officer of the Commission.

Water Management

Nursery and turf production may require frequent, short applications of irrigation water. Growers may deliver dissolved fertilizers via fertigation or pesticides via chemigation to their crop with the irrigation water. Irrigation systems may also be used for frost protection or crop cooling purposes. Nursery operators may allow uncontaminated storm water runoff from their nursery to enter municipal drainage systems, provided that a storm water management plan has been prepared and submitted in accordance with local government bylaws.

See also Farm Practice: [Drainage](#)
[Irrigation](#)
[Stormwater Management](#)

Waste Handling

Nursery wastes must be handled, collected, stored, and disposed of in accordance with the *Agricultural Waste Control Regulation*. Materials of special concern are plastic pots, polyethylene bags, coverings for greenhouses, plant material and polystyrene. If a turf farmer sells or leases his land to another for farming purposes, he should notify the subsequent user if netting or mesh has been incorporated in previously-planted sections. Turf from such areas should be removed to prevent such materials from severely impacting future cultivation and production operations that are not turf-based. Netting should not be used if there is a strong likelihood of the land being used for other purposes before all turf is to be utilized.

See also Farm Practice: [Burning](#)
[Composting](#)
[Farmstead Refuse](#)
[Non-Agricultural Waste](#)

Use of Woodwaste

Nursery growers use woodwaste for on-farm and access roads and container beds. Wood waste in the form of aged bark is also typically used as a component in soilless potting media.

See also Farm Practice: [Woodwaste](#)

Other farm practices may occasionally be applicable to direct marketing and agriculture tourism activities and can be found in other sections of this guide under the following headings.

See also Farm Practice: [Product Processing](#)
[Stationary Equipment](#)

Principal and Accessory Buildings

For the purposes of applying setbacks from watercourses and property lines in local government bylaws, it may be necessary to distinguish between principal and accessory buildings. The principal farm buildings or structures used in nursery or turf applications are typically greenhouses, cold frames, direct farm marketing structures, and storage buildings. Accessory farm buildings may include offices; agricultural waste, chemical, and compost storages; direct farm marketing buildings; generator enclosures; machine storages; on-farm composting, processing, soilless medium and product preparation structures; and woodwaste storage buildings. Local bylaws should be examined to determine setback distances pertinent to various classifications of buildings.

Legislation

Agricultural producers are expected to follow all legislation that pertains to their farming operations. The *Farm Practices Protection (Right to Farm) Act* stipulates that the farm operation must meet the *Public Health Act*, *Integrated Pest Management Act*, *Environmental Management Act* and the regulations under those Acts. Information on federal and provincial legislation can be found in Appendices B and C.

Acts that pertain to specific farm activities are listed in the farm practices section of this reference guide. Local government bylaws may also apply to some farm practices. Acts that are not referenced elsewhere and which may be of special interest to nursery and turf producers include the following.

Federal Legislation

The *Fisheries Act* prohibits the discharge of deleterious substances such as agricultural wastes, fertilizers and manure into waters frequented by fish.

Provincial Legislation

The *Natural Products Marketing (BC) Act* enables the producers of agricultural commodities to control the production and marketing of natural products in the province.

The *Plant Protection Act* is legislation that enables prevention of the spread of pests destructive to plants in B.C.

The *Weed Control Act* places the responsibility for the control of noxious weeds on the occupier of the land.

Local Government Legislation

Applicable local government legislation may include noise and zoning bylaws.

Publications

Publications that provide information on nursery and turf production include, but are not limited to, the following. Refer to Appendix D for details.

British Columbia Environmental Farm Plan Reference Guide
British Columbia Good Agricultural Practices (GAP) Guide
British Columbia Landscape Standard (2012 Edition)
Integrated Pest Management (IPM) for Turfgrass Managers
Nursery & Landscape Pest Management & Production Guide
On-Farm Food Safety