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# HERB OVERVIEW

**HORTICULTURE SYSTEMS GUIDE**

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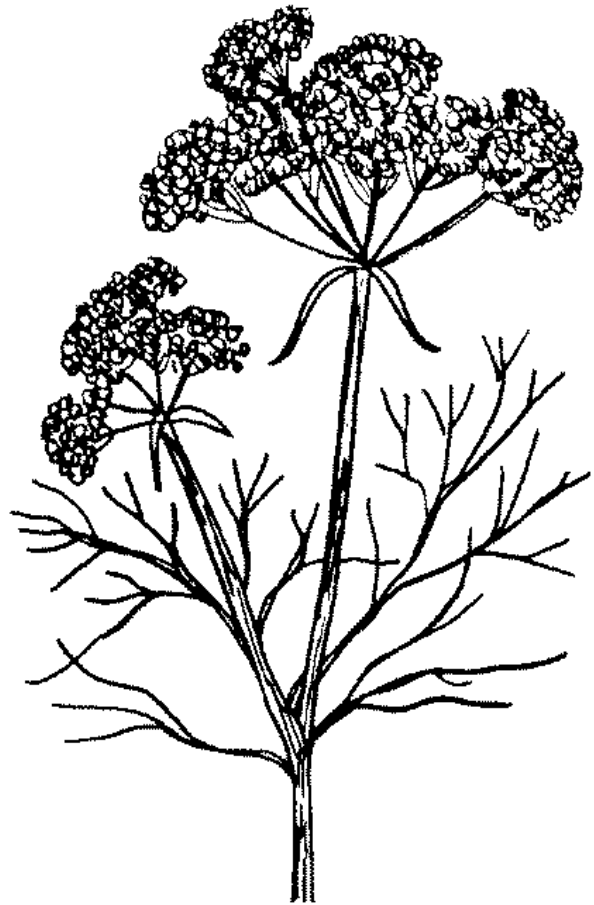
**Abstract:** *The term "herb crop" can refer to a number of different agricultural enterprises. Native plants known as "medicinal herbs" have been proposed as an alternative to commodity crops. Businesses can be based on culinary seasoning, fragrance, handicrafts, teas, landscaping, or other uses of herbs. This overview explores production and marketing considerations, especially for small growers and organic growers.*

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## Introduction

Public awareness of the use of herbs in the culinary and decorative arts, landscaping, and alternative medicine is at an all-time high in the U.S. At the same time, commodity farmers are looking for ways to replace lost income from such crops as corn, wheat, and tobacco; and conservationists seek to promote sustainable ecosystems. Consumer interest in clean, natural food is high. Interest in organic products is growing.

It is important to distinguish the conventional worldwide botanicals market (which provides plant materials widely used in the flavor,



fragrance, and nutraceutical industries) from the fledgling U.S. alternative herb movement. Some promising alternatives are emerging – for both small and large-scale U.S. sustainable producers – but access to conventional marketing channels (characterized by production contracts, selling on the spot market, and supplying manufacturers) is very difficult for most farmers and often unprofitable.

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Companies that manufacture mass-marketed nutraceuticals seek the cheapest raw materials possible, almost invariably sourced overseas. While marketing channels for sustainably produced herbs are still under development, usually they consist of some form of “relationship marketing.”

Only sales of culinary herbs are currently tracked by USDA/AMS. USDA has recently become more interested in supporting medicinal herb production. Crop insurance may soon be available for alternative herb crops.

### Organic/non-irradiated production

Mass market sales of nutraceutical products leveled off across the board in 1999, with St. Johnswort dropping by 33%. However, opportunities may exist for organic herb producers and manufacturers of non-irradiated herbal products, in response to consumer concerns about safety. The focus is shifting to production of a high-quality product for a growing market.

Organic methods for herb crops differ little from organic methods for vegetable and grain crops. For more information, please see the ATTRA “Soils” and “IPM” series. For more information on organic certification, see the ATTRA publications *Organic Certifiers* and *Resources for Organic Marketing*. An update on implementation of the federal organic certification standards is available from ATTRA, upon request.

Alternative producers of culinary herbs typically grow small plots in raised beds. Field production of herbal root crops customarily involves raised rows. The most detailed information on specific crops is still R. A. Miller’s *The Potential of Herbs as a Cash Crop*, but *Herbal Renaissance* by Steven Foster, Richard Cech’s series of pamphlets, and *Medicinal Herbs in Garden, Field, and Marketplace* by Sturdivant and Blakley are very useful references. For pests and diseases, *Rodale’s Garden Problem Solver* is useful. One of the best information sources is other herb farmers, accessed through e-mail discussion groups (see

### **Constraints on New Growers**

- Heavy initial investment
- Lack of experience with perennial, multi-year crops
- Lack of production budgets
- Lack of research into diseases and pests
- Confusion between small and large-scale production methods
- Lack of established markets
- Lack of a mechanism such as marketing orders for avoiding boom-and-bust cycles
- Lack of pricing information and a pricing structure
- Competition from established foreign industries with cheaper labor costs
- Unavailability of appropriate-scale equipment
- Pest and disease outbreaks in commercial field production of native medicinals
- A tendency toward vertical integration of successful enterprises, with manufacturers taking the lead in producing their own raw materials
- A severe agricultural labor shortage in 1999 and 2000 in the U.S.

list below), where herb farmers discuss problems and opportunities with each other.

For farmers in most parts of the U.S. (outside of the Pacific Northwest), especially new farmers, the best opportunities probably lie in integration of herb enterprises into a mix of alternatively marketed farm products, or as a segment of an agricultural recreation farm. Alternative marketing depends heavily on a producer’s ability to communicate with the public, offer a “total farm experience,” and cultivate a one-on-one relationship with the consumer.

### **Production of herb plants**

Often, a headline proclaiming “Profits in Medicinal Herbs” leads into an article on a greenhouse business selling landscape plants to homeowners—actually, one of the fastest-growing types of herb business.

Since few herb species are direct-seeded in the field, the greenhouse industry produces most herb plants needed either for field production or

for retail sales. For more information on the specialized sources and methods commercial growers rely on for their starts, request ATTRA information on plug production. For more information on production of herb plants for landscaping and home garden purposes, see the ATTRA publication *Sustainable Small-Scale Nursery Production*.

## Fresh-cut and dried culinary herbs as specialty crops

Culinary herbs are listed as specialty crops by the USDA and tracked by the Agricultural Marketing Service. Most herbs for the fresh-cut market are produced hydroponically in greenhouses. For details of hydroponic production, see the ATTRA publications *Hydroponic Vegetable Production* and *Organic Greenhouse Herb Production*. Also see *Organic Plug and Transplant Production*.

The vast bulk of U.S. culinary herb production occurs in California and Florida, areas that can insure a year-round supply to wholesale terminals. The two culinary herbs most in demand are parsley and cilantro, which are marketed to wholesalers as specialty vegetables. A niche market exists for growers who can reliably supply other fresh-cut herbs to upscale restaurants in large urban centers. This market is limited to the number of upscale restaurants.

The nation's largest grower and marketer of fresh herbs is located in Encinitas, CA. This company is fully integrated, one of several grower-packers with facilities for shipping year-round to wholesale and retail customers throughout North America. Its greenhouse production method provides greater control over insect-borne diseases. A significant barrier to developing local wholesale markets for fresh culinary herbs has been inability of local growers to guarantee year-round supplies in most parts of the U.S.

The USDA Agricultural Marketing Service reports on origin, supplies, and prices for fresh herbs arriving at nineteen U.S. wholesale terminals (such as Hunt's Point, NY). Air freight and condition of the product upon arrival (as

determined by USDA inspection) can significantly affect prices received. These reports may be accessed on-line at:

<http://www.ams.usda.gov>. Although there are no official USDA grades for herbs, bulk produce buyers have their own standards. Most herbs are shipped in 1-lb. film bags kept under refrigeration. Controlled atmosphere packaging is becoming customary for shipping herbs to distant markets.

### Related ATTRA Materials

- ❖ **Echinacea as an Alternative Crop**
- ❖ **Ginseng, Goldenseal, and other Native Roots**
- ❖ **Lavender as an Alternative Crop**
- ❖ **Milk Thistle factsheet**
- ❖ **Mint Production (as an agronomic crop)**
- ❖ **Organic Greenhouse Herb Production**
- ❖ **St. Johnswort as an Alternative Crop**
- ❖ **Suppliers of Plugs for Medicinal Herb Crops**
- ❖ **Compost Teas for Plant Disease Control**
- ❖ **Direct Marketing (includes section on Internet selling)**
- ❖ **Disease Suppressive Potting Mixes**
- ❖ **Food Dehydration**
- ❖ **Hydroponic Vegetable Production**
- ❖ **Integrated Pest Management for Greenhouse Crops**
- ❖ **Mushroom Cultivation and Marketing**
- ❖ **Organic Greenhouse Vegetable Production**
- ❖ **Organic Plug and Transplant Production**
- ❖ **Suppliers of Organic, Non-GE, and Heirloom Vegetable Seed**
- ❖ **Sustainable Cut Flower Production**
- ❖ **Sustainable, Small-Scale Nursery Production**

Opportunities for marketing dried culinary herbs, which are field-grown in many parts of the world and still gathered from the wild in others, are very limited for U.S. growers. In fact, the world supply of most types is more than ample (1). Some opportunities may lie in organically raised dried culinary herbs, as part of a direct marketed product mix. Farmers' markets, mail order, internet sales, and farm store sales are favorite marketing methods. Herbal teas are discussed below.

The brightest prospects for production of herbs and spices as field crops appear to be in the Pacific Northwest. In contrast, growers in the Southeast are plagued by insect and disease pressures. Of the annual and biennial aromatic seed herbs (anise, coriander, caraway, ajwain, dillseed, fennel, fenugreek, cumin, etc.) only dillseed is produced on a large scale in the U.S., most of it for essential oil. Dillseed production is increasing among farmers in the Pacific Northwest, in response to falling prices for mint oil on the world market. Other seed and essential oil crops are being investigated.

Research at North Dakota State University on certain aromatic spices may be accessed at the North Dakota Extension website for production details (see Web Resources, right).

The Minnesota Department of Agriculture, along with the USDA SARE program, has funded trials of culinary and fragrance herbs native to Minnesota, such as nettle, catnip, dandelion, scullcap, pennyroyal, valerian, licorice, wormwood, motherwort, raspberry (for leaf), bloodroot, and highbush cranberry.

### **WORLD WIDE WEB RESOURCES**

North Dakota Extension: [www.ext.nodak.edu/extpubs/alt-ag/herbs.htm](http://www.ext.nodak.edu/extpubs/alt-ag/herbs.htm)

The Herb Growing and Marketing Network is on the Internet at <http://www.herbnet.com> Click on "Herb World."

For wholesale price quotations on essential oils see the commercial site <http://www.essentialoil.com>

For herb sites and web business services: <http://www.herbalconnection.com>.

*Natural Foods Merchandiser* back issues may be found at <http://www.nfm-online.com>. *NFM is now part of Healthwell Exchange at:* <http://exchange.healthwell.com>

Frontier information on essential oils standards, cryogenic grinding, and other topics may be viewed at <http://www.frontierherb.com>

The Missouri Alternatives Center provides useful information on alternative crops, including medicinal herbs: <http://www.ext.missouri.edu/agebb/mac/>

Two-page factsheets on herbs have been prepared by North Carolina State University Extension horticulturists and may be viewed at <http://www.ces.ncsu.edu/hil/> *Goldenseal, chives, basil, lemon balm, ginseng, and caraway, as well as seed/plant sources for medicinal and culinary herbs.*

New Crops Center, Purdue University: *See CropSEARCH for key words.* <http://www.hort.purdue.edu/newcrops/>

Visit an echinacea farm in Canada at: <http://www.geocities.com/HotSprings/5760/>

Detailed information on producing basil has been published by North Carolina Extension and Purdue Cooperative Extension. These publications may be viewed on their respective websites.

#### **Selling on the Internet for small farmers:**

[www.LocalHarvest.com](http://www.LocalHarvest.com)  
*Free listing in 2000; \$40 in 2001*

[www.smallfarm.com](http://www.smallfarm.com)  
*Farm listing is \$29.*

[www.growingformarket.com](http://www.growingformarket.com)  
*Offers "farm tour" page free of charge to listees.*

U.S. exporters can join a new USDA online list of commodity exporters. Register at <http://www.fas.usda.gov/ussupplier>. Potential buyers access at [www.fas.usda.gov/buying.html](http://www.fas.usda.gov/buying.html)

Related site: American Institute for Shippers' Associations [www.shippers.org](http://www.shippers.org)

## Medicinal Herbs and Nutraceuticals

The campaign to enlist phytomedicines as adjuncts to natural therapies has led a majority of U.S. health-care consumers to look favorably on products made from plants. The theory that common weeds found in backyards could serve therapeutic purposes has evolved into a highly structured industry. Both the herbal supplement and the nutraceutical industries were effectively created in the U.S. by 1994 legislation classifying herbal products as “food supplements.”

A nutraceutical is a blend of a food and a medicinal plant (2). This new product category

...encompasses any food ingredient which is taken for its health-giving properties, from ginkgo potato chips to ginseng candy bars, Chinese herb cereal, echinacea fruit drink, and kava corn chips. (HerbalGram No. 44, p. 34).

Commercialization of native plant species on a huge and unforeseen scale now worries conservation groups, since 90% of plant materials are still gathered from the wild. Large-scale cultivation of over-harvested botanicals may be one avenue leading to conservation of natural resources. This is how the sustainability issue is framed for herbs. However, crop budgets have not been worked out for most such species, and market niches may be shallow if huge numbers of growers enter at the same time, all growing the same thing.

Organic cultivation of native plants having medicinal qualities for a local or regional market concerned with highest quality products may be the answer for some. On-farm value-added herbal enterprises may be another answer.

Sometimes it is difficult for a prospective grower to determine the end use of a plant that is being promoted. For example, lavender is often said to be of value in alternative medicine, but few know that what is meant is the utilization of lavender essential oil in aromatherapy. While a market for fresh and dried lavender flowers does exist, the demand is not large.

*Prospective growers should keep in mind that just because a North American native (or naturalized) plant seems to be used widely in retail products, this fact alone does not mean that domestic farm production supplies the industry.*

Other market sectors sometimes described by the media as “medicinal herbs” include retail sales of plants and seeds (mostly to home gardeners), sales of plugs and transplants to other growers, sales of bulk dried herbs to tea and tincture manufacturers, essential oils production, and direct-marketed value-added herbal products (such as homemade salves and tinctures).

The market for medicinal herbs is globalized, as well as segmented. Lee Sturdivant and Tim Blakley (3) surveyed 24 manufacturers of teas and tinctures in the U.S. to determine which raw botanicals American growers would be likely to supply. (Survey replies may be found in the Appendix of their book.) Besides echinacea, ginseng, and goldenseal, replies varied from “weeds,” to “those we can’t grow in the Pacific Northwest,” to “anything we can’t get from Trout Lake or Pacific.” Recent reports indicate that small tincture makers in the Pacific Northwest are being squeezed due to lack of raw materials.

Medicinal herbs have been proposed as alternatives for commodity crops such as wheat, corn, and tobacco. Some medicinal herbs are multi-year root crops (ginseng, goldenseal, echinacea) utilized as extracts and tinctures. Others are essential oils crops intended for use in aromatherapy.

Agriculturists have begun to ask two questions: Can large farmers who need to diversify (former tobacco, wheat, or cotton growers) switch to raising a medicinal herb as a diversification strategy to replace lost income? Can small (often beginning) farmers profitably raise a medicinal herb or herbs as their principal cash crop? According to those with experience in the industry, the answers are both “yes” and “no”—and “it depends” (4).

**Simply owning land, or living in the country, or desiring to enter farming is not sufficient qualification to supply raw materials for the international medicinal herb industry.... Opportunities exist, however, to supply niche markets and develop a cottage industry based on herbs.**

### The large-scale farmer

Experienced, large-scale commodity crop farmers wishing to get into herb production must be willing to:

1. Commit to travel and personal study (including computer networking) to research the crop they wish to grow—especially how it could be marketed;
2. Invest the required amount of capital; and
3. Purchase specialized equipment typical of vegetable production, such as mechanical transplanters and root diggers.

They must also be prepared to deal with emerging diseases promoted by monocropping and must keep abreast of constantly changing market requirements. Only a handful of large phytomedicine manufacturers secure any raw materials from U.S. farmers.

New herbal products are introduced to the mass market with the assistance of formulators—companies that exist solely to work out formulas for such products. Oils extracted from garlic, borage, and evening primrose are the basis of a few herbal supplements. Other products are based on standardized, dried extracts.

A large body of research on agricultural production of particular medicinal herbs may be accessed through library database searches. Typically, such research has been conducted outside the U.S., especially in Germany and in China. This is one source of information utilized by overseas investors wishing to establish a plantation in the U.S. to produce raw materials for their manufacturing facilities.

They often hire expertise as well, in the form of herb crop consultants. See Fig. 1 for a schematic

of current marketing channels for botanicals. This chart does not reflect the considerable—but diminishing—role played by wild harvesters in supplying botanicals.

Prof. Don Shuster of the University of Wisconsin, Madison, with the assistance of growers, has developed an economic budget for echinacea (5). A study of the economics of production of echinacea, valerian, and yerba mansa has been done by the University of New Mexico (6).

### **Direct Marketing for Small Herb Growers**

Retail marketing opportunities for fresh or dried medicinal herbs are opening up for small growers—particularly in the Northeast, where fresh and dried herbs (as well as tinctures) may be found at farmers' markets. The work of picking out stem pieces, making sure leaves are dried out of the sun to preserve their color, and properly drying and storing roots may seem tedious. However, customers with whom the small grower has built a relationship choose to pay for hand-crafted results.

Dried herbs typically sell in quarter-lb. bags. Appropriate drying equipment is necessary, as is washing equipment for roots. Quality medicinals can't be obtained by mechanized harvest, according to some knowledgeable professionals.

For more information on drying, see the ATTRA publication *Food Dehydration*. For more information on direct marketing of herbs, including case studies, see *Growing for Market (26)* (May 2000).

### The small farmer

Since established botanicals buyers typically have 1000 to 5000 lb. minimums, small-scale growers often find they do best by adding value. Such producers can learn to formulate and manufacture their own line of herbal products—tinctures and teas, for example, or products for external application. Formulation of herbal tea blends generally includes balancing a number of ingredients and may require some knowledge of alternative medicine. Herbal products not intended for

ingestion are favored by small producers, since such products are subject to fewer regulations. Although studies demonstrating health benefits from ginseng soap or wild yam salve are lacking, a product's connection with a popular herb undoubtedly helps the bottom line. For some products currently on the market, the connection may be in name only. According to *The Herbal Connection*, mass-marketed "wild yam" products actually utilize USP progesterone from soybeans or cultivated yam, rather than wild yam diosgenin (7).

"Small farmer" means different things in different parts of the country. Used here, the term refers to the scale of operation that can support one family member. An unfilled niche for small herb farmers has been noted in the Pacific Northwest, where supplies of many botanicals sought by tincture makers have become scarce. In other parts of the country, herb enterprises commonly include a mix of selling to restaurants, selling at craft shows and festivals, maintaining an herb garden (for display) as part of an entertainment farm, or selling herbs and herbal products at a farmers' market or through a CSA. A niche might be very small-scale production of very high quality essential oils for the aromatherapy market. Another niche might be producing medicinal herbs to the specifications of a local alternative health practitioner.

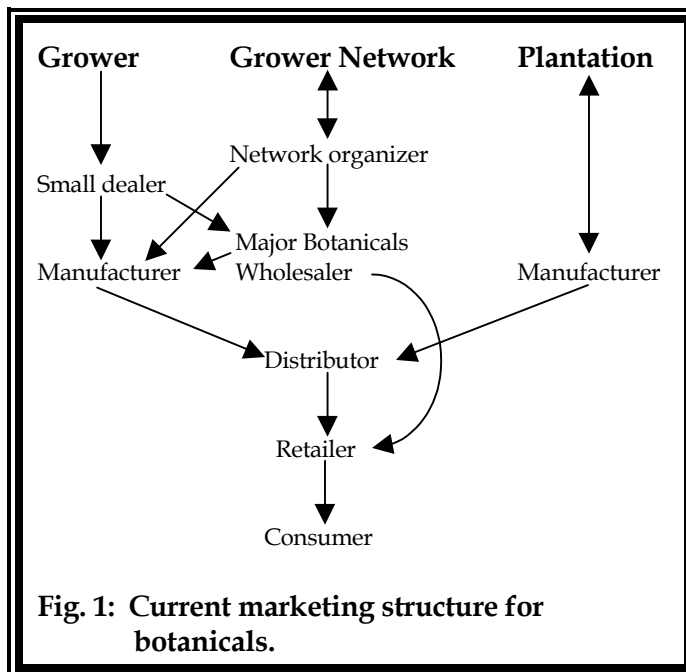
A market is emerging for certain herbs used by Asian, Latino, or other cultural groups. Another cultural niche is for herbs used ritually in the practice of folk religions. Even major western religions such as Judaism, Islam, and Christianity

have specific herbal preferences for ritual use. Meeting the needs of such markets can provide a challenging opportunity.

**A grassroots movement advises farmers to build local niche markets and farm-raise native herbs primarily out of concern for overharvested native ecosystems.**

A grassroots conservation movement advises building local niche markets and farm-raising native herbs. United Plant Savers (8), a conservation-minded network of organizations (including seed companies), leads this effort. Local, alternative marketing options also include selling fresh and dried herbs to tincture-makers (particularly in New England and in the Pacific Northwest) and selling directly to alternative practitioners.

Some advocates have emphasized the importance of non-cash (altruistic, aesthetic, and spiritual) rewards in small-scale herb farming – at least at the outset.



**Fig. 1: Current marketing structure for botanicals.**

**An ATTRA Publication for Beginning Farmers:**

*Evaluating a Rural Enterprise*

U.S. Research on Medicinal Herb Crops

Minnesota grower Renne Soberg, with support from the Minnesota Department of Agriculture and USDA's Sustainable Agriculture Research and Education (SARE) program, has since 1997

investigated production and marketing of medicinal herbs in Minnesota (9). Currently, a Minnesota herb producers' cooperative is being formed, with funding in place for a market research study of practitioners.

Several other SARE regions are supporting similar research through 2000. The University of Maryland Department of Conservation and Natural Resources is investigating herb crops for riparian buffer strips.

**Information on farm plans and crop production details for medicinal herbs is still mainly lacking.** Lee Sturdivant and Tim Blakley have just published *Medicinal Herbs in the Garden, Field & Marketplace: A Bootstrap Guide* (3) with guidelines for growing dozens of popular herb crops. Richard A. Cech (10) of Horizon Herbs has a series of booklets on similar topics. **No detailed guidelines and crop budgets have been published to date for farmers – especially for organic producers.**

### The emergence of diseases

Monocropping of popular medicinal herb crops has been complicated by emergence of diseases that do not occur in native populations. For example, ginseng growers have been plagued by root rots, while goldenseal and echinacea contract viral diseases typically spread from nearby fields by insects such as the leafhopper. Frontier Herbs has begun a study of polyculture of medicinal herbs to try to replicate their native habitat. Industry professionals such as Cech advocate small mixed plantings of many different herbs and question whether the motive of the grower should be efficient monocropping for maximum profit.

### What is the best medicinal herb to grow?

Demand for specific types of herbs is market driven. Herbal conferences invariably include a workshop or speaker on market directions or specific plant species for which which demand may increase in the future. Steven Foster, well-known writer on aromatic and medicinal plants, has a simple answer to the often-asked question,

#### **Whole Foods' Top Ten Sellers in 1998 (Natural Food Markets)†\***

Echinacea  
St. Johnswort  
Ginkgo biloba  
Garlic [oil]  
Saw palmetto  
Asian ginseng  
Goldenseal  
Aloe  
Siberian ginseng  
Valerian

† latest available figures

#### **IRI's Top Ten Sellers in 1999 (Mass Markets)†\***

Ginkgo‡  
St. Johnswort‡  
Ginseng‡  
Garlic [oil]  
Echinacea/Goldenseal  
Saw palmetto  
Kava  
Pycnogenol®/Grapeseed  
Cranberry‡  
Valerian root

† first 8 mos.

‡ sales down from 1998

\* From HerbalGram 44, p. 40, tables 5, 7.

“What is the best medicinal herb to grow?” He responds, “The one for which you can create a market” (11). Mass markets are typically created by publicity, ranging from accidental mention to a highly organized campaign featuring medical studies. While markets do exist for a relatively large number of species, for any particular plant these may turn out to be small and very specialized niche markets. The *Whole Foods'* annual Herb Products Sale Survey lists the ten top-selling herb supplements in health food stores. The International Research Institute (IRI) publishes a similar list for mass markets.

Only certain of these herbs can be economically raised in the U.S., and some are by-products of other industries. While ATTRA publications provide production information on ginseng, echinacea, goldenseal, lavender, mint, and St. Johnswort, **ATTRA does not evaluate or suggest the economic viability of any specific herb crop.**

### ***A Word to the Wise***

As with any emerging field of economic activity, herb scams are beginning to surface. Some involve the Internet, another new and relatively unregulated area. The following tips will help in avoiding rip-offs.

1. Investigate thoroughly the background of any individual who contacts you offering to sell you the opportunity to "get in on the ground floor" raising some highly publicized medicinal herb crop. A list of reputable professionals who sometimes act as consultants may be found on p. 286 of *Medicinal Herbs in Garden, Field, and Marketplace*. You will need to contact them (they do not contact you) and make an agreement to contract for their services. Although this list is by no means all-inclusive, it is wise to begin the search for a crop consultant with people known in the industry, who have a reputation to uphold.
2. Be wary of attempts to collect money from you to "build a processing plant" for your eventual crop. Usually, a company already engaged in manufacturing and well known in the pharmaceutical or cosmetics industry will seek to enlist experienced farmers to grow new raw materials for a product line. They then make available to the farmer their expertise, assistance, seeds/plants, and even shared equipment. They already own the processing plant. The farmer may need to bear the expense of shipment, however. More is needed to get into herbal products manufacturing than an empty building, a farmer, and a venture capitalist. That "something more" includes knowledge of economic botany and experience in all the facets of producing and marketing a quasi-pharmaceutical food supplement product.
3. Be aware that all sales in the botanicals market are private sales, not tracked by USDA. USDA does not at this time recognize medicinal herbs as crops. There is no set farmgate price, but it is a matter of a private agreement between buyer and seller. In addition, certain crops are regulated by state departments of agriculture. St. Johnswort and milk thistle are banned as noxious weeds in some western states. Permits are required in many states to raise or harvest native plants such as ginseng.
4. Many herbal products are currently being marketed on the Internet, more or less anonymously. It is extremely difficult to find a way to protect the public from Internet marketing scams. At present anyone can build a website, formulate a product classified as a food supplement under the Dietary Supplements and Health Education Act of 1994, and advertise it, using a drop box to receive orders. Moreover, Internet sales (as with most mail-order sales) are untaxed by either state or federal government.

Legitimate community development efforts to build processing facilities for a local crop always have the support of respected and well-known entities such as state agriculture and rural development departments, well-known nonprofits, and broad-based local community leadership. The Small Business Administration can enlist such organizations as the Service Corps of Retired Executives (SCORE) for help in planning a new enterprise or advice in formulating a product.

5. The government does not underwrite land or equipment purchases to enable an individual to get into farming, to start a business, or to diversify crops.

The American Herbal Products Association (12) publishes a directory of wholesalers and manufacturers of herbal products. Other sources of information on potential buyers include the annual directory issue of *Natural Foods Merchandiser* (August) (13), the Southwest School of Botanical Medicine website (14), the *Herbal Green Pages* (15), and various on-line classified ad sites. The *Herbal Green Pages* profiles about 3,500 small herb businesses. An extensive list of resources has been published by Sturdivant and Blakley (3).

An example of an alternative herb growers' group is the Great Northern Botanicals Association (16). In cooperation with state agencies, it is helping develop markets (both U.S. and overseas) for herb farmers in the Pacific Northwest.

#### Listservers:

To subscribe to the interactive ginseng discussion group, send an e-mail to: <mailserv@cariboo.bc.ca>. Type "subscribe PANAX [Your Name]" in the message body.

To subscribe to a new list on market farming, post a message to: <lyris@franklin.oit.unc.edu> "subscribe market-farming"

Archives of the New Crops listserv <newcrops@purdue.edu> are located at <http://bluestem.hort.purdue.edu/Newcroplistserv/Search.html>

## Herbs for essential oils

Essential oils derived from plants are utilized extensively in the flavor and fragrance industry. In general, food-grade essential oils are preferred over vegetative matter as flavoring agents in food products to avoid development of molds and off-flavors. In addition to commercially prepared foods, over-the-counter medicines and many personal care products contain essential oils as flavoring agents. Essential oils produced on-farm by simple methods, such as those outlined in *Rodale's Illustrated Encyclopedia of Herbs* (17), may be used in recipes for body care and household

products. Aromatherapy, an alternative medical specialty, is the newest industry utilizing essential oils.

The major U.S. essential oil crop has historically been mint, produced in the Pacific Northwest under state marketing orders and in parts of the Upper Midwest, especially Indiana. Crude distillation begins in the field, but access to a processing plant is necessary. Although it is possible to distill essential oils at home by using a pressure cooker, only a few drops at a time are produced (18). Commercial production requires very large quantities of biomass, stringent quality control procedures, and laboratory testing facilities.

Mint production in the Pacific Northwest declined by half in 1999 due to worldwide overproduction. The essential oils industry in this region is now actively seeking alternative crops. **For production information on mint in the Pacific Northwest, request the ATTRA material on *Mint*.**

At the same time that mint has been declining, a U.S. lavender industry has developed in western Washington, around Sequim. In July 2000, in cooperation with Washington State University Cooperative Extension, the Lavender Growers Association will host the first North American Lavender Conference—featuring production, processing, marketing, agri-tourism, and value-added products. **For information about lavender, request the ATTRA publication *Lavender as an Alternative Crop*.**

*Essential Oil Crops* by E.A. Weiss (1997) covers cultivation, harvest, and distillation of each family of plants. *Essential Oils* by Brian Lawrence (1976-78, 3 vols.) is recommended for the aromatherapy industry.

Lawrence (19) notes that by far the most demand exists for citrus oils, which are by-products of the citrus juice industry. More information about distillation of citrus essential oils may be found in *Quality Control Manual for Citrus Processing Plants* (20). In a publication prepared for the U.S. Forest Service, Margaret Thomas describes the

production of various oils extracted as a by-product of forestry—including cedar leaf, cedarwood, hemlock, balsam fir, spruce, and sweet birch—and describes operations of the Texarome distillation plant for extracting natural oils in Leakey, TX.

The Avoca facility in North Carolina, which formerly produced clary sage oil for flavoring tobacco products, now grows and manufactures essential oils for aromatherapy. For more information on aromatherapy, contact the Aromatherapy Association (21).

## The Herbal Tea Business

Many small-scale herb growers concentrate on developing their own retail herb businesses. One popular enterprise has been raising herbs to dry and formulate as herbal tea blends.

A resurgence of popularity of herbal teas can be traced to the 1960s. Several factors contributed to this trend. One was a rising interest in alternative medicine. Medicinal herb teas, technically known as infusions (see chart), were thought to promote health and were sometimes prescribed by naturopathic practitioners for specific complaints. There was also a rising concern for low-paid workers in foreign coffee and tea (*Camillia sinensis*) plantations. Often the ingredients for herbal remedies could be gathered at no cost but time for labor. Consequently, a whole generation has tended to associate herbal teas with health, social justice, and economic benefits. While today many of the ingredients in popular brands are raised overseas and fewer people have time or inclination to gather their own, the association of herbal teas with health benefits remains strong.

Herbal tea companies range from the very small to very large. Lee Sturdivant (3) profiles two tea companies—Linda Quintana's Wonderland Teas, Herbs and Spices of Bellingham, WA, and Celestial Seasonings, Inc., of Boulder, CO. Wonderland is an example of a small sole proprietorship. Quintana blends her own garden-raised herbs and sells teas by the packet

from her small shop. Celestial Seasonings is a very large, well-known manufacturer of nationally distributed herbal teas.

Forty-nine herbal tea manufacturers (most selling on the Internet), are listed in the August 1999 directory issue of *Natural Foods Merchandiser*. A list of some herbs sought for use in Celestial tea blends was published by Sturdivant and Blakley (3).

### Infusions\*

Use soft tissue plant parts: flowers, leaves, green stems, crushed seeds, powdered roots, powdered resins.

Use dried or fresh herbs. Use about 4 times as much of the fresh herb than the dried herb of the same species.

#### HOT INFUSIONS:

Typical dose of dried herb is one teaspoon to one cup of hot water (just off the boil). Let steep until drinkable or cold. Cover with lid if volatile oils are desired constituents. Use 4 teaspoons fresh herb in hot water.

#### COLD INFUSIONS:

Put herb in cold water and seal. Steep for 5 to 10 hours. If steeped for a longer period, tea should be processed in a refrigerator to keep bacterial and fungal growth minimized.

*\*Adapted from: Meuninck, Jim. 1996. Kitchen science herbal preparations. p. 130 in Arlene Kestner, Arthur Tucker, and Theresa Meiseler (ed.). Herbs '96: Proceedings of the International Herb Association.*

NFM has published articles (see Healthwell Exchange website) regarding implementation of best manufacturing practices for herbal tea manufacturers (for web address, see World Wide Web Resources, p. 4).

Quintana, who specializes in medicinal herb teas, suggests that not all medicinal herbs are good candidates for teas. She advocates that some types of herbs be taken as tinctures rather than in tea form because they do not blend in well.

(Many medicinal herbs are quite bitter.) The services of a food chemist or formulator may be needed in order for a start-up tea company to develop its own blends. Consultation with the food technology department at a state university is also advisable. More information on herbal tea blends is provided in R.A. Miller's *The Potential of Herbs as a Cash Crop* (1997 revised edition).

publications, Internet access, a flair for fashion, and an acute sense of what will sell in today's marketplace. Large acreage to grow raw materials is not required. The herbal crafts sector has more in common with other small businesses than with production agriculture.

Manufacturers of any food supplement product must carry adequate product liability and other types of insurance. Best manufacturing standards and normal accounting practices should be followed. For more information about setting up a business plan, help may be sought from the agricultural economics department or the school of business at a state university, volunteer groups such as the Senior Corps of Retired Executives (SCORE) which may be accessed at the website of the Small Business Administration (SBA) at <http://gopher.sbaonline.sba.gov/>, or trade associations and state and federal regulatory agencies. Many good examples of business plans can now be found through a World Wide Web search.

## The Herbal Crafts Business

Handcrafting decorative items that utilize herbs is a popular home herb business.

An interest in herbs and handicrafts, along with creative or artistic talent, sewing skills, writing skills, formulating, or organizing and networking skills—all these are potentially valuable in developing an herbal crafts business. In addition, however, craftspersons need ample budgets for travel and subscriptions to

### Grower Profile

La Paix Herb Farm of Alum Bridge, WV, exemplifies the small, diversified herb business. Herb grower Myra Bonhage-Hale has found a unique niche: her own line of herbal bodycare products, made from organically grown herbs.

La Paix Herb Farm includes 100 raised beds and nine display gardens, a labyrinth, product manufacturing facilities, and a retail shop. Regular tours and workshops are offered. Two interns work seasonally on the farm.

La Paix has a variety of ways and means for marketing its herbs: value-added herbal products sold at the farm store, West Virginia Store of Crafts, County Convention & Visitors' Bureau, slide shows, (800) operators, Bed & Breakfast Association speaker, National Dowsing Conference, national and local herb conferences, coupons for 10% off, brochure at area B&B's and attractions, Internet sites (such as [herbworld.com](http://herbworld.com)), trade publications, other journals, features in local papers, WV tourism promotions, two local retail co-ops. In addition, Myra takes the entire contents of her store to 20 festivals a year.

The owner is very active in the community. In addition to regional craft fairs and festivals, where she displays and takes orders for her products, she works with the West Virginia Environmental Coalition (currently planning "Sustainable Fair 2000"). Myra believes strongly in "relationship marketing," which builds long-term repeat business. In addition to shows, she also sells her products wholesale, retail, and by mail order, but spends significant time on the road each year.

Myra learned formulation of her unique line of products from books and through trial and error. She received significant help in the initial stages of marketing through the Herb Growing and Marketing Network (which publishes *Herbal Connections* and *The Herbal Green Pages* and has a website).

State regulators initially didn't understand about herbs. Then, in response to concerns raised by regional and national herb and organic agencies, the WV regulations were changed to be more friendly to cottage industries. Since then, the State Conference of Economic Opportunity, after being contacted by a vendor, has requested La Paix to develop a formula for a line of fragrance creams. Lack of time now precludes raising all the raw materials needed; most are sourced locally and regionally from other growers and commercial networks.

The overall mission of La Paix is "to let people know the advantages of organic gardening and living in an environmentally sound way."

Myra considers her enterprise a very satisfying way of life, which gives the opportunity to associate with like-minded people and a chance to continually learn.

## Marketing crafts.

Many larger libraries stock at least a few up-scale home decorating magazines, which provide a sense of what is on the cutting edge. What kinds of fabric are “in”? (This may affect the type of fabrics you choose for an herbal pillow.) What colors are in? Do trends favor pioneer midwestern décor? Or is there a noticeable Asian (or European, or Peruvian, or Balinese, etc.) influence? Craft items must be able to blend in.

**Developing a profitable business almost never depends on what the grower can most easily produce, what grows abundantly in that region, or what appeals to the grower personally or to neighbors, friends, and relatives.**

Discerning contemporary style trends may involve visits to a major market (Chicago or New York), where galleries, boutiques, tours, and trade shows will provide clues to future decorating trends. Catalogs are good sources of ideas (many are free). The crafter can thus get a perspective on becoming a small part of a very large industry.

*The Herbal Connection* publisher Maureen Rogers notes (22):

“Fashion” is about cutting-edge style in every classification. To remain successful, retailers must showcase the newest, best and most innovative merchandise available, and put it together in fresh ways. Customers must have a reason to come into the store. So much of the same kind of merchandise is for sale today that customers will go out of their way to see new, innovative, different products.... [A shopping] experience is offered by being in a specialty store that cannot be duplicated by any other format. With an increasing number of retail options available to people today, the specialty retailer can maximize the customer’s in-store experience and ensure that it is an enjoyable one. Specialty retailers who appreciate this competitive advantage will create a sense of community within an otherwise impersonal world.

The craftsperson who has an idea and has spotted an emerging trend that could make a unique herbal craft item a bestseller, must determine whether a fair return can actually be obtained on the item, considering the amount of time and materials required. If mass production is feasible or materials cheap and readily available, supply may soon exceed demand. Niche markets roll like waves. Barbara Brabec notes: “The minute you put a good idea out there, the public will copy it, so the secret is to come up with new ideas every year.... As soon as you have a new design or product, get it out there and saturate your market area, all the while dreaming up something new, or a new twist on the old” (23). Only by constant creativity and innovation can a craftsperson stay ahead.

## **Dyeplants**

**Dyes from plants have been replaced in the mass market by aniline (coal tar) dyes and by natural fibers that do not require dyeing. Home weavers use small amounts of plant-based dye materials, but it is primarily a hobby pursuit.**

## Key resources for herbal crafts

Very recently the Internet has become not only a major source of information, but also a marketing tool. Even the smallest business can have an Internet homepage, accessible worldwide through powerful search engines. However, there is also rapid turnover among such businesses and websites. A recent search on "herbal dream pillows" turned up several sites. Jim Long’s *Profits from Dream Pillows* (1997) (24) provides complete details on how to make this craft item from mugwort (*Artemisia vulgaris*).

It is not surprising that an overwhelming number of small herbal craftspeople advertising on the Internet are located in New England, with its long history of cottage industry. The best way to find sites for a particular kind of craft is by a search engine, as specific addresses change

frequently. *The Herbal Connection* recently published a series of articles about selling on the Internet.

### Sample Internet Crafts Sites

Adirondack Basket Case

<http://www.adirondackbaskets.com/>

Crafts by Pat

<http://home.ici.net/~pfoley/pfoley.html>

Dream & Sleep Pillows

[http://www.flash.net/~bobkatpr/html/herbal\\_pillows.html](http://www.flash.net/~bobkatpr/html/herbal_pillows.html)

Handmade by Quality Artisans

<http://www.flash.net/~bobkatpr/index.shtml>

The Herb Growing and Marketing Network is a complex of related herb information businesses. Publications include the quarterly trade magazine *The Herbal Connection* (covering all aspects of starting and operating a small-scale herb business, with emphasis on a crafts business), a biennial directory of small herb businesses (the overwhelming majority are crafts businesses), and two websites. The Network sponsors a "Winter Getaway Herb Conference" annually. Classified or display advertising may be placed either in *The Herbal Connection* or on the website.

*The Business of Herbs*, formerly published by Northwind Farm, since January 2000 has been published by the Herb Growing and Marketing Network. Northwind (25) still publishes the *Changewinds Letter*, which forecasts trends for small businesses, as well as books about developing an alternative enterprise and titles related to herb crafts businesses. Ellen Platt's *How to Profit from Flower and Plant Crafts* and other Northwinds titles can be requested through InterLibrary Loan.

Two other useful periodicals for the small grower are *Growing for Market* (26) and *HortIdeas* (27).

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*This book may be ordered from:*  
*San Juan Naturals*  
*P.O. Box 642P*  
*Friday Harbor, WA 98250.*  
*\$24.95 plus \$2.00 handling. With a credit card, it may also be ordered by phone (800) 770-9070, FAX (206)-378-2548, or through the Internet at [www.bootstraps.com](http://www.bootstraps.com).*
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P.O. Box 98  
East Barre, VT 05649  
(802) 496-7053  
(802) 496-9988 FAX  
e-mail: [info@plantsavers.org](mailto:info@plantsavers.org)  
<http://www.plantsavers.org>
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- 10) Horizon Herbs  
P.O. Box 69  
Williams, OR 97544  
(541) 846-6704  
(541) 846-6233 FAX  
e-mail: herbseed@chatlink.com  
*The entire series of booklets may be ordered for \$26.50 (plus \$3.50 s/h). A copy of the Horizon Herbs 1998 Growing Guide and Catalog may also be requested.*
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*Steven Foster may be contacted at:  
Steven Foster Group, Inc.  
P.O. Box 1343  
Fayetteville, AR 72702  
(501) 521-5887 (501) 521-6369  
e-mail: photography@stevenfoster.com  
http://www.stevenfoster.com*
- 12) American Herbal Products Association (AHPA)  
8484 Georgia Ave., Ste. 370  
Silver Spring, MD 20910  
(301) 588-1171  
(301) 588-1174 FAX  
http://www.ahpa.org  
(includes e-mail)
- 13) New Hope Natural Media  
1301 Spruce St.  
Boulder, CO 80302-4832  
(303) 939-8440  
(303) 939-9886 FAX  
(303) 938-1634 FAX (Natural Foods Merchandiser)  
e-mail: sales@newhope.com  
http://www.newhope.com  
*New Hope Natural Media publishes  
Natural Foods Merchandiser  
Delicious! Magazine  
Nutrition Science News  
New Product Review  
Nutrition Review  
Healthcraze  
Sponsors yearly natural products trade shows:  
Expo East  
Expo West*
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- 15) Herb Growing and Marketing Network  
P.O. Box 245  
Silver Spring, PA 17575  
(717) 393-3295  
Contact: Maureen Rogers  
http://www.herbnet.com  
*Publishes The Herbal Green Pages, listing hundreds of small growers with herbs to sell. Also publishes The Herbal Connection.*
- 16) Great Northern Botanicals Ass'n (GNBA)  
P.O. Box 362  
Helena, MT 59624  
(406) 846-3652  
e-mail: scotsman@cyberport.net
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P.O. Box 3243  
South Pasadena, CA 91031  
*For a subscription to newsletter Common Scents, contact the Association at: P.O. Box 1222, Fair Oaks, CA 95628.*
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Order for \$16.95 from:  
Prima Publishing  
P.O. Box 1260BK  
3875 Atherton Road  
Rocklin, CA 95677  
(916) 682-4400; (916) 632-4409 FAX  
http://www.primapublishing.com*

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*Order from:*

Long Creek Herbs

Route 4, Box 730

Oak Grove, AR 72660

(417) 779-5450 (ph./FAX)

[Book is softcover, \$9.95. VISA/MC.]

- 25) For more information on Northwind Farm publications, contact:

Northwind Publications

439 Ponderosa Way

Jemez Springs, NM 87025-8036

(505) 829-3448

(505) 829-3449 FAX

e-mail: oliver@jemez.com

The electronic version of Herb Overview is located at:  
<http://www.attra.org/attra-pub/herb.html>

- 26) Growing for Market

Fairplain Publications

P.O. Box 3747

Lawrence, KS 66046

(913) 841-2559

<http://www.growingformarket.com>

Monthly, \$26/yr. Edited by Lynn Byczynski.

See back issues plus follow-ups on website.

- 27) Hortideas

Route 1, Box 302

Gravel Switch, KY 40328

Monthly, \$15 per year.

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By Katherine Adam  
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