KENTUCKY SHIITAKE PRODUCTION WORKBOOK

Production Options

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KENTUCKY SHIITAKE

Shiitake mushrooms, a gourmet mushroom native to Japan and produced in the United States for several decades, has become a mainstream product found in most national chain supermarkets from Walmart to Whole Foods. This series of publications emphasizes growing shiitake mushrooms on natural hardwood logs. The denser hardwoods (oaks, hickories, chestnut) seem to produce better over the long run, and other hardwoods (maples, sweetgum) may begin to produce more quickly but will exhaust more quickly also.

 Most people interested in producing shiitake mushrooms:
- Select the trees from which they want to cut logs,
- Cut and inoculate the logs (usually in late winter/ early spring)
- Incubate the logs for several months before the logs are ready to produce mushrooms.

 If you would like to be involved in the shiitake business but prefer not to go through those steps, you may choose other options you like better.

Logs for Sale

 If you have acres of woodland and are interested in managing that woodland for the highest value sawtimber in the future, a professional state service forester or consulting forester will probably recommend that you do some timber stand improvement (TSI). This improvement may involve removing smaller diameter trees, trees damaged by storms, or trees of species that are not economically valuable in the timber market that are crowding your potentially valuable timber trees. There is enough interest in shiitake production now that people who want to grow them as a main business or side business are looking for suppliers of hardwood logs of the right lengths and diameters for their operations.

 Cutting logs and major branches to size for shiitake production (usually between 3 and 4 feet in length and 3 to 8 inches in diameter) can produce income for trees that otherwise may not have commercial value and requires fewer cuts than cutting the same trees for firewood. Take into consideration the cost of your equipment, the cost of running that equipment, and your labor cost, and sell the logs at a fair price. Usually logs are priced at $1 to $3 each.

3-4 feet

3-8 inches

Cut logs to this size:
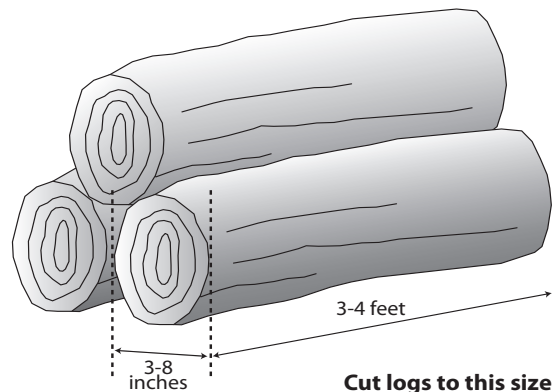
Inoculated Logs

 If you are not interested in waiting for the logs to produce mushrooms once they have been inoculated, you could also buy the spawn, cut the logs, inoculate them, wax them, and sell the inoculated logs to people who would like to *grow* the mushrooms but who may not have a good facility for cutting and/or inoculating the logs. Inoculated logs can be sold in bulk (10s, or even 100s) or they can be sold individually as a boutique item, such as a log people can keep in their kitchen or garage and keep moist so that it will produce mushrooms. Logs sold in this last manner can also be smaller logs but not shorter than two feet long and probably not smaller in diameter than 4 or 5 inches.

 Again, you will need to calculate what you have put into the logs in materials and labor, but bulk logs probably would sell for about $5 each. The smaller, boutique logs can be sold for a higher price, as you would choose the cleanest, most attractive logs for that purpose and package them carefully for shipment. (Small plastic window boxes might be just the right size for one log.)

Value-added Products

Shiitake mushrooms can be sold fresh (restaurants, farmers markets, supermarkets, internet) or dried, although the dried shiitake supply from Asia may make it difficult to be price competitive in that form. Another option is to make some kind of value-added product from the shiitakes. This can be done with mushrooms you grow yourself or from mushrooms grown by others and purchased in bulk. Some kinds of products that have already been sold in the marketplace include soup mixes, dip mixes and powdered dried shiitake to be used like salt or pepper (think Mrs. Dash, for example).

To make any kind of prepared food product:
- Check with the Family and Consumer Science extension people at your county extension office to learn the federal and state regulations that control the kind of product you wish to make.
- Work with a nutritionist to figure out a good recipe.
- Design a label that includes your ingredients as well as their nutrient and calorie content.
- Locate a commercial kitchen or certified kitchen for bulk production of your product.
- Research the market for similar products online and decide on a competitive price for your product.
- Package and sell your product at all venues that allow sale of home-based food products. These may include Kentucky state park stores, farmers markets, roadside stands, and possibly local (not national chain) food stores, especially natural food stores.

Summary

If you are interested in the production and sale of shiitake mushrooms but are not sure if you want to be monitoring logs for several years, there are other options for working with other shiitake growers to make a product that will be economically profitable.

Mushroom illustrations by Dennis Duross, Extension Communications Specialist

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Shiitake Kabobs

From Ed Burleson, Mountain Fresh Shiitake Mushrooms

Ingredients
- 1 cup fresh shiitake mushrooms, stemmed
- 1 teaspoon vegetable oil
- 1 cup fresh pineapple, cut into 1½-inch cubes
- 1 cup green pepper, cut into 1½-inch slices
- 1½ cups cherry tomatoes
- 1 cup pearl onions
- 2 cups pineapple juice
- ⅔ cup cider vinegar
- 3 tablespoons soy sauce

Directions
- Sauté mushrooms in oil until partially cooked.
- Thread 4 skewers alternately with shiitake, pineapple, green pepper, cherry tomato and pearl onion.
- Combine juice, vinegar and soy sauce.
- Baste skewered vegetables (kabobs) with sauce.
- Broil in oven in foil-lined pan (or grill) for 1 to 2 minutes until heated thoroughly.
- Baste kabobs with sauce often during cooking.
- Serve with pita bread or rice.

Serves 2 to 4.