



THE CHINESE MEDICINAL HERB FARM

A Cultivator's Guide
to Small-Scale Organic
Herb Production

PEG
SCHAFER

*Foreword by
Steven Foster*





PART ONE

CULTIVATING TO CONSERVE

*Connecting with Quality
Asian Botanicals*





In this historic image Ma Kou is carrying recently harvested medicinal herbs. The illustration, by Father Henri Dore, is from the late nineteenth century. Photo from Bridgeman Art Library/ Private Collection/Archives Charmet CHT182703.

CHAPTER ONE

Farming to Be Part of the Solution

A holistic lifestyle has always been important to me, beginning with my childhood gardening experiences. Of all my siblings—there were five of us, and I was fourth from the oldest—I was the only one who took to gardening. In our suburban lot my father always had a vegetable garden and a huge compost pile (he was serious about that). I did the summertime watering, and I actually liked weeding and tending the tomatoes, peppers, zucchini, strawberries, and other crops that filled my father's garden beds. Then one day I saw him spraying our strawberries; from then on, we had two vegetable gardens. That childhood vegetable patch was the first of many gardens I have had the honor of tending.

My journey from raising vegetables to becoming a Chinese medicinal herb farmer started by accident—a car accident. I was not seriously injured, but I was pretty banged up. My friend Debra encouraged me to try acupuncture. After having some positive experiences with acupuncture, I started checking out Chinese medicinal herbs to see what they had to offer. Then I hit a conundrum. The herbs were helping me effectively deal with some long-term physical issues, but I had concerns about both the quality and what else (besides herbs) was in the powders I was consuming. When I shared my concerns with my wise tortoiselike practitioner, Bill Fannin, he kept inquiring why I didn't just grow my own. Always low key, and with a little *hmmm*, Bill would hand me a plant or two, saying that they were starts from his garden—and no, he didn't want any money for them.

At the time, I was a landless grower working on other people's farms, but my husband and I recently had purchased a little one-acre plot. And with a little gentle tortoise-nudging and *hmmm*, I was off growing

Chinese herbs on our first little farm. I even planted a Chinese medicinal herb garden in the Fannins' backyard—which apparently never had a garden before.

Of course, the one-acre plot didn't become a farm overnight. It took two years of exploring the concept of growing Chinese botanical plants for me to feel confident that this kind of farming was doable and would be a viable market niche. I started by growing herb transplants for sale and soon found that there was a lot of interest. As I diversified into field cultivation, even more people became intrigued—just as I was figuring out that this was a much larger project and with even more potential than I initially imagined. Eventually we moved to a larger farm to further explore the potential of growing Asian medicinal herbs domestically. There are plenty of compelling reasons why growing these herbs is a good idea, not least of which is that small-scale ecological farming of herbs is a critical aspect of ensuring a high-quality supply and preventing continued loss of these herbs from their wild native regions.

EVOLVING HERBAL TRADITIONS

Traditional Chinese Medicine (TCM), with its extensive herbal focus, is more than three thousand years old; some traditions—like Ayurveda, the herbal tradition of India—are even older. In both these herbal traditions the roots, fruits, bark, leaves, flowers, seeds, and stems of specific botanicals are all utilized to address wide-ranging health problems.

Drawing on the accumulated wisdom of these and other ancient time-tested systems of medicine, Western herbal practitioners are beginning to utilize herbs from around the world. You may

NOTES FROM THE CHINESE MEDICINAL HERB FARM

BY DANIEL MCQUILLEN

Growing Herbs as a Healing Endeavor

On a sunny day in late August, the Chinese Medicinal Herb Farm is a picture of calm. Here on a ten-acre plot of land in Petaluma, California, rows of lush dān shēn are just going to seed while green fragrant shrubs scent the wind as it blows toward Sonoma Valley. Chinese, Ayurvedic, and other Asian medicinal herbs are growing in loosely cultivated rows and flourishing under the strong sun. The blue sky, soaring hawks, and golden hills mix into a heady brew that makes visitors reconsider their occupation.

In the midst of this bucolic scene, farm owner Peg Schafer is a whirlwind. She blows in and out of the farm office, holding her work gloves in one hand and sun hat in the other as she directs interns, moves seed bins, and answers questions from visitors about her farm and educational efforts. Each day requires this kind of energy from the woman who is not only bringing quality Chinese medicinal herbs to market but also raising awareness about the plight of endangered wild medicinal herbs. Peg's business associate, herbalist Sean Fannin of Fu Tian Herbs, is present as well—serving as foil to her dynamism with quiet, measured observations from an herbalist's point of view.

Together, Schafer and Fannin are working to bring organic, locally grown medicinal herbs to the Oriental medicine (OM) community in the United States. After starting her farm in 1997 with just a few herbs, Schafer now contract grows more than forty different varieties (while keeping several hundred in the farm's collection).

Many of these herbs are processed into extracts and other products through Fu Tian Herbs.

For Schafer and Fannin, however, the reasons for farming and selling medicinal herbs go much deeper than a desire to make a profession out of personal interest. Schafer continually emphasizes that growing medicinal herbs in a sustainable manner is a healing endeavor not just for the intended users but for the plants and the environment as a whole. "Overharvesting of medicinal herbs in China and increasing use worldwide are bringing things to a crisis. We will not have enough herbs for the world," she emphasizes. "Many of the herbs in China are harvested in the wild and are not cultivated. So if we want to use these herbs worldwide we're going to have to start cultivating them."



One-hundred-foot rows of mixed Chinese herbs being grown at the Chinese Medicinal Herb Farm.

notice this phenomenon in your home medicine chest: commercial herbal formulas are increasingly making the most of the world's pharmacopeias. Some commercial Western “wellness formulas” include the Chinese herbs *Isatis indigotica* or *I. tinctoria* (woad, běi bǎn lán gēn), which is used for its antiviral properties, and *Astragalus membranaceus* (milk vetch, huáng qí) and *Eleutherococcus senticosus* (eleuthero, cì wǔ jiā)—both of which are used for their immune-enhancing capabilities. Ashwagandha is one example of an herb that has crossed over from the herbal tradition of India into common usage in Western and Chinese herbalism. Ashwagandha is historically one of the most important herbs in Ayurveda, where it is considered a strengthening tonic. It has been adopted by Chinese herbal practitioners as an herb that tonifies (strengthens or supplements) without creating an undesired condition referred to as heat. Many herbalists consider the properties of Ashwagandha to be ginsenglike in quality without the associated heating qualities. Some formulas for joint health include Ashwagandha as well as turmeric (*Curcuma longa*), which is known for its anti-inflammatory action.

It makes sense that we should utilize the gathering knowledge of what nature and every cultural tradition has to offer. We can think of all these herbs as the world's medicine chest.

What Herb Consumers Want

Herbalists and medicine makers as well as herb end users want vibrant, effective, and clean medicine. Thus, they seek fresh and freshly dried Chinese herbs grown without pesticides, herbicides, and other possible contaminants. Driven by market demand and fueled by negative media reports about Chinese herbal products, progressive Chinese herbal practitioners and end users of Chinese herbs are keen to find better quality herbs.

Domestically cultivated medicinal herbs grown with integrity in healthy ecosystems exhibit a freshness and vitality that is apparent. Organoleptic, or sensory, analysis demonstrably shows the exceptional quality of such herbs—how the herb looks, tastes,

“Adopted” Chinese Herbs

Not all “Chinese” botanicals are indigenous to China; in the past thousand years or so many have been adopted from other regions. One of the most revered in China is *Panax quinquefolius* (American ginseng, xī yáng shēn), which is indigenous to the Appalachian Mountains. A few other herbs commonly used in Chinese medicine that evolved outside China include *Carthamus tinctorius* (safflower, hóng huā), *Celosia argentea* (qīng xiāng zǐ), and *C. cristata* (cockscomb, jī guān huā).

and smells indicates the vital qi (chì) inherent in the herb. A simplified definition of qi is the life force or essence that permeates the whole body and indeed the entire cosmos. Biochemical analyses of domestic herbs have clearly shown that medicinal phytochemicals required in quality products are more than accounted for.¹ (For a more thorough exploration of herb quality issues, see chapter 2.)

RISKS TO THE FUTURE OF HERBALISM

The effectiveness of Chinese herbal medicine has led to a global explosion of interest in Chinese herbs. In the United States this is partly in response to the national health care crisis. And throughout the developed world, many people are finding that serving as laboratory rats for the pharmaceutical industry is not in their best interest and are returning to an enduring and more natural healing model. For peoples that have an intact herbal tradition such as those in China and India, the high cost of pharmaceuticals often precludes their use—and herbs are the de facto



Asian Medicine

The ancient art of Asian medicine is a comprehensive health care system integrating the wholeness of the mind, body, and spirit. It encompasses, as many of you may already know, herbology, acupuncture, massage, and organized movement practices—as well as the incorporation of other methodologies of maintaining harmony. Historically the utilization of foods and herbs was the primary instrument for supporting balance and health.



medicine of choice. This is true for many other indigenous cultures worldwide as well.

Globally speaking, if we are not careful to cultivate these herbs we are using in ever-greater quantities, there is a very strong potential that we will lose more of nature's herbal gifts to commercial or actual extinction.² Let's look at the market and production factors that threaten medicinal herbs.

Loss of Habitat and Unsustainable Wild-Collecting Practices

Climate change and loss of habitat are other major issues threatening the availability of these valued herbs. In China the majority of herbs are still collected from the wild; increased harvesting to meet demand is placing pressure on the natural reserves of China, and 15–20 percent of these herbs are now considered endangered.³ See chapter 5 for a full discussion of these global problems.

Quality Concerns

As botanicals from all over the world come into U.S. markets, concerns about quality, contamination, correct identification, availability, and substitutions

of one herb for another continue to plague the herbal import industry.⁴ The further afield herbs originate, the longer the supply chain—and more inherent the risks due to distance and the differences in standards and practices in herb production and handling.

Contamination is another potentially serious problem; U.S. consumers are questioning the cleanliness of crops that are not grown domestically. When a wholesale herb importer approached me about growing Chinese herbs for his business, I asked him why he was not interested in using his usual organic Chinese sources. He answered that he was indeed receiving herbs being grown organically in China; however, during routine testing they continually showed pesticide contamination. (There are many possible sources of contamination of organically grown crops, including uncontrolled pesticide drift or contaminants in the air, water, or soil.)

Rising Costs, Rising Prices

Worldwide, the cost of the majority of Chinese medicinal plants has increased sharply over the past few years. Over the next few years prices are expected to continue to rise another 30 percent.⁵ Rising costs are the result of many factors. One factor is product shortages, which may result from ecological disasters, the use of herbs to treat widespread epidemics, and Chinese stockpiling practices. Other factors within China that are pushing prices higher include inflation and a growing middle class that is purchasing more and more herbs. Prices also rise as medicinal herbs are brought into cultivation because herb farming is a more costly means of production than wild-harvesting. And because labor rates are also on the rise, the costs of production of cultivated herbs will likely continue to increase.⁶

SOLUTIONS FOR CONTINUED AVAILABILITY

Despite the challenges we face in ensuring a viable future for Chinese medicinal herbs, I am optimistic about the outlook. There is hope for the continued availability of these valuable medicinal resources, especially if we look to sustainable wild-collection

practices of Asian herbs coupled with the implementation of ecologically based agriculture. In conjunction with this, consumers worldwide will have to recognize the true cost and expense of producing these unique (and often long-term) crops—or farmers will not be able to afford to grow at least some of these herbs. We need to educate consumers to accept and support fair pricing reflecting the costs of production, and this is covered in more detail in chapter 4.

For cultivation as a whole to be successful in the United States *and* in China, all farmers must grow in a way that produces good quality, medicinally efficacious herbs—and create enough supply to satisfy market demand. Quantity alone is not sufficient; a reputation of poor-quality herbs will kill any potential emerging market opportunities and create further demands for wild-collected herbs.

Accessibility concerns due to extreme weather events, ecological disasters, import or export bans, or potential tariffs make it sound reasoning to spread out the risk of herb loss and cultivate in many locations. This is good news for small farmers in North America and beyond. The more farmers that choose to grow Chinese medicinal herbs in diverse habitats, the better. Chinese medicinal herbs encompass an extremely diverse set of plants with varying environmental niches. Whether you hope to grow Chinese herbs in California, Florida, or New York, you'll find plants that can thrive in your climate.

My Part of the Solution

Since 1997, my farm, the Chinese Medicinal Herb Farm, has specialized in certified organically grown

Chinese, Ayurvedic, and other Asian medicinal field-grown herbs and seeds. I also happily cultivate future growers through our internship and other programs. The goal, indeed the mission, is to grow the highest quality herbs with the best medicinal value possible. Here on the farm in the coastal foothills in the northern reaches of the San Francisco Bay area, my crew and I grow sustainably—striving to produce herbs with wild qualities and in a harmony with nature that guides us and helps us feel good about what we do and how we do it. Operating partly as an experimental farm, we have grown and harvested more than 250 Asian botanicals. These botanicals are grown and harvested according to Chinese tradition. Aromatic herbs still carry their distinct scents, leaves tend to be unbroken, colors are vibrant; integrity is present.

At first we conducted multiple herb cultivation trials and recorded data for cost analysis for each herb as it applies to the methods and management at this particular farm. As this data is starting to come into focus, we are branching out into organoleptic and biochemical analysis—with the collaboration of knowledgeable individuals, schools, grant opportunities, and herb industry businesses.

Of all the many jobs I've had, this is the only one where people often thank me for what I do. It is my living, but it is also my service—my personal way of a right livelihood, trying to be part of the solution. I am grateful that I have had the opportunity, and I invite you to participate in the journey.