

Harvesting and Marketing Medicinal Wild Plants

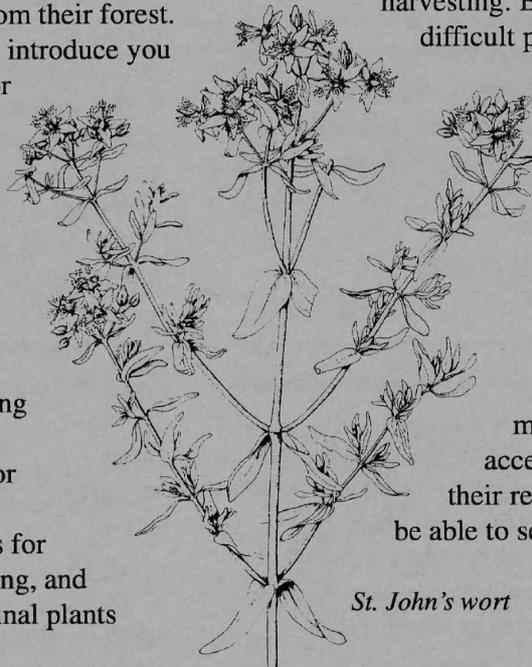
S. Clements

Did you know that the bark of willow shrubs and trees can be used as an analgesic? Or that St. John's wort, a pesky weed, can be used as an expectorant, as a topical pain reliever, or as an antidepressant? Of the world's quarter million plant species, about one-fourth have been used at some time for medicinal purposes.

Numerous plants throughout the Pacific Northwest have medicinal properties. Some of these plants are important remedies in Native American and folk medicine. Some are sought by pharmaceutical or herbal companies as bases for prescription and over-the-counter drugs or for dietary supplements. More and more of these plants are attracting interest from consumers interested in natural products.

For woodland owners, wild medicinal plants are a potential source of additional income from their forest. This publication will introduce you to the possibilities for harvesting and marketing plants with medicinal properties. This introduction will:

- Define medicinal plants
- Discuss considerations for marketing medicinal plants
- Give references for identifying them
- Present guidelines for harvesting, handling, and cultivating medicinal plants



St. John's wort

What are medicinal plants?

Medicinal plants are plants or plant parts with medicinal properties. Actually, it's the chemicals in plants that yield the medicinal properties. Richard Alan Miller, in his book *Native Plants of Commercial Importance*, makes a distinction between medicinal and pharmaceutical herbs based on their potential uses:

"A *medicinal herb* is sold for its alleged use, while a *pharmaceutical herb* has physical chemistry of interest to a manufacturer."

In this publication, the term "medicinal" refers to both types of herbs.

Marketing medicinal wild plants

Finding a buyer or market is one of the most important parts of commercial harvesting. Be aware that it can be a difficult process.

Before you harvest a single wild medicinal plant for commercial sale, contact buyers and find out what they will buy. Buyers may be particular about quantity, condition, and processing of the medicinal plants they will accept. If you don't meet their requirements, you may not be able to sell your product.

Several sources of potential market information are:

- *The Herbal Green Pages*—available from Herbal Growing and Marketing Network for \$25.00 plus \$2.00 shipping, PO Box 245, Silver Spring, PA 17575 (717-393-3295)
- Herb Research Foundation—1007 Pearl Street #200, Boulder, CO 80302
- American Botanical Council—PO Box 201660, Austin, TX 78720
- American Herbalist Guild—Box 746555, Arvada, CO 80006

Check with your local Extension forester for more information about buyers of wild medicinal plants.

Although the best market potential for medicinal plants is for export, data indicate the value of United States imports of medicinal plants is as much as 10 times the value of our exports. This discrepancy is due partly to the special handling requirements for medicinal plants and partly to the labor-intensive nature of processing. Thus, domestic markets should be available if growers, harvesters, and processors can develop efficient processing methods and are willing to work to develop a market niche.

Market niches are available and increasing. Some estimates place the increase in demand for medicinal plants at 10 to 20 percent annually. In order to tap this potential demand, harvesters, growers, and processors will need to identify domestic and export buyers and deliver a quality product.

Identifying medicinal plants

Many wild plants growing in Oregon have medicinal values, and many references are available to identify them. Some of these references are listed on page 4.

It's very important to correctly identify the desired medicinal plant. Plants that look similar can have drastically different chemical properties. Don't rely on common plant names or a verbal description to identify medicinal plants. Common names can change from region to region, and verbal descriptions may omit a critical identifying characteristic.

Harvesting and handling medicinal wild plants

Wild medicinal plants generally are collected in one of five forms: roots, bark, foliage or leaves, flowers, or seed. In any of these forms, harvesting and handling have a significant effect on the quality of the final product.

Harvest timing is the first thing affecting quality. Each plant part is best collected at a specific time of year. If you want to harvest for quality, you'll need to learn something about the plant's life cycle and growth behavior. The table on page 3 provides some general guidelines for harvesting different plant parts.

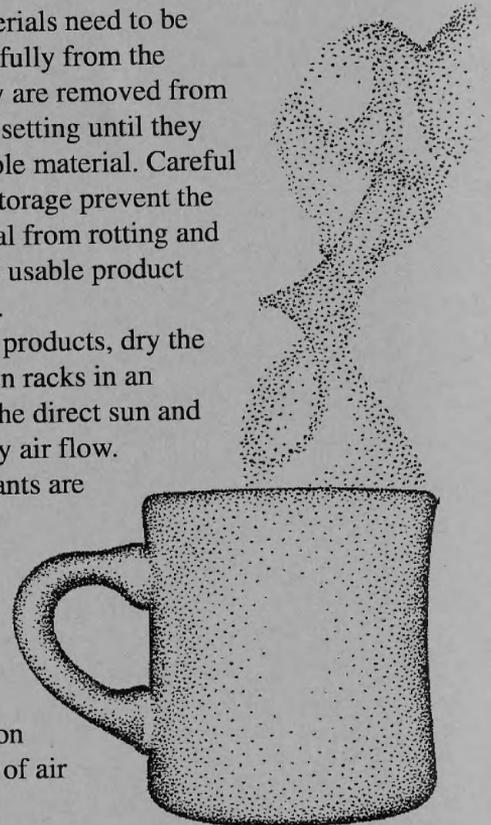
No matter what species or part of a medicinal plant you're harvesting, never harvest in areas that have been sprayed with insecticides or herbicides, or that have been exposed to the dust and fumes of heavy traffic. Such contaminants can render the plants poisonous.

How the plant part looks when it's harvested also contributes to quality (see page 3). Basically, any plant part that looks discolored, damaged, or diseased shouldn't be harvested.

Plant materials need to be handled carefully from the moment they are removed from their natural setting until they become usable material. Careful drying and storage prevent the plant material from rotting and yield a more usable product (see page 3).

For dried products, dry the plant parts on racks in an area out of the direct sun and with a steady air flow.

Once the plants are dry, store large quantities of the material in sacks in a dry location with plenty of air circulation.



Harvesting and processing plant parts for medicinal uses

Plant part	Harvest timing	Processing	General comment
Roots	Annuals: harvest just before flowering. Perennials/biennials: harvest in fall or early spring.	Wash roots to remove dirt, and slice or chop them to enhance drying if desired. Chop size depends on market.	
Bark	Typically collected during the dormant season when the sap isn't flowing.	Chip bark into semi-uniform pieces before drying.	Don't remove all of the bark from a tree; if you do, the tree will die. For tree species that sprout from root stock, cut down the tree <i>above</i> the root crown before barking.
Foliage or leaves	Harvest when leaves and foliage are fully developed. Some plants will allow multiple harvests during one season. Avoid leaves that are discolored or disfigured by disease or animals.	Avoid over-drying leaves. Cracking, crimping, or splitting stems will reduce drying time.	
Flowers	Typically gathered when they first open.	Dry flowers in the shade to avoid discoloring. Whole flowers can be bunched and dried hanging upside down.	Flowers also are collected for floral arrangements. If collecting flowers for this purpose, select plants for shape and color.
Seeds	The time when seeds are harvested depends on the species. Harvest seeds at the point of proper ripeness.		Seeds typically are collected by hand, which is labor intensive. Special tools or equipment can be designed for the plant being harvested.
Adapted from Miller, 1988			

Cultivating medicinal plants

Cultivating medicinal plants is closely tied to conserving the wild stock of these plants (Foster, 1995). Most medicinal plants collected in the wild can be cultivated. Cultivation is attractive because some wild medicinal plants are being over-harvested and their existence in the wild is threatened. Cultivation of medicinal plants has several advantages: a consistent, predictable supply; an

opportunity to select for desirable genetic traits; and protection of diminishing wild supplies.

As with any agricultural undertaking, growing medicinal plants should involve careful planning. R.A. Miller's book *The Potential of Herbs as a Cash Crop* is an excellent beginning point for learning about the commercial cultivation of medicinal plants. Other resources about starting a small herb farm are available from county offices of the OSU Extension Service.

For more information

Brill, S., and E. Dean. *Identifying and Harvesting Edible and Medicinal Plants in Wild (and Not So Wild) Places* (Hearst Books, 1994).

Foster, S. *Forest Pharmacy: Medicinal Plants in American Forests* (Forest History Society, 1995).

Miller, R.A. *The Potential of Herbs as a Cash Crop* (Acres U.S.A., 1985).

Miller, R.A. *Native Plants of Commercial Importance* (OAK, Inc., 1988).

Both of Miller's books are available from OAK, Inc., 2185 SE Portola Drive, Grants Pass, OR 97526 (541-476-5588).

Moore, M. *Medicinal Plants of the Mountain West* (Museum of New Mexico Press, 1979).

Moore, M. *Medicinal Plants of the Pacific West* (Museum of New Mexico Press, 1993).

Robinson, P. *Profiles of Northwest Plants* (Farwest Book Service, 1979).

Additional *Special Forest Products* publications from the OSU Extension Service

Harvesting and Marketing Edible Wild Plants, EC 1494, by Steve Clements (Oregon State University, Corvallis, 1998). \$1.00

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