Dear Friends of High Falls Gardens,

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The transition to a new millennium being difficult, this is the first newsletter since last July. (Good excuse, but I can't use it again.) Nevertheless, there's positive news to report beyond mere evidence of our continued survival.

It was a jungle out there during the 2000 season! So much rain that we didn't use our new sprinkler system even once. We learned the hard way what our local farmers have been saying, that once you have a good irrigation system in place the dry, sunny years are better and easier than the wet years. Alas, those lovely garden nooks sometimes felt like the Little Shop of Horrors. The weeds, the weeds!

Overgrowth and fungi made the plants look exhausted on HFG Field Day, September 16th. But perhaps this appearance was only in the critical eye of the intimate weeder who knows the plants' private parts. To the three dozen visitors, all was lush and sparkling in the sunshine. We pitched our yellow and white tent in the garden and family and friends made a party.

The new bees from Champlain Valley did very well over the summer and by frost-time had filled three supers with brood and comb. With those stores, and the formic acid treatment to remove Varroa mites, the bees were prepared for winter as best we novices know how. The autumn frosts were early and hard but were greeted with great sighs of relief, especially after snows blanketed the garden.

Around noon on February 10th, a brief window of thaw and sunshine, we watched the hive as several dozen workers flew out and lobbed poops on us and the surrounding snow. (They eat their honey stores all winter to keep themselves alive and to generate warmth around the queen. But they need temperatures of 50° F or above to come outside to defecate.) That was the High Falls Gardens version of Groundhog Day, and the bees' survival was cause for rejoicing.

Those cheers have turned to groans as March has come and we're still shoveling. The good news is that the snow cover has been constant this winter, protecting those plants. And, no doubt, the weeds.

Student Gardens to Bloom Throughout Nation

Council Backs HFG's Proposals for Plant Studies

Last year High Falls Gardens, backed by the Council of Colleges of Acupuncture and Oriental Medicine (CCAOM), submitted two proposals to fund Asian medicinal plant studies on a national level. One of the proposals, to support gardens created by students at several of the CCAOM member colleges, was funded for 2001 by the Stanley Smith Horticultural Trust. The award includes eight \$1500 stipends for student garden programs and the development of a website to share horticultural information related to Asian medicinal plant studies.

The second proposal was submitted to the (continued on page 2)

The View FROM HIGH FALLS GARDENS PO. Box 125 Philmont, NY 12565 USA

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STUDENT GARDENS

(continued from page 1)

U.S. Department of Agriculture, and is a plan for a nationwide trials program, to be carried out by the colleges in cooperation with local farmers, universities and extension services. Just recently, funding was declined for 2001, but HFG and allies expect to resubmit a stronger proposal next year.

Those interested in eventual domestic production of the Asian medicinal plants welcome these initiatives as important steps toward development of the market.

A Solid Base for Research

In the past year, HFG's work has been joined by a number of new colleagues. We are seeing the contours of an emerging continent-wide effort to grow and understand the Asian medicinal plants.

Our first research project, a three-year trial program for six species of Chinese medicinal herbs, was completed at the end of 2000. This pioneering set of field trials was carried out in collaboration with Dr. Lyle E. Craker of the University of Massachusetts at Amherst and funded in part by Northeast SARE (Sustainable Agriculture Research and Education), a U.S. Department of Agriculture program. Replicates of the test plants were sited at HFG's Hillview Farm field and at three other participating farms in New England. Reports on these trials will be published later this year.

While these data are important — as are the results of central New York's (CADE's) Medicinal Plant Project and the Minnesota Medicinal Herb Network's cultivation project — our ambition is to be able to compare outcomes across a wide variety of climate zones. While comparisons are done informally among growers, formal plant trials require simultaneous planting of identical material in fixed amounts and arrangements, to help

insure that variations in results are due to climate and soil conditions only.

To compete for research funding, especially against the predominant interest in (some would say "obsession with") biochemistry and genetics, is a mighty challenge. Yet the world is changing rapidly, and many helpers are at hand. The past few years have seen substantial development of the practice of traditional Oriental medicine in North America. The Acupuncture and Oriental Medicine (A&OM) professional organizations are strong, the accredited colleges have established a doctoral curriculum, the number of colleges has grown in a short time to over forty - and they are located in every region of the U.S. Where would we find a better network to sponsor Asian medicinal plant research?

The colleges of A&OM need not reinvent the wheel. Each has the necessary resources nearby, which include universities, botanical gardens, the extension service and, last but not least, ecologically conscious, experienced farmers. The model for this cooperative arrangement already exists in Minnesota and Sonoma County, California, as detailed in past issues of *The View*. Now, if similar arrangements can be established in Florida, Texas/New Mexico, the Northwest and Hawaii, we'll have locales spanning a wide range of climate zones. Funds are being sought, participation is welcome.

Prospects for Medicinal Plant Production

HFG has worked with farmers for years. They are ready for medicinal plants and will plant as soon as the markets are organized enough to pay a fair price for a clean, top-quality, locally grown product. Many savvy farmers who produce clean food have learned to avoid the worldwide commodities markets and to seek out direct market connections. As a result, direct-marketed herb cooperatives are being developed in California, Minnesota,

The marketplace itself is in the process of being reinvented. Since 1998 the mainstream herbal products industry has suffered the same consolidation trend as other sectors of the economy, and retail sales have actually declined, as noted by industry analyst Peggy Brevoort and also Mark Blumenthal in the latest issue of Herbalgram. Mainstream observers cite recent herbal product scares, as well as consumer uncertainty regarding products and dosages, to explain the decline in sales.

However, from 1998 to 1999 there was a five percent increase in sales based in health food stores. This bit of evidence validates our distinct impressions, here amid the grass roots, of a widening split in consumer awareness of medicinal herbs. Attitudes perfectly mirror the trends in the food industry. Organic food, now

defined by federal law, has been enjoying a twenty percent annual sales growth rate in the U.S., while industrial food makers consolidate, continue their advertising battle over razorthin slices of market share. and do their best to claim the concept of "organic." Although the federal organic standard currently excludes genetically-modified organisms, irradiation and other nasties, the need for food security prompts the educated consumer to seek food with "a face, a place and a taste," to quote Michael Sligh of Rural Advancement Foundation International (RAFI). Local food, or "real" food (our favorite term now that the feds have appropriated the "O" word) is now the leading edge of the movement.

If a more educated consumer perceives a difference between "real" medicinal herbs and "junk" medicinal herbs, in the same way they view food, they learn quickly

how to find the good stuff. There is growing recognition of herbalism as a high art, much more than pills advertised on TV, and of experienced practitioners with access to better information. Meanwhile, quietly beneath the radar of the corporate media, over forty accredited colleges of acupuncture and Oriental medicine are busy training thousands of herbal practitioners.

The Student Gardens proposal was a joint effort. Many thanks to Robert Newman, L.Ac., M.S.T.C.M., Naomi Alson, L.Ac. (former student gardener at New England School of Acupuncture and owner of Naomi's Herbs in Lenox, Massachusetts), and Marylynn Morales, L.Ac. (former student gardener at American College of Traditional Chinese Medicine in San Francisco). Both Naomi and Marylynn were licensed last year and are now in practice, but they continue to support the student gardens at their colleges.

Student Gardens: How YOU Can Participate

- ◆ Students/Colleges of A&OM: One page proposals due April 30, as announced previously.
- → Farmers & Practicing Herbalists: Contact your local college of A&OM (see national list at www.ccaom.org, or phone 301-313-0868 for information).
- ♦ Universities & Botanic Gardens: Same as above.
- → All Others: Stay posted with HFG for future reports. Note that one hundred percent of the funding for Student Gardens goes directly to the colleges and for the website. Meanwhile, HFG needs money for operations this year. Know where we can get some? Call or email Jean ASAP! Or, send a check to the High Falls Gardens Fund (see back cover).

Aristolochia Controversy Heats Up

The U.S. Food and Drug Administration (FDA), in a display of questionable logic that begs the question of who they're working for, launched

Need more information? Contact the national professional associations of acupuncture and Oriental medicine:

AAOM 610-266-1433 AOMA 253-851-6896

www.aaom.org

www.AcupunctureAlliance.org

two seemingly contradictory initiatives in recent months. On one hand, they banned the import of several Chinese medicinal herbs in response to the European controversy over Aristolochia (see "Herbal Product Makers Consider Self Regulation" in a previous issue of The View, Vol. VI No. 2). FDA agents then "visited," without invitation, the U.S. offices of several Chinese medicinal herb product manufacturers, including Lotus, Qualiherb, East Earth, Crane and Blue Light Herbs. They demanded a recall of products containing "aristolochic acid," and also statements of probable product hazards.

On the other hand, in mid-January FDA announced "regulations" on geneticallyengineered foods, proposing that the pre-market testing and labeling of new products be a voluntary process for manufacturers. In addition, inverse labeling such as "GMO Free" will be restricted.

Put these two moves together, and it's as if Big Brother is saying to the people, "You have to eat what's cooked up in the lab, without benefit of any objective testing or labeling, but we have to protect you from those traditional medicinal herbs—the ones with thousands of years of empirical science behind them—they'll kill you!"

While FDA invited a public comment period (until April 3) on the proposed "regulations" for genetically-engineered food products, the actions against Chinese medicinal herbs were covert, without public hearings or comments, expert testimony, or due process.

The profession of acupuncture and Oriental medicine has reacted defensively, displaying reflexes honed in the West where over the past five hundred years herbalism has become "alternative" medicine with a history of suppression. As all trained herbalists are well aware, many herbs can be toxic when used by unskilled people, in large quantities and over long periods of time. Herbalists also know that attacks on the pharmacopoeia tend to escalate. Even so, the formidable amount of evidence in the Aristolochia case must be weighed by the profession of A&OM, whose first responsibility is to their patients and only after that to uphold their traditions.

Several scientific investigations were performed in the wake of the problems in Europe, which involved undertrained Western health professionals prescribing herbs in combination with drugs as a diet regimen. The studies varied widely in quality; some examined the effects of the pure chemical derivative, aristolochic acid, and not the herb itself and, to no one's surprise, found severe

toxicity. The New England Journal of Medicine (Vol. 342 No. 23, June 8, 2000) summarized a number of these studies and concluded that the role of Chinese herbs in the incident(s) is still a matter of debate, as herb-drug interactions could not be ruled out.

FDA's actions prompted the American Association of Oriental Medicine (AAOM), one of the two U.S. professional associations, to send out an alert to its members advising them of their rights and suggesting they seek legal protection if contacted by federal agents. The AAOM also circulated petitions protesting the actions, and has formed a legal defense fund. They convened an emergency meeting in Los Angeles in January and decided to form a Chinese Herbal Medicine Coalition to represent the product makers.

Representatives of both professional associations — the AAOM and the Alliance (Acupuncture and Oriental Medicine Alliance/AOMA) — have commenced educational presentations and negotiations with the Food and Drug Administration. The Alliance will hold its annual meeting in Florida in early May and expects to convene a special panel on the Aristolochia case.

While the principle of defending the pharmacopoeia will be upheld, the profession as a whole has yet to reach an internal consensus regarding the continued use of Aristolochia. Several substitutes for fang ji are commonly used, including Stephania tetranda, one of the Menispermaceae family rather than Aristolochiaceae.

Messenger on 51st Street

Late last summer, each weekday morning as I walked west on 51st Street across midtown Manhattan, a curious supplicant began appearing in the same spot between Fifth and Sixth Avenues. A small, wizened man of apparently Asian heritage, he sat perfectly erect on a small portable stool, wisps of white hair softening his bald head, eyes downcast, left arm bent at the elbow extending an upturned palm upon which balanced a large cardboard coffee cup.

The first time I saw him I was struck with the image of a spiritual performance artist who offered a meditative reminder of basic human need to the passing hordes bent on acquisition. Being hard-hearted and habitually resistant to street beggars, I passed him time and again for many days. But eventually the performance so moved me that I stopped, put a dollar bill into his cup, and said, "Thank you."

Instantly he raised his wide, clear brown eyes and stared at me. We smiled at each other and I turned to continue to the office. On succeeding days whenever the weather was warm and sunny, he would appear in his spot, and I would stop to give him a bill and chat for a few minutes. And he told me his story.

His name is Samuel Vernon DeWinter, he said, but his friends call him Vernon. He is originally Philippino, 79 years old, of mixed ancestry including Chinese and Dutch. Early on I asked if he were a priest or monk and if he were meditating. Buddhist, Taoist?

"I am a Chr-r-ristian mystic," he said, with an elegant little trill — he was very well spoken, even erudite —"and I am doing my homework." He explained that he was in direct contact with God, citing what he called the basic premise of Christian mysticism, John 15:5, "I am the vine, you are the branches...."

This direct connection to God was helping him solve the great problem he had been working on for many years. He was figuring out a way to generate electricity very cheaply, without the use of fossil or nuclear fuels. He wanted to raise enough money to buy the Indian Point nuclear

reactor — "so the owners will be properly compensated," he explained with deep courtesy — and then to decommission it.

Over several conversations throughout the warm days of autumn. I learned more about Vern, as I called him, looking forward to greeting him on my daily path with "Hi, Vern, how is your homework going today?" Some days the street noise would bother him more than usual — he was meditating opposite the place where huge trucks load and unload for Radio City Music Hall — sometimes his energy was low and he would struggle to concentrate. He recognized the urgency of his work. "Did you hear about the accident at Indian Point?" he asked, referring to the 1999 release of radiation resulting from ConEd's failure to replace an aging component, and I had indeed read about it - in the alternative press, of course. Those poor people living near the plant absorbed that radiation. Together, Vern and I imagined the horror of another, more far-reaching accident only thirty miles from Manhattan. But always, even on the bad days, a radiant smile came straight out of those sparkling brown eyes.

In the brief span of our conversations, every so often one of the herd on the Street would stuff a bill into Vern's cup — and not only singles. From what I could gather, he lived in a rooming house near the Port Authority Bus Terminal, where the construction noise coming through his open window was worse than the noise there on 51st Street. He took encouragement from the fact that oil prices were rising — he tracked them daily, gesturing toward the three newspapers in his bag including The Financial Times of London. High prices would make the introduction of his new process easier, he said.

When colder weather came, Vern abandoned his spot. I had braced myself for his departure. But now in the dark days of winter, whenever the goal of domestic production of Asian medicinal plants begins to seem crazy and impossible, I think of Vern and his homework, and my burdens are suddenly lighter.

Cornell Examines Attitudes Toward Genetic Engineering, Gives Grade of "Incomplete"

Upstate in January, a group of self-identified community leaders bit off a juicy piece of Corporate America's \$50 million media campaign to whitewash the launch of untested, unlabeled genetically engineered food products upon the public. "Biotechnology: A Conference for Developing Community Leaders" was the title of this event, sponsored by LEAD New York, an agricultural development agency supported by Cornell University.

The conference was tightly scripted and executed, with a preliminary survey of the opinions, attitudes and knowledge of registered attendees. Assigned seating guaranteed that the community leaders would rub elbows with people who did not share their point of view. Even so, the encounter was mostly polite and, except for one especially cheeky, artful poster, a few gasps of disbelief and short blurts of outrage from the audience, academic decorum prevailed.

The Resistance confined its usual theatrics to a preemptive protest held outside the Binghamton Best Western Conference Center. Organized by Fishberries, a clever bunch based in Rochester, NY, the picket line featured organic farmers, a chef and other Real Food folks, some of them officially registered community leaders. Your faithful reporter wore a placard inquiring, "Are Your Children Guinea Pigs?" as we walked quietly back and forth for an hour or two, the snowflakes drifting down, rewarded with an occasional honk from a passing motorist.

All the scheduled speakers were academics and biases were obvious. Only one or two scientists were persuasive in their claims for neutrality. The Resistance was ably represented by Fred Kirschenmann, now director of the Leopold Center for Sustainable Agriculture, and Joan Gussow, professor emeritus of nutrition education, Columbia University Teachers College.

We developing community leaders learned that the industry's preferred terminology is "biotechnology." After all, friendly agricultural innovations such as the cotton gin and fish emulsion are also biotechnology, right?

Although questions were to be submitted in written form and pre-selected, on occasion a GE proponent at the podium went on the defensive against a challenge from the audience. A defining moment came when an industry consultant with a Ph.D. in Food Science extolled the anticipated benefits of Golden Rice, a highprofile project financed by the Rockefeller Foundation to genetically engineer the rice plant so the hulled and polished grains will contain betacarotene. It is well known that Asian peoples prefer white rice to brown. However, genetic engineers tend to ignore the inconvenient fact that Asians — at least those who have not been displaced from their land and thereby impoverished — traditionally add potherbs and other nutritional ingredients to a rice-based meal. When asked by a typically well-informed,

The World Hunger Canard

History shows, repeatedly, from the mid-19th century Irish Potato Famine to the droughts of the West African Sahel in recent decades, that food has been exported from the affected countries — in the form of cash crops grown for colonialist owners — while people starve and die by the thousands.

This and more inconvenient evidence against simplistic thinking is assembled in a paper, "The Myth of Scarcity", by F.M. Lappe, J. Collins and P. Rosset, available from Food First/Institute for Food and Development Policy, 398 60th St., Oakland CA 94608, tel. 510-654-4400, email foodfirst@foodfirst.org. Also reprinted in *The Natural Farmer*, Vol. 2 No. 47, Winter 2000-01, special supplement on "Feeding the World," an extremely informative issue from an excellent periodical (411 Sheldon Road, Barre MA 01005, 978-355-2853, email jackkitt@aol.com).

articulate organic farmer if she were aware of studies indicating that betacarotene cannot be assimilated without fats and protein in the diet, the consultant blinked, then snapped, "I'm not a nutritionist!"

The pro-GE mantra was repeated ritually, so many times that the consultants will probably advise industry PR people to diversify their propaganda. The standard arguments are: (1) Genetic engineering is a logical next step after conventional plant breeding, not very different from tissue-culturing and other recent techniques; (2) GE is necessary to meet world food needs; and (3) GE has resulted in less pesticide use.

In response to these points, the Resistance holds that: (1) Such "logic" is linear, reductionistic and, because it ignores the way Nature works outside the lab, anti-scientific; (2) World hunger is caused not by lack of food production capacity but by political and economic oppression (see sidebar); and (3) Those GE crops for which the reduced pesticides claim is true are able to fend off pests (however temporarily, until the pests adapt) because the pesticide has been bioengineered into the plant. The health consequences for the humans and animals who eat these plants are completely unknown.

Joan Gussow described genetic engineering as "technology in search of a problem," then raised the ultimate question. Deftly summarizing an argument presented by Craig Holdrege and Stephen Talbott in their paper "Golden Genes and World Hunger" (see sidebar), Joan noted that rice contains betacarotene in every part of the plant except the endosperm and asked, "What does the rice plant think of Golden Rice?"

The experience of the Resistance, notably the long-term empirical observations of organic farmers and Oriental medicine practitioners, has shown that an alteration of one part of the whole, whether a strand of DNA, a single organism or an ecosystem of organisms, can disrupt the balance and produce unforeseen consequences. What is particularly indigestible in the concept of genetic engineering, however, is the unsavory combination of technology in search of a problem with the corporations' drive for new products and profits.

Post-conference surveys were completed toward the end of the program, and preliminary results showed little change of heart among the forty percent who support the push for genetically engineered products and the sixty percent against. We were advised that the split is typical of current public opinion polls in the U.S. Now let's see if \$50 million worth of propaganda can change that, or whether Resistance will grow.

Yet your reporter was surprised to emerge from this encounter group feeling more sympathetic to Cornell University than before. Our common ground is the scarcity of independent funding for research. The conference demonstrated that, for every hubrisengorged academic picking his teeth and each dead-eyed corporate flack who calls for the check (in some cases the same person), there are several genuine scientists with heartburn. Funders of biological research may be obsessed at present with biochemistry and genetics, but the problem is ultimately one of political will. Where does the funding come from? If the American people do not provide sufficient means for independent research, then corporations and their mindless appetites fill the void.

See "Golden Genes and World Hunger: Let Them Eat Transgenic Rice?" by Craig Holdrege and Stephen L. Talbott in Issue #108, 6 July 2000, of NetFuture, a fascinating on-line newsletter edited by Steve Talbott (www.netfuture.org).

Looking for a lyrical, clear expression of why genetic engineering is inherently hazardous? See Craig Holdrege's 1996 book, Genetics and the Manipulation of Life: The Forgotten Factor of Context (Lindisfarne Press, RR4 Box 94 A1, Hudson NY 12534), also available from The Nature Institute, 169 Route 21C, Ghent NY 12075, telephone 518-672-0116.

Yes, it all comes down to who pays the bills. One more good reason for us to take back our government.

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