

Mushroom Production in Canada



The most popular mushroom variety in Canada is the White Button (*agaricus bisporus*), also known as Stuffers, Paris, and Grillers. Brown mushrooms such as Crimini and Portabella belong to the same species. White and brown mushrooms make up 90% of the mushroom crop in Canada. The balance is specialty mushrooms such as Shiitake, Oyster, King Oyster, and Enoki. Total mushroom production in Canada is

approximately 105 million Kg (230 m lb.), with Ontario producing 57%, British Columbia 27%, the Prairies 12% and eastern Canada 4%. In 2006, approximately 25 million Kg. (55 m lb.) of Canadian Mushrooms were exported to the USA. That is approximately one-quarter of the crop.

How do Mushrooms Grow?

For white and brown mushrooms, the process starts with the substrate. That is the soil in which mushrooms grow. The common ingredients in mushroom substrate are wheat straw, hay, stable bedding, poultry litter, gypsum and water. Mushroom growers are masters of composting. In approximately two weeks, bacteria and heat have converted the raw materials into a growth medium for mushrooms. Then the substrate is pasteurized at 160F/71C to selectively destroy

undesirable microorganisms. The substrate is then ready to be seeded with spawn, the mushroom equivalent to seeds.

Mushroom farmers purchase their spawn supplies from special laboratory companies that reproduce and test different strains of mushroom mycelia. Particles of mycelia are incubated with sterile kernels of wheat, rye or millet. This treated grain is bagged and shipped to the farmers. At modern mushrooms farms, the spawn is blended with the pasteurized substrate and transferred to the growing beds. Frequently, a high-protein supplement of soybean meal and/or



feather meal is added to the spawned-substrate as a growth promotant. Then the growing beds are covered with a layer of peat-moss as a reservoir of moisture. With proper temperature and humidity controls, the mycelia permeate the substrate and peat. Another temperature shock prompts the mycelia to form fruiting bodies which we call mushrooms.



A few weeks after spawn-run the first harvest is ready. Depending on the local market, the mushrooms can be small, medium or large. As one crop of mushrooms is harvested, it makes room for more mushrooms to grow. Mushroom farmers repeat the harvest for two to three weeks, until the nutrients in the substrate are exhausted. At the end of harvest, the substrate is sterilized with steam, removed from the barn and sold as an organic soil enrichment.

All mushrooms are harvested by hand, very labour intensive work. The harvester trims the base or stump, and moves the mushrooms to refrigerated storage immediately. The cold temperature slows oxidation, preserving the white colour and shelf-life. That is why mushrooms should be stored in the refrigerator at home. Most farms have a separate grading, packing and storage facility with strict controls for food safety. Mushroom packaging has evolved, over the last few years, to include tray-packs of rinsed and/or sliced, as well as traditional boxes of loose mushrooms. Regardless of the process,

Canadian mushrooms arrive at your local market within 24 hours of harvesting, every week of the year, FRESH, SIMPLE & GOOD.

