

## COOL WET SUMMER BENEFITS HFG

Persistent cool, rainy weather following a winter of good snow cover got plenty of gripes from city folk, but has been cause for rejoicing in the High Falls Garden field this summer.

Good conditions for plants meant that over 1300 new seedlings were moved into the field by spring's end. As of this printing, the rains continue and the HFG field, as well as the rest of the Thompson-Finch Farm and all of Columbia County, is radiant with lush new growth.

After the HFG crew struggled to hand-water the plants through last summer's drought, farmers Don and Marnie MacLean were prepared for more of the same this year with new irrigation equipment for the HFG field as well as for all of the Farm's other crops. But as of the Fourth of July, irrigation was not yet necessary.

Preparations for planting began in February when Chinese medicinal herb seeds provided by "extraordinary" collector Robert Newman (*see Winter 1996 issue*) were sown in flats and placed in an enclosure heated to 70-80° F for germination. Sprouts were kept under grow lights until April when the seasonal greenhouse was up and running. By mid-May the greenhouse was overflowing, with many of the seedlings becoming pot-bound as they waited to move into the field.

Conditions were too wet to move equipment into the field until late May (wet soil loses healthy structure if compacted by human feet or machinery). By Memorial Day weekend, however, Don had driven his special rig, a multi-purpose cultivator and raised bed-maker that he designed and constructed, through the HFG field to prepare twelve new, 200-foot-long, four-foot-wide beds of soil raised slightly above field level.

A planting marathon was planned for the holiday weekend, with Friend of HFG Mary McDermott of Portsmouth, NH coming in to lend a hand. At the last minute, a forecast of frost interrupted the proceedings (the average last frost date is May 15) but by Memorial Day the crew was able to get into the field and put in nearly 1,000 seedlings.

The following Saturday, a giant cloudburst dumped three to four inches of rain on the Farm and water collected into a big puddle in the middle of the HFG field.

### *NY State Bans Ephedra Products*

Governor Pataki announced this past spring that sales of herbal products containing Ephedra would be banned in New York State at the point of sale (possession is still legal). This move comes in response to reports of injuries and even a death from abuses of herbs, in this case involving unscrupulous manufacturers who sell "herbal highs" to foolish people.

High Falls Gardens regrets the bad press for Ephedra, which is an important herb in Chinese medicine called *Ma Huang*, used sparingly in formulations. One purpose for formulas containing Ephedra is to release to the exterior under conditions of wind-cold. For example, a patient may experience cold symptoms that include low fever with chills, muscle aches and a dull headache, and an herbalist may prescribe a decoction that includes Ephedra to arouse *Wei Chi* (defensive energies) and sweat out the pathogen.

Ephedra stimulates the metabolism, including heartbeat, and produces a caffeine-like rush of energy. Only silly teenagers would consider this to be an exciting "high" but, of course, taken in large quantities the herbs are harmful to the system. Quacks and snake-oil salesmen take advantage of widespread ignorance of herbs and their appropriate uses.

The official High Falls Gardens position on these events is that people who are unfamiliar with the Chinese herbs but want to learn should find a practitioner to work with. One can, and should, read books and become a member of HFG, but there is no substitute for working with a knowledgeable herbalist. This person may be an acupuncturist (licensed in New York state), a certified naturopath, a reputable pharmacist in Chinatown, or an eclectically-trained herbalist who is recognized for skills and experience. For the convenience of our members, HFG is in the process of assembling a list of recommended practitioners.

However, good root development on the seedlings made them tough submariners and only a handful were lost.

By spring's end, a total of 1,360 new plants had been moved into the field, representing more than a hundred species and scores of separate (*COOL SUMMER cont'd. p. 4*)

# Why *CHINESE* Herbs?

(And Other Questions We're Often Asked)

☐ **Considering the current revival of interest in our own North American herbs, why is it important to cultivate herbs native to China?**

The herbal traditions of China are by far the best documented in the world. In contrast, other traditions were usually transmitted orally and in modern times, particularly in the industrialized world, few practitioners are available to tell the tale of how the herbs were actually used.

For instance, because of the damage done by European colonialism to Native American cultures there are now scant opportunities to learn these traditions. The European herbal traditions, as is well known, were suppressed through persecution of herbalists at the advent of the modern era. What remains of European herbal knowledge is largely anecdotal.

In order to reconstruct an effective theory and practice, contemporary North American or European herbalists must reinvent the wheel or be guided by the knowledge of other traditions. Herbalists who gain experience in the Chinese theory and techniques can more effectively use herbs native to other regions of the world.

From the extensive written records of China we can learn specific details of how the ancients employed herbs to treat and prevent illness or deterioration. Classical Chinese medicine is a highly sophisticated philosophy devoted to explaining the balanced functioning of the human body/mind/spirit and what to do when these systems become unbalanced. Chinese medicine includes theories of health or wellness, in contrast to Western medicine which focuses on disease.

Further, herbalism has never been completely suppressed in China and practical knowledge has been transmitted down unbroken lines of practitioners to the present day. In the 1930s herbalism was outlawed in China in deference to the supposed superiority of Western medicine. But the traditions went underground, to the provinces. When the Communists defeated the Nationalists, and due to the fact that Mao Tse-Tung and his cronies were from the provinces, they decreed traditional medicine as official (TCM = Traditional Chinese Medicine). However, the official version took a piece from one local tradition here, another tradition there, and in merging them all together forfeited the integrity of each. Worse, the official version took on the trappings of Western medicine in order to prove that China is indeed a modern nation.

During the last forty years TCM has often suffered the comparison with Western medicine which relies on scientifically-proven techniques. For contemporary

science as practiced in the West, only double-blind experiments (neither the doctor nor the patient knows if the test is the medicine or the placebo) with matched control groups are considered valid. The Chinese have been repeatedly criticized because they do not use these kinds of controls when trying to validate the practice of TCM, and yet claim the results are valid by scientific standards. They are trying to be something they're not, while what they are is at least as interesting and useful.

Precedence is given to Western science even in modern China, when in fact the traditions are a form of empirical knowledge and are seldom conducive to replicable proofs. The Chinese traditions and Western science are two

### *Why was herbalism suppressed in Europe?*

Widespread superstition made it easy to persecute herbal healers in medieval Europe. But there may have been ulterior motives at work, with parallels to our own time. Historical evidence suggests that centralization of power in the growing cities enabled Church and civil authorities to collaborate in wresting control of land from peasants and to consolidate it under control of the nobility. Often the victim was a land-owning widow who could be stripped of her holdings through charges of witchcraft. A fascinating account of this interpretation is found in a film called *The Burning Times*, produced by The National Film Board of Canada and available in video for purchase by private viewers for \$39.95 (including shipping) from Direct Cinema, 800-525-0000 in the U.S. (As per copyright laws, a copy with license for viewing by groups costs more.)

completely different, contrasting approaches to human health, and one cannot be made into the other. Rather, both can serve humanity as two strong, separate but complementary, and equally valued approaches to health.

☐ **Why not just buy the dried herbs in Chinatown? It's inexpensive, and you can find good practitioners there.**

That's true, and we're doing that until we can harvest our own crops. But for the same reasons that widely distributed food production is both desirable and wise, we wish to create a source of home-grown herbs.

With imported food or herbs one has little control over--indeed little possibility of understanding--how the plants are grown and processed. Soils may be depleted, chemi-

cal agriculture may be employed, harmful chemicals or irradiation may be used as preservatives. The age of the material is uncertain. Most importantly, the global economy and its trade relies on the use of artificially-cheap fossil fuels for transportation. (We say "artificially cheap" because if global warming is even a *possible* outcome we cannot afford to continue the use of such fuels.)

Since the Second World War, U.S. government policy has focused on making food as cheap and plentiful as possible. Now we are beginning to understand that cheap food is a fallacy and a trap, because we end up paying for it many times over, whether in vitamin pills or in medical bills.

Many observers of the farm policy situation now believe that our focus should be redirected to *food security*, which has several aspects:

- Access for everyone to the best quality and variety of the freshest possible food. This means that more people will be growing food, using organic methods, in more places (including city roof gardens, empty lots and greenhouses).
- Rebuilding the soil, restoring the damage done to the soils by chemical-based agriculture and ensuring that we will be able to produce the nutritional quality and diversity necessary for optimum health, including the strengthening of our immune systems.
- Preservation of medium-sized and small farms, for the task of rebuilding soils requires crop diversity and labor-intensive methods possible only on smaller farms that are managed according to preindustrial standards of value.
- Reversal of the trend toward less diversity in food crops, referring both to the genetic strains of separate crop species and to the way the crops are grown. More diversity means more protection from crop failure, including highly distributed production on many local farms, highly diversified strains of food crops and a diverse combination of plants on one farm).
- Protection from corporate profit-driven experimentation with bioengineered crops and other life forms. This is being done under the guise of science, whereas true, responsible science acknowledges that Nature learns more quickly than people do.

If our local farms can produce what we need, the freshest and cleanest possible food and herbs, why not buy from them and support the local or regional economy that most affects our daily lives?

Herbs--medicinal, culinary and in-between--can play an important role in food security because such crops allow the farmer to diversify the ecosystem of the individual farm and maximize the economic return.

☐ ***Why should I go to the trouble to boil dried herbs and drink the strange-tasting witches' brew, when science can discover the active ingredients in the plants and then synthesize drugs from them?***

You might have to wait a few more decades to get what you need. A single herb can contain thousands of active compounds. In the past fifty years modern science has finally developed the means to isolate and identify some of these chemicals, but to date they have barely scratched the surface. Moreover, the chemicals appear to work in concert (an isolated compound may not be effective or as effective without the others). A current example is the discovery that two or three drugs for HIV work better together than any one of them alone. The mechanism of these effects is as yet unknown.

Meanwhile, the fact that certain combinations of plants work to resolve certain imbalances has been the stock in trade for thousands of years of Chinese medicine. The Chinese never bothered to ask how the plants work, they just recorded the specific circumstances, many details of the symptoms, and the effects. This is empirical knowledge at its finest. The fact that these dynamics cannot yet be understood by science hardly makes this knowledge less valuable.

From three to fifteen different kinds of herbs are typically used in a traditional Chinese formula, never just one herb alone, to avoid destabilizing the body in any way. This is the opposite approach to using synthesized drugs which, by definition, are single purified chemicals. The combination of herbs, plus the long history of observations of their effects, is what makes traditional remedies relatively safe compared to modern drugs.

The traditional method of drinking a decoction helps insure that you get much of the substance of the plants in a reasonably close-to-fresh state. Of course, fresh-picked plants would be the best remedy, but considering the number and variety of herbs in a typical formula, such a remedy would be very unusual. Dried material is the norm for decoctions. A decoction's effect can be amplified by the water and its temperature, the bitter taste, as well as when you drink it in relation to meals, time of day, and season of the year.

☐ ***All this discussion is very interesting, but why don't you have any home-grown products yet?***

Hey, this stuff is very new (or perhaps we should say, very old but forgotten for a long time) -- not only to us, but to the West in general. For a more complete answer, see page four of this issue, under the section entitled *Results Will Take Time*.

Meanwhile, please stay with us. The discussions will get even more interesting within the next five to ten years, as awareness and acceptance of herbal remedies and herbal practitioners increase. ■

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**(COOL WET SUMMER** *continued from p. 1*) sources around the world, from a botanical garden in Poland to collectors in Nanjing.

Friends of HFG and, certainly, experienced farmers will recognize that any celebration of this season's success, however gratifying, is highly conditional. Bad conditions will surely follow, many of the plants may not be hardy or otherwise adaptable to our region, a great amount of arduous and complex work must be performed in order for High Falls Gardens to achieve results.

### Results Will Take Time

The majority of the Chinese medicinal herbs are perennials, with fractions taken from mature plants. For example, the roots are harvested after the plant is three to five years old or, in the case of Ginseng (which HFG is not bothering to grow because the Wisconsin farmers are already doing such a good job), seven years.

After harvest, our herbs will be subject to a two-part evaluation before becoming available for consumption. One aspect of this is Western-style scientific testing, which can identify the presence and quantity of known compounds in the plant.

The methods of herbalism, on the other hand, account for the *unknown* compounds in the plant, and the second type of evaluation is qualitative rather than quantitative. Experienced herbalists can actually taste-test the herbs to compare them to the ones grown in China. Comparable to the processes involved in wine-making or perfumery, this kind of testing depends on people with highly developed and practiced sensory skills. Also along this line, experienced organic farmers can taste their soil to determine whether it has the right balance of ingredients. Both kinds of evaluation promise to be yet another fascinating aspect of HFG's work.

Meanwhile, the rewards are there already, in the field, as the plants unfold and begin to reveal their mysteries. To give our Friends a quick preview of the marvels that await us, we've prepared the following summary of two categories of our herbs.

### Aromatics

One exception to this caution to wait for results is a class of herbs that can be harvested and evaluated this year. These are the mints and certain other aromatics, seemingly an obvious type of herb to grow. Yet because the fractions taken are the relatively fragile leaves, buds and stems, the aromatics are an especially important category for growing on a local or regional level. Freshness is all, in this category; the quality of imported material is typically low.

Aromatics are often used in formulas to "release to the exterior" or to help bring the properties of the other ingredients in the formula to the upper part and surface of

the body. HFG is growing two *Menthas* to develop a useful *Bo He*, the mint remedy. *Mentha haplocalyx* and a cultivar of *M. piperita* called 'Blue Balsam Tea' are bushy, thriving and aromatic enough to give your mouth a terrific blast of flavor as you chew a bit of leaf. Thanks to our good rains, both are thriving in full sun.

Another important aromatic is *Schizonepeta tenuifolia*, or *Jing Jie*, of which the bud and stem are used. With the same organ system affinities and taste characteristics as the *Menthas*, this plant has a warming rather than a cooling nature. *Schizonepeta* might be used in a formula to help the body resist exogenous wind-cold, and in China is used in formulas for children to help measles erupt and heal faster.

*Perilla frutescens*, used in Japanese cuisine as a garnish called *Shiso*, is a self-sowing annual known to gardeners of ornamentals as a lovely, dark red-purple, contrast foliage plant. Slow to get started, seedlings can appear in late June two or three years later in unexpected places. In late October a wonderfully fragrant, three-foot bush can be harvested. In Chinese herbalism *Perilla* yields two remedies. The leaf (*Zi Su Ye*) is acrid, warm, releases to the exterior, has a Lung/Spleen affinity, and is used in digestive formulas and to quell nausea. The seed, *Zi Su*, which has a Large Intestine/Lung affinity, is known to help relieve coughing and wheezing.

*Agastache rugosa* (*Huo Xiang*), Korean Mint or Patchouli, while not technically an aromatic, is acrid, slightly warm and has a pronounced spicy flavor. The leaf is considered to transform dampness, with a Lung/Spleen/Stomach affinity. This has been used for many centuries in formulations to relieve indigestion.

### Astragalus

*Astragalus* root (*Huang Qi*) and, to a lesser extent, the seed (*Sha Yuan Ji Li*), are very important herbs in the Chinese pharmacopoeia. The root, along with White *Atractylodes*, was a favorite herb of Li Dong-yuan, founder of the Earth School (see HFG Winter 1996 issue). Characterized as sweet and slightly warm, *Astragalus* root tonifies Qi, with a Lung/Spleen affinity. Herbalists have long recognized the herb's value in regulating the body's water-fire balance, and now even Western science is interested in the adaptogenic properties of *Astragalus*, its capacity to help the body adapt to changing conditions.

The plant is a vetch, of the family Leguminosae, and HFG is currently growing five species of the genus *Astragalus*: *A. adsurgens*, *A. complanatus*, *A. membranaceus*, *A. mongholicus*, and *A. sinicus*. The five plants are intriguingly different in form, color and habit, and we anticipate some differences in how they winter over, develop roots, and test out in herbal evaluations, as well.

This summer we have been revelling in Nature's infinite variety and imagination, and hope to be able to share some of Her secrets with you soon. ■