

Grow your own mushrooms SHIITAKE by the sea

Story and photography
by Janet Wallace



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A shiitake mushroom growing out from an inoculated block of sawdust. The shiitake was picked, sautéed and devoured moments after taking the picture.

Nothing had prepared me for the flavour of a fresh, home-grown shiitake mushroom. For years, I have eaten and fully enjoyed using dried shiitake in stir-fries and in hot and sour soup. Once in a while, I splurged and bought the so-called "fresh" shiitake from the grocery store. But comparing these to my own mushrooms would be like comparing the taste of diluted grape juice to a rich Beaujolais.

The flavour of the shiitake was intense. I couldn't help but close my eyes and sigh with pleasure on the first bite. The texture was dense—more like chewing a tender piece of steak than a mushroom.

I had harvested my mushrooms just before dinner. My partner and I shared two but soon realized that was almost too much (though two was wonderfully decadent). These were huge, much larger than Portobello mushrooms; one was larger than my hand.

Fortunately, this harvest was just the beginning.

The mushrooms came from a Grow Your Own Shiitake kit—a block of sawdust permeated with the shiitake fungus. The block should yield three to five small harvests of mushrooms. However, I had more mushrooms on the way. I had inoculated a few logs with mushroom spawn, which, hopefully, will produce much larger harvests over the course of several years.

Shiitake mushrooms are an exotic element in Atlantic Canadian cuisine, yet are completely at home in our woods. Though they aren't native to Canadian forests, the mushrooms grow well in our climate. Shiitake is a wood-decay fungus (an unattractive title for something so tasty). In the wild, the mushrooms emerge from rotting logs.

On Mothers' Day in 2008, a group of 30 gardeners met in New Horton, along New Brunswick's Fundy coast, to learn how to grow shiitake mushrooms. The workshop was held at An Artist's Garden, the pottery/



Mike Haddad inoculates the logs while Jim Blewett looks on. "The idea of having these things growing in the woods while I'm having my cup of tea," said Jim, "is right up my alley."

painting studio, gallery, bed-and-breakfast, and home of Karin Bach.

David Boyle from Maritime Microbiologicals talked about fungi in Karin's gallery. Images from his presentation were projected on the wall in between paintings and pottery plaques. He described the importance of fungi in our lives—in nature, food making and industry. We were most interested in the edible mushrooms, which are the fruiting bodies of the fungi. Picking a mushroom is like picking a rose; both the fungus and the rosebush will survive.

Growing mushrooms is just another form of gardening: a log is used rather than soil, and spawn is used as seed. David Boyle makes spawn by mating selected spores from shiitake, and then uses the product of this mating (called mycelium) to inoculate a sterilized mix of sawdust, bran, millet and water.

The first step to growing mushrooms is to cut the logs. Healthy hardwood is best—trees that have no obvious bark damage with trunks at least four inches in diameter. It's best to cut the trees in the late

winter or early spring while they are dormant. For the workshop, Karin Bach thinned a stand of yellow birch. We ended up with logs for mushrooms and the remaining trees had more space to grow.

The trees were cut into three and four-foot lengths. To keep them from drying out too much, the logs were stored in a tightly stacked woodpile in the shade. They should sit for at least a week before inoculation.

At the workshop, we split into four groups, each with a sawhorse, drill and stack of logs. We drilled holes over the lengths of the logs, pushed spawn into these, and sealed the holes with hot wax (tainted with cayenne pepper to keep squirrels from eating it).

Over the summer and winter, the fungi will grow in the wood. A year after inoculation, white rings of mycelium form on the cut ends. This signals that the fungus has spread through the log.

The mushrooms don't emerge until the fungus is stressed or "shocked". In Japan, shiitake logs are sometimes laid out on a grid of wire (rebar) rods. To shock them, someone bangs the framework with a mallet. The air resonates with the sound of the clang, and the vibration triggers the fungi to start fruiting (i.e. producing mushrooms).

Another method is to soak the mushrooms in water for a couple of days. To shock many logs at once, David has submerged them (weighed down with cinderblocks) in a lake. For the hobbyist, the bathtub will suffice.

A week later, mushrooms emerge. They sprout all over the log, breaking out of small cracks in the bark. To protect the mushrooms from slug damage, keep the logs off the ground. Again, there is a Japanese method that is aesthetically rewarding (though labour-intensive); whereby the logs are suspended from branches throughout the forest like giant wind chimes.

A more prosaic approach is to sprinkle crushed eggshells, wood

ash or diatomaceous earth around the base of the logs.

A typical harvest is one to two pounds of mushrooms for a four-foot-long log. After that, the log goes dormant until it is shocked again, later that summer or the following year. As a rule a thumb, the greater the diameter of the log, the more years it will produce mushrooms. Some say a year of harvest for each inch of diameter, but David didn't commit himself.

The mushrooms that result are not only beautiful, but also healthy and very tasty. Growing shiitakes is a great way to spend time in the woods, while growing food for the future.

(Janet Wallace is a freelance writer and the editor of *The Canadian Organic Grower*.)