

# 4 From Mushrooms to Maple Syrup: *Specialty Products from Your Woods*

We tend to think of tropical forests as being the source of many raw materials, and they are, but it might surprise you how much your very own small patch of woods has to offer. Do you build furniture in your workshop, make handicrafts, or make jams and jellies from fresh fruit? If so, the raw materials might be available right out your backdoor.

Depending on the type of soil and the trees and plants growing on your property, you may be able to grow or harvest a wide range of woodland products for your own use. In some cases, you can even make money from your woods while balancing other values like wildlife habitat improvement, recreation, and aesthetics.

There are so many kinds of renewable products to be harvested from the woods, that it seems limited only by your imagination.

## Specialty Foods

Chokecherry jelly, birch beer, elderberry wine and maple syrup are just a few of the many foods made from trees of the forest and forest edge. In some parts of the state, you have the option of planting butternut or black walnut trees and harvesting your own crop of nuts in the future. Special varieties of apple, pear, sour pie cherry, and plum trees survive northern winters and thrive in the long days of summer. A few lucky folks in protected areas also have success with hardy peaches. Old apple trees can be reclaimed, too, with proper pruning and care.

Sun loving trees like chokecherry, elderberry, and juneberry can be encouraged by a combination of planting, pruning, and eliminating competing trees. Providing more sunlight, water, and space is the key to encouraging them to grow vigorously and



*Tapping sugar maples for syrup*

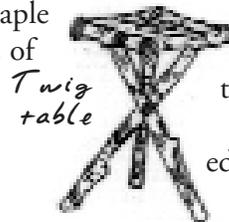


*Growing shiitake mushrooms on inoculated oak logs*

provide a healthy supply of raw renewable materials.

Let's look at sugar maple trees, the source of the raw material for maple syrup. If you have several good sized sugar maples, they may already produce enough sap each spring to produce all the syrup you need (one gallon of maple syrup is produced from boiling down 40 gallons of the watery sap collected from the tree). Clearing out other trees that crowd healthy sugar maples will allow the maples to grow into a hearty "sugarbush." To do this, you may also have to cut down some healthy maples to allow remaining ones to grow larger.

Maple trees are tapped in the spring by drilling a hole into the trunk and inserting a tap spile (*a small metal tube about two inches in length*). The flowing maple sap runs daily during a few weeks in early spring when the nights are below freezing and days are warm. One large sugar maple can produce more than 50 gallons of sap a day under perfect conditions. Done properly, tapping does no harm to the tree.



*Twig table*

If you have noticed wild mushrooms growing on your property, you may have a supply of tasty exotic mushrooms that can provide a little side income. Mushroom companies that market exotic mushrooms are always looking for wild mushrooms like matsutake (which grows on hemlock), chanterelles (which are often found in mixed hardwoods and pine), black trumpets, chicken of the woods, and others. Buyers typically provide information on identification and proper collection.

### **Cultivating Woodland Gardens**

More and more woodland owners grow wild herbs and mushrooms in their woods for their own use and for profit. Exotic shiitake (she-a-tah-kay) mushrooms, which bring a good price on the specialty food market, can be cultivated on freshly cut hardwood logs in the woodland understory with a small investment. Oyster mushrooms are even easier to grow than shiitake.

Highly valued ginseng can be cultivated in the shady understory on moderately

well drained sites with loamy soils. Ginseng requires little yearly maintenance and brings one of the highest prices for medicinal plants in the world. It is also a perfect companion crop for sugar maple. If you decide to tend to a sugarbush it would be worth your while to look into growing ginseng, too. Ginseng is picky about where it will grow, however, so a soil test is essential. Since wild ginseng is also a protected species, you must be licensed through the Maine Department of Agriculture if you plan to sell any of your harvest. Licensing is a simple process, however, and shouldn't deter you if your woods have the appropriate growing conditions.

Medicinal herbs like echinacea and St. Johnswort, two of the most widely used herbs in the country, can be cultivated in the backyard where the lawn meets the woods. Several herbs not only provide medicinal value, but also provide food for butterflies and add attractive color to your yard. Are you interested in producing your own

honey? Bee keeping and wildflower gardens are mutually complementary; wildflowers flavor the honey and bees help regenerate the flowers.

### Craft Materials from the Woods

Speckled alder is flexible enough for bentwood furniture and for stickwood baskets used for planters, willows make pliable raw materials for twig baskets, while ash and maple are good choices for walking sticks because they take the stress of pounding without splitting.

Craft materials from your woods seem limited only by your imagination. Local commercial florists often buy greenery for

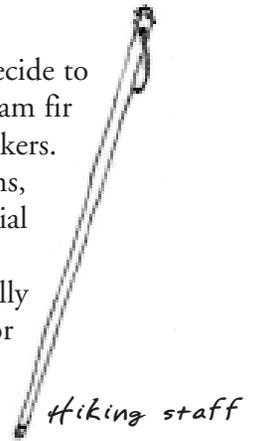
seasonal arrangements. You may decide to make Christmas wreaths from balsam fir or sell balsam fir tips to wreath makers. Requests for tips, pine cones, acorns, and other decorative natural material used in making Christmas wreaths and holiday arrangements are usually advertised in the local newspaper or in the weekly Swap and Sell guide in November and December.

Pruning balsam fir trees for tips can also help shape the young trees into nice Christmas trees over several years. A by-product of tipping and wreath making are the balsam fir needles, which can be collected and stuffed into small pillows to make fragrant sachets.

### High Quality Furniture Wood

If you have maples on your property, you may have the raw material for valuable veneer used to make fine furniture, musical instruments and clocks. "Figured" maple wood with unique decorative grain, such as curly maple and birdseye maple, can be worth thousands of dollars when quality is high. Both are rare and quality varies from tree to tree — as do prices. If you plan to cut firewood, it is certainly in your best interest to check your maple or assess any other potentially valuable veneer tree before you cut it into cordwood. It would be a shame to burn up one tree that is valuable enough by itself to pay your annual property taxes.

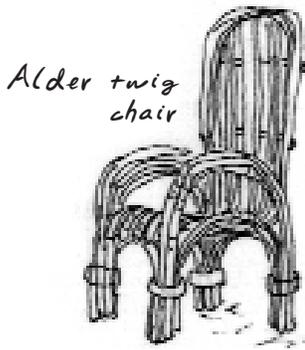
You might consider milling some lumber from your own land if you build furniture as a hobby. Portable saw mill operators will often come right to your property to saw lumber from logs that have been cut and piled in a working area. This is an inexpensive way to get quality lumber, and the



*GINSENG*  
*Panax quinquefolium*  
8 to 24 inches tall



*Ash basket*



furniture you create will have a history tied directly to your land. It is also a way to recapture the beauty of older trees before they become diseased and are no longer valuable for lumber.

If you do have lumber produced on your land, be sure to find out if the saw mill owner is covered in terms of liability. In case of an accident, landowners are usually protected from legal action only if no fee is charged for a service. It is always a good idea to check with your insurance agent to see if your homeowner policy covers accidents of this nature.

## RESOURCES

### Background Information

*Special Forest Products.* This growing Internet site covers a wide range of special products, with separate pages explaining how to grow, harvest, and market them. Directories list people interested in buying or selling products. Extensive links to related sites. Internet site at <http://www.sfp.forprod.vt.edu>

### Christmas Wreaths and Trees

*Growing a Continuous Supply of Balsam Fir Wreath Brush.* University of Maine Cooperative Extension. Bulletin #7089. 4 pp. Free. To order: 800-287-0274 or the Internet at <http://www.umext.maine.edu>

*Making Balsam Fir Wreaths.* University of Maine Cooperative Extension. 4 pp. Bulletin #7012. \$.75. To order: 800-287-0274 or the Internet at <http://www.umext.maine.edu>

*Marketing Maine Christmas Wreaths.* University of Maine Cooperative Extension. 2 pp. Bulletin #3019. Free. To order: 800-287-0274 or the Internet at <http://www.umext.maine.edu>

*So You Want to Grow Christmas Trees.* University of Maine Cooperative Extension. 2 pp. Bulletin

#7048. Free. To order: 800-287-0274 or the Internet at <http://www.umext.maine.edu>

### Ginseng

Eastman, L.M. 1976. *Ginseng, Panax quinquefolius L. in Maine and its Relevance to the Critical Areas Program.* Has basic information pertaining to ginseng and its habitat and reproduction in Maine. Planning Report No. 16. State Planning Office, Augusta, Maine. Contact: 207-287-3261 or the Internet at [www.state.me.us/spo](http://www.state.me.us/spo)

*Maine Ginseng Growers Association.* A non-profit association that provides information on growing and marketing Ginseng in Maine. Contact: P.O. Box 382, Andover, ME 04216-0382.

Persons, W. Scott. *American Ginseng: Green Gold.* 1994. A grower's guide. Includes history of ginseng and use. Contact: Bright Mountain Books, 138 Springside Rd., Asheville, NC 28803.

### Herbs

*Avena Institute.* A non-profit botanical organization that offers a wide variety of classes on gardening, including classes on organic gardening of medicinal herbs and how to make herbal remedies. A native woodland plant restoration project is underway in their gardens, which are open to the public every Wednesday from 1:00 - 4:00 p.m. from mid-June through mid-October. Contact: Avena Institute, 219 Mill Street, Rockport, ME 04856 or 207-594-0694.

*United Plant Savers.* A non-profit association dedicated to replanting At-Risk native medicinal plants. Contact: 802-479-9825 or the Internet at <http://www.plantsavers.org>

### Maple Sugaring

*How to Tap Maple Trees and Make Maple Syrup.* University of Maine Cooperative Extension. 4 pp. Bulletin #7036. Free. Contact: 800-287-0274 or the Internet at <http://www.umext.maine.edu>

*Maple Production Videos.* Travel with Cornell maple specialist Lewis Staats through the sugar

bush and sugar house to learn how to collect sap and produce maple syrup efficiently. Designed for the experienced or novice maple products producer, and of special interest to people considering getting into the business. For specific information, request a catalog from Cornell Cooperative Extension. Contact: 607-255-2080 or the Internet at <http://www.cce.cornell.edu/publications>

## Mushrooms

*Growing Mushrooms.* Personal Contact: Mike Dubois. Provides technical information on growing mushrooms. Also a broker for mushroom starter spawn. Contact: 207-364-8632.

*Oyster Creek Farm Mushroom Company.* Sells mushroom growing kits (shiitake) for non-commercial growers and buys (and sells) wild mushrooms. Contact: RR 1 Box 320, Damriscotta, ME 04543 or 207-563-1076.

*Maine Mycological Society.* A membership organization devoted to a better understanding of wild mushrooms and our environment. Holds field trips and special workshops. Contact: 1808 B Forest Avenue, Portland, Maine 04103 or 207-878-2060.

## Rustic Furniture

*Building Rustic Furniture.* Alan Bradstreet, a member of the Maine Woodworkers Association, builds rustic furniture and helps organize educational events on furniture building. Personal contact: 856 Lawrence Road, Pownel ME 04069 or 207-688-4728.

*Center for Furniture Craftsmanship.* Offers courses on rustic furniture making. Rockland, ME. Contact: 207-594-5611.

*Haystack Mountain School of Crafts.* Offers course on rustic furniture making. Deer Isle, ME. Contact: 207-348-2306.

Mack, Daniel. 1999. *Simple Rustic Furniture.* A how-to guide on building rustic furniture by the expert. 160 pp., with photographs. Lark Books. \$18.95. Order through bookstores.

## Lumber From Your Land

Bragg, Don C., and Douglas D. Stokke. 1994. *Field Identification of Birdseye in Sugar Maple.* Gives procedures for the field identification of birdseye in standing sugar maple trees. USDA, Forest Service, Research Paper NC-317. Contact: Peter Lammert, Utilization Forester, Maine Forest Service at 800-367-0223.

Edmonds, Robert L., et al. 1988. *Lumber From Local Woodlots.* Information on harvesting timber, sawing logs and seasoning lumber. Cornell Cooperative Extension. #123NRAES-27. \$8.00. To order: 607-255-2080 or the Internet at <http://www.cce.cornell.edu/publications/natural-resources.html>

*Portable Sawmills, Figured Wood Identification, Wood Products.* Peter Lammert, Utilization Forester, Maine Forest Service. Personal contact: 207-287-4995 or e-mail at [peter.lammert@state.me.us](mailto:peter.lammert@state.me.us). Please include telephone number in e-mail contacts.

## Making Crafts

Pollock, Lorna. *How to Make a Pine Needle Basket.* Booklet comes with kit materials to make your first baskets. Instructions included for more ornate baskets using material from your woods. Ages 10 - Adult. \$17.95. Available from Acorn Naturalists (#KIT-7118). To order: 800-422-8886 or the Internet at <http://www.acornnaturalists.com>

Kate. *Two-Hour Nature Crafts.* Sixty nature crafts with complete instructions. All the materials you need are right out your back door. \$21.20. Available from Acorn Naturalists (#EE-7125). To order: 800-422-8886 or the Internet at <http://www.acornnaturalists.com>

## You Can Grow Mushrooms!

**F**resh, flavorful gourmet mushrooms to accompany fresh vegetables from the garden? It's not difficult to do! It does require a time commitment, but it's low-tech, inexpensive and rewarding.

Shiitake mushrooms (she-a-tah-kay), are favored in the Far East where they grow wild on decaying logs. Due to their popularity in Asian cuisine, shiitake have also been cultivated on oak logs in Japan for centuries. Considered to be the Japanese equivalent of “an apple a day”, Shiitake mushrooms are high in B vitamins and protein, and low in fat and cholesterol. Recent studies also indicate other health benefits, from stimulating the human immune system in order to inhibit cancer growth to lowering “Bad” blood cholesterol. But eating Shiitake is not like taking medicine. Shiitake are one of the tastiest mushrooms on the market, and they are no more difficult to grow than fresh vegetables.

Very little investment is needed to begin and, once a mushroom site is established, little maintenance is required to keep mushrooms producing for four to six years. However, growing mushrooms is a long-term family project. The process takes patience, since it will be anywhere from six months to almost two years before mushrooms are ready to pick. Each harvest period can be timed to last several weeks. Mushrooms not used or sold fresh can successfully be dried for future use.

Mushroom gardens are established by inoculating fresh cut wood with mushroom “spawn”. Not much space is needed, and some people grow them in shady spots in backyard house lots. One mushroom gardener even chose to move his mushroom garden to a new property when he sold his house. The move was a little cumbersome, but entirely successful. The mushrooms are still producing on a regular basis.

### GETTING READY

1. Review information in *Backyard Family Project #1: Scouting Your Land* on the importance of marking your property boundaries.
2. Identify small hardwoods on your property. You will need fresh cut logs that are 4” to 5” inches diameter across the trunk and three to four feet long. The logs will have to be rearranged occasionally, so consider how heavy they will be to lift when they are saturated with water. You don't want them to be too heavy, but you also don't want them to be too small. Logs less than 4” in diameter (*across the cut ends*) are not ideal; they tend to dry out quickly. Ideally, you will cut hardwood trees that are poor growing (*but not diseased*) to use for your mushroom crop.
3. Shiitake mushrooms grow on stacks of hardwood logs. Your mushroom garden shouldn't be too remote: choose a place you visit on a regular basis. Access to electricity (*or a cordless drill*) on inoculation day and running water for the growing site (*several times a year*) will also be necessary. Look for a location in deep shade during the growing season, and protected from excessive drying winds — especially during the winter. Although Shiitake will not grow on softwoods, softwood stands provide good shade and protection, so you can always move the hardwood logs into your hemlock stand if you have one. If you don't have a protected location, you'll need to cover the growing site with burlap in the winter.

4. Review Safety Chapter. A safety review is always a good idea, but you need not own a chainsaw to cut enough logs to grow mushrooms. A good, inexpensive, non-mechanized buck saw or bow saw available at hardware or sporting goods stores will do the job.
5. This is not a one person job. It's a great project for a family, because everyone will have an assigned task on inoculation day. If you are taking this on as a one-person project, enlist some neighborhood help on inoculation day in return for an offer of fresh mushrooms later on.

## TOOLS

### On inoculation day, you will need:

- ✿ 10 - 15 fresh cut hardwood logs 4" - 6" in diameter across the cut ends, and 3' to 4' long. Logs over 6" in diameter or smaller than 4" don't produce well. Oak is best, but hop hornbeam, birch, beech, maple, and other wood with dark, thick bark will work. Softwoods will not work. Dead trees or downed logs won't work. Trees can be cut in the winter, but inoculation must occur in early spring before higher temperatures encourage decay.
- ✿ Shiitake "plugs" inoculated with shiitake spawn. These are available by mail from a variety of suppliers. Be sure to let them know the climate for your part of the state, so they supply a suitable strain. Inoculation of logs should occur within a few days after the spawn arrives.
- ✿ An electric drill with a 5/16" wood bit. You can rent a drill if you don't own one.
- ✿ 1 pound box of canning wax (*available in most grocery and hardware stores*).
- ✿ Something to melt the wax in (*Canned Heat works well*).
- ✿ A brush or turkey baster to apply the hot wax to the logs.
- ✿ Water
- ✿ A wire brush

## DOING THE ACTIVITY

**Time Frame:** Initially, a full day for inoculation. Follow-up requires an hour every two months for maintenance, another full day when inoculation is complete, and regular attendance during harvest periods.

1. Cut logs into regular lengths. Three foot logs are easy to stack and manageable to move. All logs should be the same length.
2. Remove mosses and lichens from logs with a wire brush, but be careful not to damage the bark.
3. Drill 5/16" diameter holes, 1" to 1 1/2" deep. Holes should be drilled all the way around the log and spaced about 3 inches apart. A diamond pattern of holes works well, allowing an even distribution of the spawn throughout the log.
4. Immediately after drilling, tap inoculated wooden plugs gently into holes until they are flush with the bark. Avoid damaging the bark and wash your hands frequently to avoid contaminating the spawn with "weed" organisms from the bark or surrounding areas. This is important, since Shiitake do not compete well with native organisms and contamination can mean you get few mushrooms for your efforts.

5. Immediately seal each hole with melted wax, but do not seal the cut ends of the logs.
6. Stack the logs “log cabin” fashion in a four-sided square (*or use another method recommended in the inoculation kit you buy*). Make sure the stack has good air flow but is out of drying winds.

## FOLLOW UP

Logs should be restacked every 2-4 months. The spawn run is complete when fuzzy white blotches appear on the log ends. The thicker the log, the longer it takes for this to occur. At that point, logs must either be soaked in clean cold water overnight in a large barrel or trash can, or soaked with a sprinkler for a day. Then restack the logs. Mushrooms should be ready to pick approximately 20 days after soaking. After the harvest, the logs need a rest before the next soaking. The logs should produce mushrooms for several years with proper care.

