

Produce Standard

Kootenay Mountain Grown



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Produce growing Standard

Kootenay Mountain Grown practices:

Our farmers realize that the soil is a living entity and that organic practices feed the soil which in turn feed the plant, thus a fundamental requirement is that all crops are grown in living soil¹. The Kootenay Mountain Grown farming standard of farming is a management intensive, not a materials intensive, technology; materials are a supplementary tool in a balanced farm management program. Our farmers attempt to understand and work in harmony with the natural biological systems on the farm, not to override them with chemicals (even naturally derived ones). They strive to develop cultural and biological means of crop nutrition and protection that are balanced, sustainable, and resilient.

Basic concepts

The following are some of the concepts and practices that are fundamental to Kootenay Mountain Grown production and should be the backbone of a Kootenay Mountain Grown farming system. Rotations and diversification are key principles in an ecological farming system.

In an annual cropping system:

- Legumes used as green manures, cover crops or permanent understory improve fertility.
- Allopathic crops that exude toxins from their roots can suppress weeds and insect pests.
- Diversity of crops in both time and space prevents insect and disease build ups and gives a grower an edge against poor market conditions for any one crop.

In a perennial or permaculture system:

- Cover crops are used to hold the soil, improve fertility and provide habitat for beneficial insects.
- A diversity of plants including polycultures, hedgerows and windbreaks help ensure that no one factor such as a pest or a weed can throw the system off balance.
- Pest-free and weed-free fields are neither always possible nor economically and ecologically desirable. Learning the thresholds for tolerable levels of weeds, insects, birds and rodents takes time and experience and is an on-going process.
- Varietal selection should look beyond maximum potential yield and consider insect and disease resistance, nutritional quality, flavour and positive response to lower inputs of nutrients and water.
- Pest problems can be minimized by proper timing of plantings and the use of trap crops to attract pests and beneficials alike.
- Materials are not used as the primary management strategy, but rather as an aid to resolving a specific problem until the farm system can be brought back into balance.

¹ Definition: The unconsolidated mineral or organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

- Livestock management is based on good nutrition, animal stress reduction, preventative medicine and other means not dependent on drugs or pesticides.
- Livestock breeding selects for disease resistance.
- Protection of riparian ways through buffers or other ecological practices to ensure preservation

Recommended practices

The Kootenay Mountain Grown label is an organic marketing label and as such there are restrictions on products and processes that may be used on a farm.

Generally, any product that is listed in the Canadian Permitted Substance List or, listed by OMRI may be used in agriculture under the Kootenay Mountain Grown label.

The following list offers guidance to Kootenay Mountain Grown farmers. It is not intended to be comprehensive.

- **Nitrogen:** green manures and leguminous cover crops; composted animal manures; bacterial inoculants for soil, legumes and compost; soy, cottonseed and vegetable meal; fish or feather meal; and foliar sprays in conjunction with a soil building program.
- **Disease management:** resistant varieties; sanitation; cultural practices that favour the crop, hinder the pathogen, and create an environment unfavourable for disease development; biological control agents; and least toxic chemicals derived from natural sources.
- **Insect management:** preventive management such as use of resistant varieties, timing to avoid cycles of pest emergence, intercropping, rotations, balanced plant nutrition, herbal sprays, rock powders, diatomaceous earth, nonpetroleum-based dormant oils, parasitic nematodes, introduction of predators, habitat enhancement to encourage beneficial predators, sticky traps, microbial and viral diseases.
- **Phosphorus:** composted manures high in phosphorus (poultry, guano); colloidal, soft and hard rock phosphate; mycorrhizae to activate rock phosphate.
- **Potassium:** cover crops that activate potassium; mined granite, greensand, basalt, feldspar, langbeinite and potassium sulphate.
- **Secondary minerals (calcium magnesium and sulphur):** kelp and seaweed extracts and powders; dolomite, gypsum, kieserite, langbeinite, limestone, potassium sulphate and rock phosphate from mined sources; oyster, clam, lobster and crab shells; composts made from a variety of materials.
- **Micronutrients:** liquid or powdered seaweed extract, kelp meal, rock powders, chelates made with natural chelating agents and sun dried, unrefined, natural sea salt.
- **Growth promoters, activators and inoculants:** herbal preparations, seaweed extract, rhizobial inoculants, biodynamic preparations, blue-green algae, humates, naturally occurring microbes and fungi.

- **Weed management:** rotations with competitive cover crops, timely mowing or cultivation, mulching with organic materials, living mulches, weeder geese, grazing, careful sanitation to prevent introduction of weed seeds.
- **Vertebrate management:** traps, repellent crops, sound.
- **Post-harvest handling:** good sanitation, refrigeration, pheromone trapping.
- **Water stewardship:** buffers to prevent livestock run-off into water ways and soil erosion

Drift policy

Drift is the movement of a material from the intended target. Drift may occur by air, water, soil movement or by other mechanisms.

Standard: Kootenay Mountain Grown may require an inspection and residue analysis based on allegations of drift contamination. Kootenay Mountain Grown does not automatically decertify land or crop for drift contamination. However, Kootenay Mountain Grown may decertify a crop based on the results of a drift investigation.

Notification: It is the Kootenay Mountain Grown farmer's responsibility to notify the review committee certification chairperson as soon as s/he or anyone under his/her management is aware of prohibited material drift onto any acreage or crop in the Kootenay Mountain Grown certification program.

Required information: In cases of potential drift contamination, Kootenay Mountain Grown seeks the following information: identification of the affected crop, the projected date(s) of harvest, a description of the exact area affected, the time and date of material application, identification of the substance, identification of the material applicator, whether the grower wants confidential treatment of this incident, a list of who, such as the buyer of the product, has been informed about the incident. This information as well as any residue testing results and inspection report information may be held confidential by Kootenay Mountain Grown.

Boundaries and buffer zones

The boundaries of land in the Kootenay Mountain Grown program must be clearly and unambiguously marked by permanent physical objects (e.g., roads, fences, streams, hedgerows, etc.). The boundaries must also be explicitly described on the map of the parcel. Clearly marked boundaries are necessary so that there is no doubt by Kootenay Mountain Grown certification personnel, neighbours, farm employees, contractors, government officials, and the farmer where the certified acreage begins and ends.

Buffer zones are sometimes necessary to protect certified crops from being contaminated. Given the widespread use of toxic substances, prevention of contamination from sources beyond the farmer's control may not always be possible. In view of this, buffer zones must be determined as appropriate and practical in the specific situation. In cases where there is any concern about the possibility of contamination from adjacent areas, a minimum buffer zone of 25 feet is required from the drip line of the crop in the program to the potentially contaminated adjacent area. This zone should be planted in some type of windbreak, or with a "trap crop" that is not sold as Kootenay Mountain Grown certified. This minimum buffer may also apply to

irrigation and hydro rights-of-way passing through certified lands, depending on circumstances. Larger distances may be required by the review committee. It is the grower's responsibility to demonstrate with harvest/sales records that buffer zone crops were not sold as Kootenay Mountain Grown unless the review committee granted the operation a specific exemption to this requirement in writing.

Kootenay Mountain Grown recommends that growers with land in the program adjacent to land where neighbours apply Kootenay Mountain Grown prohibited materials inform their neighbours in writing that their land is in the Kootenay Mountain Grown certification program.

Seeds and transplants

The Kootenay Mountain Grown program requires the use of untreated seeds, but permits the use of fungicide-treated seed so long as the fungicides used are listed either in the OMRI list or the Canadian Permitted Substances List. Potato tubers and eyes are considered seeds. Seeds for used for sales as sprouts must be organically grown.

All transplanted seedlings of annual crops must be Kootenay Mountain Grown or organically grown. If the operation is not producing all of its own seedlings, the source of transplants must be documented and verified to be Kootenay Mountain Grown or organically grown. It is the grower's responsibility to have seedling documentation available (either an affidavit or proof of certification from the seedling producer). Kootenay Mountain Grown requires that growers using purchased Kootenay Mountain Grown transplants provide a properly labelled invoice including the transplant grower's name, and a reference to Kootenay Mountain Grown certification. Sweet potato slips are considered transplants. Growth promoters and vitamins used in seedling production must not be synthetically compounded and all substances must be listed either in the OMRI list or the Canadian Permitted Substances List. All annual transplants must be Kootenay Mountain Grown or certified organic or must be clearly labelled as non Kootenay Mountain Grown or non organic.

Transplants of perennial crops must be grown according to Kootenay Mountain Grown growing standards or certified organic standards for at least 12 months prior to the appearance of flower buds in order that the crop may be sold as Kootenay Mountain Grown. Review committees may require adherence to Kootenay Mountain Grown or organic standards for a period longer than 12 months.