Growing Herbs for Home Use

ardeners usually like to grow many types of plants, and some gardeners are particularly attracted to herbs. The simple definition of "herb" is a plant, but usually implies one that might be used for cooking (culinary herb) or medicine (medicinal herb). This publication describes how to grow and use some basic herbs. A reading list is included in the last section to encourage you to find out more. In addition to reading, consulting with practicing herbalists or forming a study group are good ways to learn more about herbal use.

What is an herbalist?

An herbalist is someone who respects the many gifts plants have to offer. Home herbalists use herbs as food and medicine for themselves or their families in their daily lives. Clinical herbalists usually have some formal training, through coursework or apprenticeships, before meeting with clients. Some countries do not restrict the practice of herbal medicine, while others have clear regulations.

In the United States, some medical doctors (M.D.s) have varying amounts of training in herbs and other forms of alternative medicine. In some states, naturopaths (N.D.s) are licensed to practice medicine, including herbal therapies. Naturopaths receive training similar to medical doctors, but with an emphasis on nutrition and more training in alternative therapies. In Kansas, naturopaths are allowed to practice in conjunction with an M.D. in a clinical setting and are registered, but not licensed by the Board of Healing Arts. Non-M.D. or N.D. herbalists in the United States are not allowed to use the words "diagnose," "prescribe," "cure," or "patient," but they are allowed to see

clients and to educate. They generally take a client-centered approach to healing, and may establish a health care agreement to clarify the role of the healer (the client) and the helper (the herbalist).

Formal training is not necessary, but home herbalists must use common sense at all times. For example, a home herbalist should not assume that a medicine that comes from a plant is safe. Some of the most powerful drugs used today are extracted from plants. An example is digitalis, a cardiac stimulant prepared from foxglove. On the other hand, one should also not assume that because a plant is called a medicinal herb, it is automatically dangerous. Onion, for example, is one of the best herbs for fighting bacterial infections, and it is contained in foods we eat everyday. Some plants, such as foxglove, should be avoided in home use. Others are already used as food or tea, and still others should be used with caution until you become familiar with the plant. For a few, "the dose makes the poison" — even common table salt can be toxic if overdone.

The best advice for the home herbalist is to know as much as possible about the plant — its exact identity, which part to use and how to use it. Some plants, such as spearmint, are easy to identify by sight or smell. Others can be confused with toxic relatives. Growing the plant yourself from a known seed or plant source is best for correct identification. Another good way to learn the plants is from another experienced gardener, herb farmer or botanist. Just as a vegetable gardener knows to eat the roots and not the tops of a potato plant, which are highly toxic, a home herbalist, learning one plant at a time, will soon know which plants are safe and how to use them.

This publication describes some of the safest species for home use, how to grow them and how to use them.

Food as Medicine

Some common foods with medicinal value that can be grown at home include onions, garlic, adzuki beans and wild greens. In addition to being antimicrobial, **onions** (*Allium cepa*), have been approved for use by the

German Commission E for treatment of appetite loss, arteriosclerosis, fevers and colds, coughs, bronchitis, hypertension, tendency to infection and the common cold. The German Commission E is a council that reviews herbs for safety and efficacy, and its recommendations are used by physicians throughout Europe.

Garlic (Allium sativum) has been approved to treat hypertension and to lower levels of cholesterol and lipids. It is also used for prevention of agerelated vascular changes and arteriosclerosis. Adzuki beans (Vigna angularis) are widely used in Chinese medicine for general body strengthening. Adzuki beans are small, nuttytasting, dark-red beans that are originally from Asia. Beans, in general, can be used to treat diabetes, because the soluble fiber content reduces the rise in blood sugar after meals.

Some foods from tropical climates, such as pineapple and ginger, are also used as medicine. **Pineapple** (Ananas comosus) has been approved by Commission E to treat wounds and burns because it contains an enzyme that promotes wound healing. **Ginger** (Zingiber officinale) is used to treat a variety of gastrointestinal complaints, including motion sickness. It increases the tone and peristalsis (normal muscular contractions) of the intestine, and stimulates the immune system.

Wild greens, such as the common dandelion, plantain, shepherd's purse and other plants mistakenly called weeds, also have powerful medicinal properties. Uses approved by the Commission E for **dandelion** (*Taraxacum officinale*) include dyspepsia (upset stomach), infections of the urinary tract, and liver and gallbladder problems. **Plantain** (*Plantago lanceolata*) has been approved for use for the common cold, cough, bronchitis, fevers, colds, inflammation of the mouth and pharynx, and inflamma-

tion of the skin. Rubbing a plantain leaf on an insect bite, burn or scrape will bring quick relief. These greens can improve health by using them in salad or tea, because they have mineral and vitamin content several times higher than that of lettuce.

Purslane (Portulaca oleracea) is extremely nutritious and contains the now popular omega-3 fatty acids, magnesium, potassium and iron.

Purslane can help many conditions. (See Table 1, page 4 for nutritional information).

Herbs can help fulfill the basic USDA dietary recommendation of eating more than five fruits and vegetables a day. The American Institute for Cancer Research has published studies proving that people who follow this simple guideline can significantly reduce their risk of cancer (www.aicr.org).

One of the principles of herbalists from widely differing backgrounds (Chinese medicine, Indian or Ayurvedic medicine, as well as western herbalism) is that herbs are used to promote health, rather than to cure disease. Helping the body to help itself, to prevent disease or overcome stress that causes disease, is a common thread in many books on herbal medicine.

Tea, Anyone?

A good way to get started as a home herbalist is by making tea, which is also known as an infusion. Some herbalists distinguish two types of tea — beverage and medicinal. A beverage tea is made using approximately 1 teaspoon of dry herb (two or three times that for fresh herb) for each cup of boiling water, and steeping for 5 minutes. Medicinal-strength tea differs from beverage tea in the choice of herbs, the ratio of herb to water and the length of time infused. Many medicinal teas are called infusions and are made from leaves. flowers, seeds or roots. The ratio of

herb varies from 1 teaspoon to ½ ounce to 1 cup of water, and the infusion is steeped for approximately 20 minutes in a closed quart or other jar. A decoction is a much stronger tea made by boiling the herb, usually stems, roots or bark.

An excellent way to get started with beverage teas is to try spearmint, peppermint or any other plant in the mint family, including catnip. These can be used fresh or dry, and make a stimulating drink with some medicinal properties. **Mints** (*Mentha spp.*), though sometimes hard to start from seed, are easily propagated by root divisions. Once you get a patch

established, it might be hard to control, so put it in a border area of the garden where it can roam. Mints are often used for digestive disorders or as a remedy for flatulence. Mints are good in salad, and may be mixed with a pot of beans to counteract the flatulenceproducing properties. **Peppermint** (Mentha piperita) has been approved by the Commission E for

liver, gallbladder and stomach complaints. These and other leafy plants can be harvested throughout the growing season, but are best harvested before flowering at their leafiest stage, especially if the goal is to dry a supply for winter use. They like full sun, but can survive in a shady spot. They seem to handle Kansas heat and droughts well. Catnip (Nepeta cataria), which smells minty and can be used like mint, is in a different plant family. It often behaves like a biennial, but will re-seed and keep growing indefinitely once it is started.

Another popular beverage tea with medicinal properties is chamomile. German chamomile is an often-used (Matricaria recutita) annual that is easily started from seed early in the spring or fall. The harvested portion is the blooming flower. The tea has a naturally sweet, fragrant flavor, and is used internally for inflammatory diseases of the gastrointestinal tract and irritation of mucous membranes and upper respiratory tract. Externally, chamomile is used for skin and mucous membrane inflammations and gingivitis. English chamomile (Chamaemelum nobile) is more often used as an oil, but decoctions have also been used to treat gastrointestinal disturbances. However, English chamomile has not been studied as thoroughly as German chamomile and should be avoided during pregnancy. The only caution for German chamomile is for people with known allergies to members of the Compositae or daisy family, including feverfew, tansy, artemesia or yarrow.

Monarda, sometimes called bee balm, is a nice beverage tea, and is the distinctive flavor in Earl Grey tea sold in stores. In field trials, wild **bergamot** (Monarda fitulosa) grew better, and survived the winter in unprotected areas better than Monarda didyma "Panorama Red Shades," which is selected for flower color rather than as a tea plant. Another interesting beverage tea is varrow (Achilea millefolium). Many colors are available for garden yarrows, a hardy perennial. The leaves can be plucked for tea at any stage. Flowers are sometimes used and are available in herb shops. Wild varrow, with ferny leaves and small white flowers, is common in Kansas. Externally, varrow has been used to stop bleeding. As a tea, it stimulates the flow of bile and is approved by the Commission E for loss of appetite, stomach complaints, liver and gallbladder ailments. Again, anyone

with an allergy to composites should avoid yarrow. Common garden **sage** (*Salvia officinalis*) also makes a lively tea, especially when used fresh, and has been approved by Commission E for loss of appetite, inflammation of the mouth and pharynx, and for excessive perspiration. Sage can be used as a rinse and gargle for light injuries, skin inflammation, bleeding gums, laryngitis, pharyngitis and for firming the gums.

Both lemon balm and lemon verbena make excellent beverage teas. **Lemon balm** (*Melissa officinalis*) is a perennial, hardy in zones 5-9, and is used to treat nervousness and insomnia. **Lemon verbena** (*Aloysia triphylla*) is a shrub-like perennial that is propagated by runners or cuttings. It is only hardy in zones 8-10. In Kansas it should be brought in for the winter by potting or taking cuttings. It is sometimes used to treat digestive disorders, agitation, and insomnia, and as a flavoring in other medicinal teas.

Red clover blossoms and red raspberry leaves are often included in teas for women. **Red clover** (*Trifolium pratense*) is a perennial often used as a forage or cover crop by farmers, but tea made from flowers is used for



coughs and respiratory conditions. Externally, it is used in the treatment of chronic skin conditions such as psoriasis and eczema. Red clover also has possible estro-

genic activity. **Red raspberry** leaves (*Rubus idaeus*) have been used for disorders of the gastrointestinal tract, respiratory tract, cardiovascular system, mouth and throat. In folk medicine, the raspberry is said to strengthen the uterus and facilitate

childbirth. Red raspberries are rich in vitamins and minerals and can be



taken for indigestion and rheumatism.

For those willing to venture into the woods, gloves in hand, the common

stinging nettle (*Urtica dioica*) is a hardy perennial with many medicinal properties. It increases the flow and volume of urine, and has been approved for use against infections of the urinary tract, kidney and bladder stones. It is also used as a supportive therapy for rheumatic ailments.

Externally, nettles have been used as a hair and scalp remedy against oily hair and dandruff. The stinging nettle root is used for prostate complaints and irritable bladder. Nettle tea and the cooked herb also contain many vitamins and minerals and have been used as a spring tonic throughout history. Though the hairs on the plant contain formic acid, this effect is neutralized once the plant is either dried or cooked, so gloves are unnecessary after that point. The leaves are harvested in the spring, and the roots in the fall. In yield trials, nettles do well in full sun, though in the wild they are often found in wooded, slightly wet areas.

Two species of **licorice** are used medicinally and also as flavoring for beverages, candy and even tobacco products. The most common, *Glycyrrhiza glabra*, is from Europe and parts of Asia, and the other is *Glycyrrhiza uralensis*, or Chinese licorice. Licorice should not be taken by people with heart conditions, high blood pressure or with a tendency to retain water. This includes licorice candy, though in the United States, anise seed is often used as the licorice flavor, compared

to Europe, where the original licorice is still used. Both types of licorice lend a sweet flavor to tea. In Chinese medicine, the Chinese licorice is one of the most common ingredients in prescribed medicinal tea, and is associated with longevity.

Medicinally, licorice has many uses, including treatment of cough, bronchitis and gastritis. It is a slightly woody perennial, listed for zones 7-10, but in field trials it demonstrated excellent winter survival. Plant licorice where it won't interfere with other plantings because it can spread several feet from it original location through underground roots. There is a native licorice in North America, Glycyrrhiza lepidota, similar in appearance to G. glabra. It was widely used by Native Americans for ailments including coughs, sore throats, upset stomachs and earaches (Kindscher 1992). The tea was also used to reduce fever in children, and the root was chewed to relieve toothache. This species is not listed in the Physicians Desk Reference for Herbal Medicines, so it has not been researched by the Commission E or western doctors.

Herbs for the Cold and Flu Season

Several herb teas to help you get through the cold and flu season can be made at home. Many of the plants described as beverage teas have some helpful medicinal properties, especially for sore throats and coughs. In addition to tea, it is also helpful to know how to make a tincture. A tincture is the medicinal properties of an herb extracted in alcohol that is sometimes diluted with water. The advantage of a tincture is that even well-dried herbs have a shelf life of approximately a year, while a tincture can last two or three years. Tinctures may also be more effective at extracting the non-aqueous active ingredients from an herb, while a tea primarily extracts compounds that are water soluble. Various recipes in herb books give the proper ratio of alcohol and water, and of dried or fresh herb to liquid. Some herbalists use vodka, while others use grain alcohol, which is a 180-proof (95 percent) alcohol. Of course, use only food-grade products for tinctures. Food-grade glycerin or cider vinegar can also be used to make tinctures for children. The dosage recommendation for a tincture is 10 to 20 drops in a glass of water or under the tongue, so a little bit goes a long way.

The best cold and flu fighters are the herbs that boost the immune system, such as **elderberry** (Sambucus canadensis) taken either as a wine or syrup, or *Echinacea*, which is also known as **coneflower.** Three species of Echinacea are often used, two of which are native to Kansas. Echinacea angustifolia, is found in western Kansas, and E. pallida in eastern Kansas. The third type, E. pupurea, is found throughout Kansas in flower gardens due to its large, colorful blossoms. Though the active ingredients in the plant are still being debated by biochemists, medical researchers agree that the plant does stimulate the immune system and the body's ability to fight disease. The plant also exerts anti-inflammatory, bactericidal and wound-healing actions. The Commission E has approved the use of Echinacea for the common cold, cough, bronchitis, fevers, infections of the urinary tract, inflammation of the mouth and pharynx, tendency to infection, wounds and burns. The tops of E. purpurea have some activity, but most of the active compounds are in the flower buds and roots, especially if harvested in the fall. Echinacea can be made into tea, which is somewhat helpful, but the strongest form is either expressed juice (available in Europe) or tincture, which you can make yourself. Echinacea and other

herbs are available commercially in pill form, but most herbalists don't recommend these because the oxidation of the ground plant material used to make the pill quickly destroys its effectiveness. Also, some compounds may never make it past the gastric juices in the digestive system.

Echinacea tincture is easy to make at home. The recommended dosage of this and most other herbs is more of an art than a science. Refined recipes can be found in several herb books, but for the beginner, this recipe will work.

- 1. Grow your favorite species of *Echinacea*.
- 2. Wait until the fall of the first, second or third year and harvest the roots. Dig and wash like carrots, but don't peel. Replant crown buds for next year's crop.
- 3. Chop the raw roots the way you chop a carrot.
- 4. Put the chopped roots in a jar. Use a pint jar if there are a few roots, a quart jar if there are a lot.
- 5. Cover with 180-proof food grade alcohol and secure with a tight-fitting lid.
- 6. Put the jar in a cupboard with a note on the door to shake daily.
- 7. Shake the jar daily by gently turning up and down. The shaking does not need to be vigorous.
- 8. In about a week, a whitish powder will appear in the liquid. The color of the roots may fade slightly.
- 9. In four to six weeks, the extraction should be complete. Strain the roots with a cloth or towel, and put the liquid in a brown glass jar with a lid.
- 10. Put a small amount in a jar(1 fluid ounce bottles are appropriate) with a dropper. Dosage recommendations range from10 to 20 drops in a glass of water

or under the tongue, so this tincture may last several years or supply enough to share with friends.

Your body may adapt to the tincture, so take it for two weeks, then stop taking it for two weeks. Do this in cycles for continuous protection. Some people only take it during times of stress when they might get a cold. Echinacea seems to be less effective if taken after you get the cold, but it might work if taken at the first sign, such as a scratchy throat. Echinacea is not recommended for people allergic to plants in the daisy family or with autoimmune diseases because this could make the condition worse. Even someone with an allergy to ragweed might want to be cautious, to evaluate the body's response to Echinacea.

Which Echinacea should you grow? The species with the best reputation is E. angustifolia, which is referred to in the herb business as "Kansas Snake Root." It has a positive reputation extending even to Europe, where other Echinacea species are widely available. This species is difficult to start from seed because about three months of cold, wet stratification are necessary for a 50 to 60 percent germination. In yield trials, the transplanted E. angustifolia did not have great survival in the field, and only about 55 to 65 percent of the plants survived the first year. Better survival and yield was obtained from E. pallida, although the seed for this species also requires stratification. The E. pupurea germinates without stratification and first-year survival in the field was 80 to 90 percent. However, in years with high leafhopper populations, the disease aster yellows, which is transmitted by the leafhopper, can weaken, disfigure and kill the *E. purpurea*. In a field setting with plants destined for market, this could be devastating. In a garden situation, plants re-seed easily, and

replacement plants will often come up after the parent plant has been harvested or died. A white version of *E. pupurea* called "White Swan" is available commercially, but I haven't seen any studies documenting whether this variety has medicinal properties.

Other herbs to consider for the cold and flu season are mullein and marsh mallow. They are common in the wild in parts of Kansas, but are often overlooked as medicinal plants. Mullein (Verbascum densiflorum) is a biennial, forming a rosette in the first year and shooting up a flower stalk in the second. Though it grows on the roadside, it is safer to grow your own or to harvest only from areas that have not been sprayed with pesticides and are relatively free of dust and exhaust. Mullein can be started from seed or transplants, but the seed is so tiny you might wonder if it is seed at all. The leaves of mullein are harvested young, and contain a high percentage of mucilage (up to 3 percent). It is recommended to alleviate irritation and has an expectorant effect, due to its mucin and saponin content. Either fresh or dried leaves can be made into a tea or infusion, with a mild, leafy flavor. Olive oil can be added to fresh mullein flowers to make ear drops.

Marsh mallow (Althaea officinalis) is related to hollyhock and other garden plants and good for cough and bronchitis. It is used for irritation of the oral and pharyngeal mucosa and associated dry cough. The leaves or roots may be made into a tea. To make a "cold tea," put 10 to 15 grams (1 to 2 teaspoons) of dried herb per cup of cold water and let stand for 90 minutes. Then warm the liquid to drink.

Don't forget the onion and garlic during the cold and flu season, or any other time of the year. There aren't any dosage recommendations for onion and garlic – you can probably

consume as much you can tolerate. There is some evidence that fresh onion and garlic is more effective than cooked. Finally, remember keep eating fruits and vegetables to stay healthy at any time of year.

Summary

The herbs and preparations described are only a tiny fraction of the knowledge about using plants as medicines. There are an estimated 70,000 species of plants used medicinally worldwide, and in some regions, 25 percent of plant species have some medicinal use. Plants available to you include plants native to the Great Plains, intentionally introduced European, Asian, and African species, and unintentionally introduced but valuable species sometimes called weeds. As more herbal traditions merge, you might find yourself using a Chinese remedy for a headache, or a Native American plant for your stomach. More is known every year as medical research slowly begins to catch up with the empirical knowledge base of traditional healers. Plant chemists have identified many plant compounds including more than 25,000 terpenes, 12,000 alkaloids and 10,000 phenolics. Though active ingredient identification is sometimes elusive due to interaction effects, the overall effectiveness is understood more every day. Chris Kilham of Medicine Hunter, Inc. estimates that 85 percent of the world's population, or about 5.1 billion people, turn to plants as primary medicines.

What is the best way to learn about these 70,000 plants? The best advice from practicing herbalists is simply "one plant at a time." This publication is designed to help you get started on a few, relatively safe and easy-to-use herbs that grow well in Kansas gardens. Books, Web sites and other resources are listed at the end to help guide you toward more information. This publication has

Table 1. Nutrients in "Weeds" vs. "Crops" per 100 gram fresh weight (about 1/2 to1 cup of material)

	Lettuce			Weeds?				Fruit/Veg	
	Iceberg	Leaf	Romaine	Dandelion	Pigweed	Lambsquarter	Purslane	Tomato	Banana
Water (%)	0.96	0.94	0.95	0.86	0.92	0.84	0.94	0.94	0.74
Fiber - (grams)	1.4	1.9	1.7	3.5	_	4.0	_	1.1	2.4
Calcium (mg)	19	68	36	187	215	309	65	5	6
Iron (mg)	0.5	1.4	1.1	3.1	2.3	1.2	2.0	0.5	0.3
Potassium (mg)	158	264	290	397	611	452	494	222	396
Vit C (mg)	4	18	24	35	43	80	21	26	9
Vit A (IU)	330	1,900	2,600	14,000	2,917	11,600	1,320	623	81
Vit. E (mg)	0.28	0.44	0.44	2.5	_	_	_	0.38	0.27

(See USDA data base at http://www.nal.usda.gov/fnic/cgi-bin/nut_search.pl.)

discussed teas and touched on the topic of tinctures. Other publications in the reference list also cover infused oils, essential oils, skin creams and other topics. Read these books on your own, or form a study group to read and discuss the material.

Some people have a goal to learn one herb per year and to get to know that plant very well. Experienced gardeners may be able to speed up that timeline, but growing, gathering and using the plants is the best way to truly know them and realize the benefits they bring to the home herbalist.

Disclaimer:

Please consult reference texts and your health care practitioner(s) before taking herb products to treat a medical condition. The intent of this publication is to provide herbal information to gardeners, not medical advice.

For more information:

American Botanical Council, non-profit educational organization, publishes the quarterly trade magazine "Herbalgram," see Web site at www.herbalgram.org, or contact their headquarters: P.O. Box 144345,

Austin, TX, 78714-4345. Phone 512- 926-4900. Fax 512-926-2345.

ATTRA, Appropriate Technology
Transfer for Rural Areas. P.O. Box
3657, Fayetteville, AR 72702. Phone
1-800-346-9140 or on the Web at
http://www.attra.org/attra-pub/
herblist.html where you'll find many
fact sheets on herbs in general, and
also specific popular herbs. Many
other fact sheets of interest to
farmers looking for alternative
crops.

Kansas State University, see Web site www. oznet.ksu.edu, especially publication MF-2532, Economic Issues with Echinacea. Also, www.oznet.ksu.edu/kcsaac/ for hot links to other herb Web sites.

North Carolina, see Web site www.ces.ncsu.edu/depts/hort/hil/. Check out the specialty crop fact sheets for information on both culinary and medicinal herbs.

Seed Sources:

Horizon Herbs, LLC, P.O. Box 69, Williams, OR 97544. Phone 541-846-6704, fax 541-846-6233, hhcustserv@HorizonHerbs.com, Web site at www. chatlink.com/~herbseed/. Seeds grown by well-

known herbalist/writer Richo Cech and his family.

Johnny's Seeds, See Web site at www.Johnnyseeds.com, or contact at 184 Foss Hill Rd, Albion, Maine, 04901. Phone 207-437-4301. Sells vegetable seed to gardeners and professional growers, good selection of culinary and medicinal herb seed, including some organically grown.

Prairie Moon Nursery, Route 3, Box 1633, Winona, MN 55987-9515. Phone 507- 452-1362, Fax 507-454-5238, www.prairiemoonnursery.com, pmnrsy@luminet.net. Large selection of seeds for prairie plantings and restoration, including medicinal plants from the prairie.

Richters Herbs, see

www. Richters.com, or phone 1-905-640-6677, fax 1-905-640-6641. Located in Goodwood, Ontario, Canada, the company was founded in 1970 to sell bedding plants and herbs. Good selection and fun catalog.

Seedman.Com, Jim Johnson, Seedman, 3421 Bream St., Gautier, MS 39553, phone 800-336-2064, fax 228-497-5488, support@seedman.com, www.seedman.com/medicine.html. Carries large and varied selection of seeds from around the world.

Associations:

Great Plains Herb Growers Association for those considering herb production on a commercial scale. One-year membership, newsletter \$25. Send to Rhonda Janke, 2021 Throckmorton, KSU, Manhattan, KS 66506. Can be added to mailing list to receive herb workshop mailings for free. Contact Christy Dipman, 785-532-6173, e-mail cdipman@oznet.ksu.edu.

The Herb Growing & Marketing Network, P.O. Box 245, Silver Spring, PA 17575, phone 717-393-3295, fax 717-393-9261, www.herbnet.com and herbworld.com, HERBWORLD@aol.com. Nonmembers can learn a lot from visiting this Web site and reading their newsletters. Member benefits include Web site design and hosting, listing your herb business in the Herbal Green Pages Online, and discounted rates for product liability insurance. Membership prices start at \$40/year and higher.

Books-General:

The Complete Book of Herbs – A
Practical Guide to Growing and
Using Herbs, Lesley Bremness. 1988.
Penguin books. N.Y. Lots of information about growing herbs.

Complete Illustrated guide to the Holistic Herbal, David Hoffmann. 1996. Harper Collins Publishers, London. Nice photographs, good listing of herbs.

The Complete Medicinal Herbal, Penelope Ody. 1993. Dorling Kindersley, N.Y. Great photos, some history, nice reference tables in second section.

The Green Pharmacy, by James A. Duke. 1997. St. Martin's Paperbacks. St. Martin's Press, New York, N.Y. This affordable book offers scientific

insight and practical herbal remedies for everything from baldness to bad breath. Dr. James Duke was a career research scientist for the USDA in Beltsville, Md.

The German Commission E Monographs, translated by Mark Blumenthal, available through American Botanical Council. Recommendations of a scientific council, based on published research, for herbal supplements that may be prescribed by physicians in Germany.

Growing 101 Herbs That Heal, Tammi Hartung. 2000. Storey Books, Schoolhouse Road, Pownal, Vt. Good section on germination and growing requirements for 100+ herbs.

Handmade Medicines - Simple Recipes for Herbal Health, Christopher Hobbs. 1998. Interweave Press, Inc. Loveland, Colo.

Herbs for First Aid - Simple Home Remedies for Minor Ailments and Injuries, Penelope Ody. 1997. Keats Publishing, Los Angeles.

The Honest Herbal, Varro E. Tyler. 1993 (third edition). Haworth Press, Inc. New York. Provides some information about using herbs, some well-researched, and some anecdotal. This book is written by a skeptic, but is fairly balanced.

Medicinal Wild Plants of the Prairie, an Ethnobotanical Guide, Kelly Kindscher. 1992. University of Kansas Press, Lawrence, Kan.

Peterson Field Guides: Eastern/ Central Medicinal Plants and Herbs, Steven Foster and James A. Duke. Second Edition. 2000. Houghton Mifflin Company, Boston.

Physician's Desk Reference for Herbal Medicines. 2000. Second Edition, Medical Economics Company, Montvale, N.J. The most thorough reference I've found yet for describing herbs, supplements derived from herbs, summarizing the known efficacy, and warning about side effects and drug/herb interactions.

The Village Herbalist, Nancy and Michael Phillips. 2000. Chelsea Green Publisher, see www.HerbsAndApples.com for more information. A great book. Discusses the "how" of herbalism at the home and village scale, as well as providing some information about the plants. The focus of this book is people, however.

Books- for Large-Scale Growers:

Herb and Spice Production Manual, 1999, Connie Kehler. Produced by the Saskatchewan Herb and Spice Association, printed by Print It Centre, Regina, Sask. (Available through Richters Catalog.)

Grower's Crop Monographs. Frontier Organic Research Farm, Norway, Iowa. (Available through Frontier's Web site.)

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Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

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