Backyard Woods
bring your vision to life

Grow and Collect Special Forest Products 11

Let your imagination run wild

In Your Backyard Woods

The term "special forest products" describes products generated from plants or fungi that can be harvested from your backyard woods. Unlike wood products, special forest products have diverse uses and come from a large variety of sources: **foods** from mushrooms, nuts, fruits, and sap; **medicinals** from herbs and other plant parts; **decoratives** from stems, branches, flowers, boughs, and buds; and **handicrafts** from bark, burls, conks, and stems. In some areas, the special forest products are more valuable than the wood products.

Foods
Berries, wild fruits, mushrooms, nuts, and maple syrup are examples of the many food items to be found in your backyard woods. What you have and what you can grow depend on your location.

Berries and other fruits
Your family can enjoy the berries and other fruits you find or grow in your backyard woods. The most well known are probably the wild blueberry and the big huckleberry. Other popular wild berries are gooseberries, currants, strawberries, blackberries, blackcaps, and raspberries. Lesser known berries are lingonberries, juneberries, elderberries, mulberries, coralberries, salmonberries, and thimbleberries. Native wild fruits include mayhaws, pawpaws, persimmons, chokecherries, crabapples, Oregon grape, and several types of plum. Staghorn sumac, prickly pear, deerberry, passionflower, and black cherry are also used for their berries and fruit. Cultivation of berries and fruits is rewarding, because their produce can be harvested 2 to 3 years after planting.

Mushrooms
Mushrooms—like other fungi—are saprophytes, which means that they live on dead and decaying material. When temperature, light, moisture, and nutrients are right, the microscopic mycelium (white and black strings of fungi) forms small buds that grow into the fruits we know as mushrooms. Many species of mushrooms are inedible or poisonous, so the ability to identify different types is critical to harvesting and cultivating. The most commonly collected wild mushrooms are chanterelle, morel, (black and yellow) matsutake, and boletus. Cultivated mushrooms include shiitake, chanterelle, oyster, and enoki.

As soon as 6 months after logs are inoculated, shiitake mushrooms may be ready for harvest.

WARNING:
Do not eat any wild mushroom without first obtaining an identification from an expert. Toxins are found in many different kinds of mushrooms. Most poisonous mushrooms are not fatal to humans, but they may produce nausea, diarrhea, or hallucinations when eaten. Only six species of North American mushrooms, out of several thousand species, are considered deadly poisonous.

Cultivation of shiitake mushrooms can be rewarding and challenging. They can be cultivated in virtually every part of the country, in small and large operations, either indoors or outdoors. The primary growing medium for shiitake is logs cut during the dormant season from living decay-free trees. This is a potential use of small trees removed around preferred trees. (See the Backyard Woods Tip Sheet on Help Your Preferred Trees Grow for more information.) White oak, maple, and sweetgum are good species, but other species will also work. Red oak and pine should be avoided. Cut logs that are 3 to 5 feet long and 3 to 6 inches in diameter, with the bark intact. Two weeks after being cut, logs are inoculated with spawn (live fungus). Spawn can be purchased as dowel plugs or sawdust blocks from spawn producers throughout the United States and Canada. Different strains are better suited for different climatic conditions. The inoculation process consists of drilling each log with 35 to 40 holes 6 inches apart in rows offset and spaced about 2 inches apart. A dowel or plug is placed in each hole and sealed with a thin coat of hot wax. The logs are then stacked in at least 60 percent shade. (A woods of mixed needleleaf and broadleaf trees is ideal.) Moisture content is critical. Logs should never dry out, but should not be so wet as to produce mold. Fruiting will usually occur in 6 to 18 months and continue for 3 to 5 years.

Nuts

Acorns, beechnuts, black walnuts, hickory, pecan, and pine nuts are commonly used for food and commercial purposes. Acorns are the most abundant nut because there are more than 60 types of oak trees and all produce edible acorns. Oaks are divided into two groups: red (or black) oaks that produce nuts with a bitter taste, and white oaks that produce a considerably sweeter nut.

Beechnuts are small and triangular and are found within the small burrs that appear after the beech tree leaves begin to fall. They are best gathered from lower branches just prior to dropping, before small animals have a chance to forage.

Black walnuts are valued for both their nuts and their shells. The shell of the black walnut is used for metal cleaning and polishing, oil well drilling, paints, explosives, and cosmetic cleaners. They can be gathered and sold commercially.

The most desirable hickory nuts come from shellbark and shagbark hickory trees. Both have sweet nuts that vary in size and are encased in hard, thick husks that turn from green to brown in the fall.

Pecan is a member of the hickory family. It grows in the wild, primarily in the lower Mississippi River Valley in an area extending westward to eastern Kansas and central Texas, and eastward to western Mississippi and western Tennessee. Pecans are grown commercially throughout the southern part of the United States. Pecan trees begin to bear when they are about 10 years old.

Pine nuts are not true nuts since they lack a woody covering. The western portion of the country provides the majority of the edible pine nuts. Pine trees that bear edible fruit include the ponderosa, Coulter, sugar, and Digger pines, but the most popular is the common or Colorado pinyon and single-leaf pinyon. Seeds of these pines have the size and appearance of puffed rice. Wild pinyons do not bear full crops until they are about 75 years old.

Maple Syrup

North American maples are the only maples in the world that produce maple-flavored sap for syrup. Sugar maple is the tree most often tapped. Black maple, a close relative to sugar maple, is also a good sap source. It is also possible to make syrup from red maple, silver maple, box elder, and even white birch sap, but the sugar maple produces 50 percent more sap with higher sugar content than these trees. Therefore, it will take considerably more sap trees to produce the same amount of syrup.

A tapped sugar maple yields about 10 gallons of sap in a year.

Trees 10 inches in diameter and larger (measured 4.5 feet above the ground) are tapped. A tap is a hole drilled into the tree trunk into which a metal spout is driven and a bucket or plastic bag is hung to collect the sap. In an average year, each sugar maple tap yields 10 gallons of sap.

Overtapping damages a tree's health. General guidelines recommend one tap for a tree 10-15 inches in diameter, two taps for a tree 16-20 inches, and three taps for a tree 20-25 inches. A young vigorous tree is best for tapping because it can rapidly produce new wood to cover the tap hole.

Maple tree sap is boiled until it thickens into sweet syrup. About 30 to 40 gallons of sap are needed to make 1 gallon of pure maple syrup.

Medicinals

Your backyard woods may contain plants that can be used for medicinal purposes. You can harvest naturally growing plants or grow them in your woods.

A broadleaf woods is best for growing medicinal plants. Selecting medicinal plants that are native to your location makes your work easier and more productive. In ideal situations, cultivation requires minimum disturbance of the area. Unwanted plants are removed and seeds or seedlings are planted. In other situations, underbrush and weedy plants are removed, and the ground is worked into beds with hand tools, rototiller, or tractor, and then planted. The type of cultivation you choose depends on your growing conditions.

To be marketed as medicinals, plant products first must be proven safe and effective according to U.S. Food and Drug Administration (FDA) standards. About 25 percent of all prescription medicines used in the United States contain active ingredients extracted from plants. Plants and plant products that do not meet the strictest FDA standards or have not been tested, but are believed to have medicinal benefits, are marketed as dietary supplements in the United States. These products are legally considered food items, and product labels cannot make claims about their medicinal benefits. More than 25 tree species, 65 herbaceous plants, and 29 shrubs have been listed by the U.S. Pharmacopoeia for their medicinal value and are marketed as dietary supplements.

By far, medicinal and dietary supplements are the most valuable segment of the special forest product market. Between $7 billion and $8 billion is the estimated value of the worldwide market, and some estimates go as high as $14 billion annually. Europe is the largest market for these products, representing one-half of the worldwide demand.

The future markets for these products appear prosperous. There is a dramatic increase in demand for natural products, including a growing interest in alternative medicines. Many of the most popular dietary supplements are overharvested in woodlands. For example, some of the most profitable plants (ginseng and goldenseal) are in short supply. Both ginseng and goldenseal can be cultivated in your backyard woods, provided you have the right conditions—broadleaf trees on north- and east-facing slopes. Both plants need deep well-drained soils with high organic matter content and partial shade for goldenseal to high shade for ginseng. If you like gardening, are patient, and also appreciate learning by trial and error, the personal and financial rewards from growing medicinal plants can be exceptional.

You can find plant identification books at the library or bookstore to help you identify medicinal plants that are in your backyard woods.

Decoratives

Stems, branches, cones, vines, leaves, and small plants found in your backyard woods can be used for home decorating and sold to craft stores or wholesalers. Here are just a few examples of how plants and parts of plants can be used in decorating:

- Needleleaf boughs for Christmas wreaths
- Grape vines for wreaths
- Young flexible willow stems for baskets or furniture
- Red stemmed dogwood, cork screw willow, and decorative buds in dry floral arrangements
- Cones of all sizes and shapes for various uses
- Blossoms like witchhazel and cherry in fresh floral displays.

If your backyard woods does not have the plants you want, consider adding them. An annual soil fertility program and an aggressive pruning regimen may be necessary to produce the high quality plant material you need. When you own a few acres, there usually is a place just right for growing the plants you need.

Handicrafts

The woods in your backyard may contain a host of material that can be hand crafted by you or sold to crafters to make objects ranging from pencils to art. Parts of trees such as limbs, branches, twigs, bark, and knotholes can all be turned into things of beauty in the right hands.

Burls are one of the best sources of beautiful wood grain. A burl is produced where an injury or other external stimulus has affected the growth pattern of the tree, causing a deformity. The resulting wood grain patterns may be wavy, swirled, marbled, or feathered. Woodcrafters value all of these characteristics.

Imaginative people can even use conks (fungi fruiting structures on tree trunks), pine needles, and roots to produce beautiful and useful objects. Materials from your backyard woods that can be used for handicraft products are almost limitless.

Marketing Special Forest Products

No one ever makes money growing anything; they make money selling it. If you decide to sell some of your special forest products remember one thing: marketing matters.

A burl has unique wood grain patterns valued by woodcrafters.

In the right hands these “artist conks” are transformed.

Markets can vary from the roadside stand to international markets.

- Generally, markets for special forest products are "niche" markets—small, very specialized, and with only a few buyers.
- Production is often seasonal (for example, nuts, berries, mushrooms, flowers), or consumption is seasonal (for example, Christmas wreaths or boughs). This means that production labor is highly concentrated and that products may need to be stored for months.
- Some products, such as mushrooms and berries, are highly perishable. This feature increases costs and risks for storage and transportation between you and the consumer.
- Other producers may be reluctant to share information on their sources of product, methods of production, or potential markets. This reluctance can make it difficult for you to enter the market.

You need a strategic marketing plan, which should evaluate three things: your competitors, the business environment, and your customers.

Getting Started
Get to know your backyard woods; there is more there than meets the eye. You and your family can explore it in all seasons of the year and discover new wonders. Enjoy it, use it, make things from it, taste it, and care for it. You may even be able to make some money from it.

If you need help to get started, there are books, publications, periodicals, associations, and wholesale buyers that can help you. A good place to start is your local Cooperative Extension Service or www.backyardwoods.org.

In the Forest

Forests were used for special forest products long before they were harvested for timber. Today most special forest products are still gathered from the forest. The most popular gathering places are Federal, State, and other public forests. Many of them sell permits and provide information on how to identify and harvest specific products. Gathering and selling special forest products from public forests helps the local economy by supplementing local incomes. Some public forests are managed for special forest products. Management increases the quantity and quality of the products, controls the harvest, and prevents damage to the special plants and to the rest of the forest. Growing the products best suited to the specific site on a sustainable basis requires the application of both sound science and art.

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