

Mushrooms in the Garden

by [Terri Marie Beauséjour](#), www.mikoweb.com

Have you ever considered growing mushrooms in your garden? A wide variety of fungi possess qualities of edibility and/or aesthetic beauty appropriate for both the flower and kitchen gardens, or even for general landscaping. They may be grown with no greater effort than that required for plants.

In fact, many varieties will thrive nicely with little or no maintenance. For example, (the delectable Shaggy Mane) would feel right at home in and around your compost pile. The immense stature of the stunning purple-capped, black-gilled *Stropharia rugoso-annulata* may thrive in an area where lawn and woodchip mulch are in proximity, or between rows of straw-mulched vegetables or fruit trees.

Agaricus species (the Portobello, the Prince, the Horse Mushroom, etc.) are adaptable to grassy areas among trees. *Pleurotus* species (Oyster mushrooms) are easily grown on a variety of substrates including straw, wood chips, shavings or sawdust -- and even whole hardwood logs. There are boundless possibilities if you let your creativity and imagination guide you.

Intrigued? But wondering how to get started?

You should begin by taking a fresh view of your garden or landscape from a new perspective; analyze its "fungamentals." List or diagram its various micro-habitats with an eye toward the qualities important to fungi. Take note of existing substrates -- lawn, treed areas, shrubs and other plantings, newly cut hardwood logs, compost areas of kitchen scraps, branch chipping, grass clippings, manures and mulches of wood chips, straw, etc.

Note conditions of sun and shade, wind and humidity. Determine if any areas may be readily amended to improve the conditions for fungi, the most important of which are warmth, moisture and humidity, along with the proper nutrients and digestible materials.

The beautiful irony is that many substrates suitable for fungi are also beneficial to the garden itself, and most can be obtained for little or no investment, as they are often considered "waste materials" or by-products. Furthermore, the required humidity and protection from direct sunlight can be maintained by your leafy plants, shrubs and trees.

Once you have considered the possibilities, you should determine what mushroom varieties are suitable and desirable. This is a great opportunity to really get to know your mushrooms. Understanding what they need in order to produce fruit bodies will even help you to seek out and find them more easily in the wild. Why, you might ask?

Because you will more quickly analyze and interpret the conditions and microclimates which favor their growth. Here are some clues about the natural predispositions of several varieties, and the analogous conditions in your garden.

Coprinus comatus

The Shaggy Mane is frequently found along roadsides and in meadows, lawns, park grounds, sports fields, old composting locations and newly planted grass. It favors nutrient rich soil. It can enliven a lawn, the bare rows between shrubs or vegetables, or may fruit gregariously in and around your compost heap.

Commercially obtained or home-grown spawn is mixed into the top layer of compost, wood chips or straw, and covered with a thin layer of peat moss. This mushroom may become a permanent resident of your lawn if you place spawn under patches of turf.



The delicious Shaggy Mane. Photo © Brother Alfred Brousseau.

Macrolepiota procera* and *M. rachodes

The Parasol and Shaggy Parasol are often discovered in grassy patches in forests and along their edges, on hillsides, along paths, in parks and gardens, sometimes under solitary trees. They prefer a somewhat sandy subsoil and adequate moisture.

In the garden, they are likely to flourish in composting areas of either kitchen scraps or lawn clippings. Mix the topmost layer of compost with some peat moss and mix in either cultivated grain spawn or the water and trimmings from last night's Parasol dinner. Cover with leaves to retain moisture.



The delicious Shaggy Parasol. Photo © Fred Stevens.

Pleurotus ostreatus

The Oyster Mushroom is a saprophytic species which happily digests fallen wood in the forest. It likes high humidity and thus is often discovered fruiting from trees and logs which have fallen across a creek. In the garden, it may be grown on decorative arrangements of logs through inoculation via "plugs."

Oysters are a versatile lot, and have been successfully grown on a wide range of materials such as straw, bagasse, wood fibers, cotton processing wastes, paper wastes, corn stover, tea leaves, rice hulls, and even on coffee mulch in orchards -- the list goes on and on. "Blocks" of these materials may be buried among your plantings. The plants provide important humidity and a strategically placed misting sprinkler will also help.

Many cultivated species are available in a rainbow of colors and a wide range of statures, rivaling the finest flowers in their beauty and variety. Some readily available cultures are the white to fawn colored Florida Tree Oyster (*P. ostreatus florida*), the chocolate brown Abalone Oyster (*P. cystidiosus*), the Blue Capped Oyster (*P. columbinus* and *P. ostreatus*) the Golden Oyster (*P. cornucopia* and *P. citronpileatus*) and the striking pink, delicately formed Strawberry Oyster (*P. flabellatosa* and *P. eos*).

And Oyster mushrooms are one of the easiest varieties to grow and fruit.



Oyster mushrooms fruiting from Terri Beauséjour's planter box. Photo © Michael Wood.

Agaricus bisporus* and *Agaricus arvensis

The Portobello, Horse Mushroom, and other meadow type *Agaricus* species are to be found in fields, grassy areas, at the edges of forests and in cow pastures. In the garden, composted horse manure may be mixed with straw, spawn inoculum and soil. This preparation is then incorporated in the area of choice. You may even cut a small disk out of sod or lawn, add the mixture, replace the disk and keep well watered. *Agaricus* prefers a substrate which is not too high in acidity, so a little bit of agricultural lime is often beneficial -- a pH of about 7.0 is recommended.

Lentinula edodes

The Shiitake mushroom grows in open woodlands on the dead wood of broadleaved trees such as oak, alder, birch and beech. In the garden, logs may be inoculated with commercially available plugs and arranged vertically, perhaps partially buried to maintain uprightness and to preserve moisture. The mycelium will travel along the length of the log to permeate it, then will begin to fruit seasonally for up to 15 years, depending on the size of the log and the favorability of conditions. The logs must not be allowed to dry out. Here again, a misting sprinkler is your friend.



Shiitake mushrooms

Hericium erinaceus

The Monkey Head or Pom-Pom mushroom is a snow white coral mushroom resembling a cascade of stalactites bursting forth from decaying wood in the forest. It is very easy to grow in the garden on straw or sawdust "blocks" or in bags, providing it is in an environment of high humidity. It will enliven the darkest of crevices, is an excellent edible, and according to Asian lore, eating this mushroom will increase vitality and vigor.

Morchella esculenta* and *M. angusticeps

Morels are often discovered in newly landscaped areas in fir bark mulch. In the spring, they frequently appear in areas disturbed by excavation, burning, off-road travel, landscaping and flooding. In the garden, a substrate may be prepared from composted household and garden residues. The patch should produce mushrooms the next spring, if adequate moisture is provided. Morel "kits" are becoming widely available commercially -- they come with detailed instructions and are highly recommended as the best way to get started with this slightly more challenging, but worthy genus. What about Chanterelles, Boletes and other mycorrhizal species? You may have the good fortune to naturalize some of these in your garden, but their requirements are much more stringent and far less well understood than the requirements of the various saprophytes we have discussed thus far.

It is significantly more difficult to understand and recreate the symbiosis between the plant or tree, the fungus of choice, and the other beneficial or necessary fungal or bacterial organisms that form the relationship. There is also the lack of commercially available spawn, and growth on agar is slow to nil. However, do not be completely discouraged, as there have been limited successes in cultivation and fruiting of mycorrhizal fungi. For example, some commercial production of truffles is now accomplished through inoculation of seedlings, and it is possible to mail-order truffle-inoculated hazelnut and oak seedlings for your own garden.

It is essential to begin by inoculating young seedlings, or by sprouting the tree seeds directly in sterile agar culture containing spores or tissue from the mushroom variety of choice. In preparation for this adventure, which is potentially very rewarding) it would behoove you to do as much reading and research on the subject as possible, and to possess a high degree of optimism and the patience of a saint.

Obtaining Cultures and Spawn

The varieties presented here, and many others, are available commercially at a fairly reasonable price. Certainly the price of a given culture or kit is within the range of the average potted plant purchased at a nursery. You may also collect and grow your own cultures and spawn. There are several excellent books on the subject of mushroom growing, and there are now a plethora of internet sites offering valuable information, methods and techniques, supplies and sources.

Sharing your Success

Once your mind becomes open to the possibilities, there is hardly a limit on what you can achieve in your garden of fungi. If you are the first on your block with a vibrant and flourishing mushroom garden, you will certainly be the envy of your neighbors and friends, and the talk of the town. Your enthusiasm for this whole new dimension of gardening may well be contagious!

Next Meeting: Wednesday, September 1, 2010

An audio/visual exploration by David Forsyth: "Vancouver Gardens - East Side, West Side". The meeting starts at 7 pm, Burnaby Village Museum, Main Building, on 2nd floor. Refreshment is served. All are welcome. Don't forget to bring your own mug to avoid wasting styrofoam cups! Annual membership \$12.

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Future Speakers

- **October 6, 2010 "Roses" by Brad Jalbert.** Brad is the owner of Select Roses, a farm-style nursery/ greenhouse specializing in the hybridizing and growing of beautiful garden roses. The nursery, located in South Langley, offers the finest in selection and quality of rose bushes in Western Canada. Select Roses was established in 1990 on the same farm that Brad was raised.
- **November 3, 2010 Hardy Orchids by Bill Bischoff.** Award winning and international speaker Bill Bischoff will share his gardening passion for all orchids. Join us for an evening as he explains how one small Phalaenopsis in Toronto, that almost crushed his gardening interest, has grown to over 700 orchids grown in warm & cool green houses, and now has extended to hardy orchids grown in his Surrey garden.



Many thanks to Judy Newton for presenting The Summer Garden in June. She is former special education assistant with UBC Botanical Garden. She contributed her time to speak to us. Her generosity is deeply appreciated.

Out and About

May 1 - Oct. 31, every Saturday, 9am - 2pm. Burnaby Farmers Market at North Parking Lot of Burnaby City Hall, 4949 Canada Way at Deer Lake Parkway.

Sep 4 - 5, Saturday 1pm - 5pm and Sunday 10am - 4pm, The Annual Vancouver Dahlia Society Show at VanDusen Garden Floral Hall: 5251 Oak St @ W 37th Ave, Vancouver. Info: Evelyn 604-437-8395, www.vancouverdahliasociety.com

Sep 9, Thursday 7:30pm, Cedar Series Lecture, GMO and Terminator Seeds, The Old and New at VanDusen Botanical Garden, Floral Hall. April Reeves will be discussing the history and technology of genetically modified organisms (GMOs) with a focus on terminator seeds. As we address the question, "Why should we be aware of terminator technology?" Ms. Reeves will also explore the long term vision and dangers of this technology and what you can do about GE Terminator crops and trees. Bring your questions for answers about all types of GM technology. Tickets: contact 604.257.8666. Info: www.vandusengarden.org

Sep 11, Saturday 10am, Bird Walk at VanDusen Botanical Garden. Meet at the Garden entrance. Join Jeremy Gordon from Nature Vancouver for a guided birding exploration in the Garden. Rain or shine. Limited to the first 20 people. Free for Members or included with Garden admission. For more information on Nature Vancouver, visit www.naturevancouver.ca

Sep 11 - 12, Saturday 1-5pm, Sunday 1-4pm, South Burnaby Garden Club Fall Fair at Bonsor Community Centre, 2nd floor, 6550 Bonsor Ave, Burnaby. We display produce, flowers, plants, hanging baskets, fruits, vegetables, wine, baking, canning and much more from Burnaby gardeners, including a special section for entries from children age 12 and under. We'll have guest speakers raffle draws & entertainment. Entries are open to the public. See the Fall Fair Schedule on our website for entry dates & instructions. Free admission. Info: Dan Oldroyd 604-526-4647, danmarto@shaw.ca, www.southburnabygardenclub.org

Sep 12, Sunday 11am - 4pm, Treefest 2010 at Riverview Hospital, 2601 Lougheed Hwy, Coquitlam. Treefest 2010 is a celebration of environmental stewardship with a focus on the beautiful heritage trees on the Riverview Hospital site. Special speakers include a panel of guests who will share their experiences of living at Riverview as children or working at Riverview for many years. Free. Info: Donna Crosby 604-290-9910, donna@rhcs.org, www.rhcs.org

Sep. 16 - 17, Thursday & Friday 11am - 6pm, Friends of UBC Botanical Garden Indoor Plant Sale at UBC Botanical Garden, 6804 Marine Dr @ 16th Ave Vancouver. Herbs, plants & flowers at student-friendly prices! Free admission. Info: The Shop in the Garden 604-822-4529, fogs@interchange.ubc.ca, www.friendsofthegarden.ca