



The Garlic Press

File #9

THE REGULAR, AND NOT SO REGULAR, NEWSLETTER OF THE GARLIC SEED FOUNDATION OF NYS

WINTER 1990-91

Report on Garlic Day 1990

Garlic Days, over the past few years have not been blessed with sun, and this year continued the pattern. The rain and wind did not dampen the spirits of the fifty plus growers and consumers of the stinking rose who attended. The day's agenda was mixed with emphasis on marketing and production and the usual festivities. The pot luck lunch was well received. As usual Ron Bennett's fresh raspberry cheese cake was none too large, and for the tastes of the true garlic lovers, Frank Palermo's baked egg plant and garlic had excellent reviews.

The day began with an excellent talk on irrigation by Fran Dellamano, Cooperative Extension Agricultural Agent from Oswego County. (See *Considering Irrigation of Garlic?*) The two primary marketing presentations were made by Tim Peach, of Red Berry Farm, and Paul Eaton, N.Y.S. Dept. of Ag & Mkts. Red Berry Farm produces and markets a wide range of sprouts and other specialty items (shallots, horse radish, etc.) throughout central NY state. Finding and maintaining a niche for these products was the focus of Tim's presentation. While garlic is not part of their product line, many similarities were discussed. Attractive labels and their design, along with packaging types and sizes, were viewed as critical for consumer response. While most of the garlic producers attending are able to market directly without the additional expense of labels and packaging, it was clear that as more N.Y.S. garlic is produced, or as a grower expands, more conventional approaches to market will need to be considered.

The N.Y.S. Seal of Quality program was presented by Paul Eaton. Emphasis was on the program in general and its purpose of establishing name recognition for N.Y.S. Agricultural products and standards for specific products and their costs. A discussion of considerations for marketing garlic under the Seal of Quality followed the presentation. Standards of excellence, usually based on size, eye appeal and anticipated volume to be marketed, were also explored. The discussion increased awareness that as competition continues from California and Argentina garlic,

the Seal of Quality would be one additional approach to distinguish N.Y.S. produce.

In the segment on production methods, the subject was weed control, which has been a focus of Dr. Robin Bellinder at Cornell. She had been approached by large-scale growers to evaluate conventional weed control methods. Her work was briefly reviewed by Steve Miller, Vegetable Crops Specialist from Oneida County. Steve also discussed the ongoing work of Dave LaParco in Plant Pathology at Cornell. Dave has been very supportive in working with growers, and as time permits, he has tried to gain a deeper understanding of the diseases affecting garlic. Dave stresses the importance of sound cultural practices, crop rotation, avoiding damage to seed stock, off farm disposal of diseased plants/bulbs, and most critical for those buying and selling seed stock is to be certain that it is free of disease.

The second half of the day was devoted to visual judging and taste tests of various strains, as well as recognizing some of the fine work that some of the 4-H kids have done by focusing on garlic this past year.

Production methods were also previewed in slide presentations by grower members Ron Bennett of Victor and Bob Yerina of Little Falls. Both talks addressed the basics of production and their various methods that have proven successful.

A special thanks to the staff at Oneida County Cooperative Extension for being our host and to the rest of you who made Garlic Day 1990 an enriching experience. Next year Jim and Diane Muscoreil, from Wilson, Niagara County, will be our host. Help is always needed. Western New Yorkers please give them a call. And to the Muscoreils, thanks for strengthening the Foundation by your support.

— Dave Bowne

A special note of thanks goes out to Frank Palermo, Elmer Dodds, Bob Yerina, Ron Bennett, Julie Rawson, and Rose Valley Farm for their contributions to Cornell's study with the Roswell cancer group on the effect of freeze-dried garlic on tumors in mice. It's always nice when we can work cooperatively with other groups as we explore the frontiers of garlic.

All medical information given is for educational and research purposes and is not meant to imply that garlic should be used in any situation in which the services of a physician are essential to the patient's well-being.

[Excerpted from *Carrots Love Tomatoes: Secrets of Companion Planting for Successful Gardening*, by Louise Riotte (Garden Way Publishing, pp. 69-70).]

Garlic (*Allium sativum*). Eldon L. Reeves and S. V. Amonkar of the University of California discovered garlic to be a powerful destroyer of mosquitoes, achieving a 100 percent kill of five species of California mosquito larvae by spraying breeding ponds with a garlic-based oil.

Monsignor David Greenstock of The Henry Doubleday Research Association in England found that an oil of garlic emulsion used as an insecticide killed 89 percent of aphids and 95 percent of onion flies.

Greenstock also fed garlic to chickens, mice and rabbits and found that it actually improved their health. He found further that the active principle of garlic, allicin, is a complex mixture of substances which are mainly allyl sulfides. These are produced by enzyme activity in the bulb, where their balance and effectiveness are dependent upon the presence of assimilable sulphur. This sulphur is produced in the soil by a number of microorganisms, principally certain tiny fungi that are unable to grow without the presence of humus. Organically-grown garlic, then, is believed to be most effective, because that grown with chemical fertilizers does not have enough humus to support the fungi.

Grow your own garlic and try this recipe. Take 3 to 4 ounces of chopped garlic bulbs and soak in 2 tablespoons of mineral oil for one day. Add a pint of water in which one teaspoon fish emulsion has been dissolved. Stir well. Strain the liquid and store in a glass or china container, as it reacts with metals. Dilute this, starting with 1 part to 20 parts of water and use as a spray against your worst insect pests. If sweet potatoes or other garden plants are attracting rabbits try this spray. Rabbits dislike the smell of fish, too. Garlic sprays are useful in controlling late blight on tomatoes and potatoes.

Garlic grown in a circle around fruit trees is good against borers. It is beneficial to the growth of vetch and is protective planted with roses and also good against grain weevils, when the cloves are stored in the grain. All alliums, however, inhibit the growth of peas and beans. Plant garlic with tomatoes against red spider. I have done this for three successive years with good results.

Garlic, Meadow (*Allium vineale*). Meadow garlic's very penetrating taste and odor give a bad taste to milk if eaten by cows, and the bulblets in wheat will spoil the flour. It's hard to eradicate because the little bulbs grow deeper and deeper into the soil with the passing years. If pastures or fields are badly infested, crop rotation is recommended.

But even wild garlic has a definite health value, and medicines derived from it are of value against high blood pressure and sclerosis.

Garlic Syrup

Herbalists use this syrup as an expectorant.

Bring one pint of water to a boil in a medium size pot with a cover. Remove the water from the heat and add two (2) ounces finely chopped garlic. Cover the pot and allow the mixture to stand ten hours at room temperature. Strain and discard the garlic. Add 4 tablespoons honey and 1 tablespoon vinegar. Then bottle and store the syrup in the refrigerator. The syrup is taken by the teaspoonful about four times a day.

From *Growing and Using Healing Herbs*,
by Gaea and Shandor Wiess
(Rodale Press, 1985)

Warm Garlic Dressing

Warm garlic dressing is especially good poured over steamed broccoli, cauliflower, artichokes, asparagus, and green beans. Heating the garlic extracts the flavor so that it blends with the oil to make an aromatic dressing. This is a quick way to change ordinary steamed vegetables into a more flavorful dish.

1 teaspoon thinly sliced garlic
1 teaspoon oil
1½ tablespoons red or white wine vinegar
(lime juice or lemon juice)

Place ingredients in a small saucepan, cover and warm over low heat for 5 minutes. The garlic will be pungent when done, and the vinegar, if used, will have lost its sharpness.

4-H Champions

The following young arlic growers received awards at the NY State Fair last September. We send you our congratulations and "Certificate of Appreciation" from the Garlic Seed Foundation. Roger Kline recently retired from Cornell Veg. Coops, was the stimulus for these kids to get involved. Now that Roger is no longer with this program, we don't know if it will be carried on. But, congratulations to:

Cassie Marshall, from Cincinnatus
Paul and Peter Freitag, from Sauquoit
Noah Blik, from Marion
Michelle Roody, from Port Crane
Patty Stang, from Perrysburg
Mike and Neil Helms, from Cortland
Andy Pullin, from Lyons
Erin Thomas, from Savannah
Stacy Clark, from Piffard
Chris and Sarah Merkle, from Cincinnatus
Julie Veen, from Oneonta

Considering Irrigation of Garlic?

Many growers have asked me about irrigation for garlic. Their feelings generally stress the high value of the crop and the importance of insuring their seed stock after several years of propagation. Fran Dellamano spoke on irrigation at Garlic Day, and his presentation was most informative. Fran's knowledge of irrigation comes from 30 acres of fruit using first overhead and now trickle irrigation. I will highlight his key comments.

First, irrigation is very costly, and the money is the easy part! Keeping a system working is a LOT of work, so before you consider irrigation, make sure all efforts have been employed to benefit from annual rainfall. For a sound understanding of the soil, refer to the USDA soil test maps for your county. Based on the soil type, the moisture holding capacity of the soil can be determined. This provides an approximation of the available moisture for a crop. Sandy soils understandably have less moisture-holding capacity than clay loams.

Next, one should evaluate how the moisture in the soil can be maintained and made more available to the garlic. The addition of organic matter through plow downs of rye, buckwheat, etc. can greatly increase the moisture-holding capacity of a soil. As the organic matter is decomposed moisture-holding capacity is reduced. Three-year crop rotation with deep-rooted alfalfa and clovers increases soil structure and permits successive crops of garlic to extend their root depth.

Excessive soil tillage, particularly with a rototiller, reduces available moisture by creating soil compaction at the tilling depth. Mechanically, despite the difficulty for small growers, chisel plowing will break up soil and permit increased root growth and access to available water.

Next, one should try to reduce evapo-transpiration of the water that is in the soil. This can be accomplished through weed control, proper spacing of garlic, mulching, and shallow cultivation in order to avoid root damage and excessive stirring of the soil surface.

Of equal or greater concern, particularly for garlic, is insuring that there is not excessive moisture, which displaces oxygen and increases the potential for disease. Soil

tilling may be necessary if soils tend to retain excessive water.

After these steps have been followed it is time to consider irrigation. The first question to be asked is when will water be needed? Data compiled over the years shows that in Central N.Y. state less than one inch of moisture is lost from the soil during April, May, and mid-June due to evapo-transpiration. During late-June, July and August the loss increases to 1.2"-1.3" per week. Daily humidity, wind and temperature on a given field will affect each individual situation.

Through the active growing months, April to June, available moisture in most fields will exceed the needs of garlic, if the soil structure permits root depth of 3-4 feet and sufficient organic matter is available to retain normal rainfall.

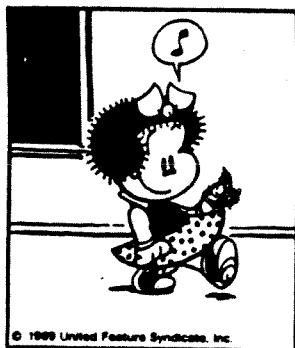
Roger Kline has expressed that it is generally felt that additional moisture 2-3 weeks before harvest, when the bulbs are forming, is not desirable. Depending on the strain of garlic, this leaves at most a 2-3 week period where irrigation might be needed.

Fran stressed that for most N.Y. state farmers it is the wet years, not the dry years, that are most damaging. He concluded his talk with a fine slide show and overview of various trickle irrigation systems. For specific information, consult Cornell Publication, *Trickle Irrigation in the Eastern United States*, Code 123 NRAES 4, cost \$3.00. Commercial materials are also available to plan a system.

Fran's presentation was thought-provoking and clearly challenged the need for irrigation when sound soil management practices are followed. As with many aspects of garlic production in N.Y.S., there is still much to explore. Please share your experiences or thoughts about irrigation through letters to the editor.

— Doug Bowne

NANCY



by Jerry Scott

NEWS from *HORTIDEAS*

For Higher Yields, Soak Garlic Cloves before Planting (*HORTIDEAS*, July 1990, 7(7))

A soviet researcher has discovered that pre-plant soaks (time not specified) in a solution containing magnesium sulfate or zinc sulfate (best concentrations: 0.01% and 0.1% (respectively) can boost garlic yields, apparently by causing faster shoot growth.

Reference: Abstract 3281, *Horticultural Abstracts* 60(5), May 1990, 379.

For Bigger Garlic Yields, Plant Bigger Cloves (*HORTIDEAS*, March 1990, 7(3))

This is old news to long-time garlic growers, but novices take heed: field trials conducted in New Zealand again have confirmed that the size of garlic cloves planted can significantly affect yields. In the New Zealand trials, yields increased linearly with clove weight (and the percentage of large-diameter cloves produced by big cloves was greater than the percentage produced by small cloves). So....each year, try to eat the small cloves and save the large ones for planting.

Reference: Abstract 9907, *Horticultural Abstracts* 59(12), December 1989, 1133.

Garlic vs. Southern Bacterial Wilt (*HORTIDEAS*, July 1990, 7(7))

Southern bacterial wilt, due to *Pseudomonas solanacearum*, infects many vegetables and flowers in the South-east. Typical symptoms are wilting in the day with recovery at night, progressing to death of plants. The bacteria overwinter in the soil, and can live in fallow soil for several years. Temporary soil acidification with sulfur has been recommended in the past as a control technique; a researcher in Indonesia recently found another, possibly easier, method: just add garlic to *Pseudomonas*-infested soil.

In the Indonesian experiments, "normal" tomato growth resulted from adding either a suspension of (presumably ground) garlic bulbs in sterile water (about half garlic and half water, by weight) or dry ground garlic bulbs to the soil around the plants. About one-third ounce of the suspension or about one-fifth ounce of the dry ground bulbs was added to the soil around each plant. Unfortunately, it isn't clear from the reference whether the plants were treated only once or several times during the growing season. Nevertheless, we hope some growers with wilt problems will experiment with garlic and let us know their results.

Reference: Abstract 3477, *Horticultural Abstracts* 60(5), May 1990, 402.

Great Marketing!

Here's an ad from a paper in the Finger Lakes.

Gene Shepker's been growing beautiful garlic for many years and this restaurant buys his crop and has a month-long festival.

Could this work for you?

• ROASTED CLOVES • GARLIC BREAD • GARLIC SHRIMP SCAMPI •

GARLIC BY THE TON



FROM MID-AUGUST TO
MID-SEPTEMBER EACH YEAR
WE HARVEST THE ENTIRE CROP
OF LOCAL GARLIC FROM
GENE SHEPKER'S FARM IN
CORTLAND FOR COOKING THE
AROMATIC DISHES
ON OUR MENU.

GARLIC FESTIVAL
NOW in progress!

"HOME OF NEW YORK STATE DINING"

RESERVATIONS:

• GARLIC CHICKEN • GARLIC BRAISED RABBIT • 40 GARLIC CHICKEN •

WHOLE ROASTED • GARLIC CRUSTED LAMB SHANKS

SPAGHETTI WITH GARLIC OIL • GARLIC ICE CREAM

Landmark Year

This has been a landmark year for garlic. With the convening of the "First World Congress on the Health Significance of Garlic and Garlic Constituents" we are seeing the first signs that the scientific community has recognized and is quite busy doing work on garlic. For growers and lovers of the stinking rose, this news is none too soon, but it surely is helping to document many discoveries that herbalists and past cultures have known for centuries: garlic is a great healing herb. Articles have been appearing in many of the monthly tabloids, and like the one in the November issue of *Organic Gardening* (whose cover shows a beautiful collection from our friends at Seed Savers Exchange), it is certainly helping all of us in our marketing by educating more and more consumers about the many values of garlic and leaves the rest up to us to provide the very best quality we can in our production.

One thing that has always seemed interesting to me is that in most studies of efficacy of health related studies they use processed forms rather than fresh. I will, in the future, try to do some research of my own to determine more specific guidelines on how to measure the differences between fresh and processed and what limits there may be to eating fresh garlic. In any light however, there seems to be growing interest in what we and others are doing, and this is one reason why all of us need to become more involved with the work the Foundation can and is doing to add to the growing volume of research.

All of us can try to be more scientific in our growing, not only by keeping better records of planting and harvest dates, planting depths and soil amendments, but also by pooling our information on varietal separations, storage conditions, and types of rotations we can really build our files up. At the winter gathering we will try to spend some time discussing this and looking for some volunteers to work on specific areas of study. The more that any of us learn and share, the more we all will grow.

A Clove a Day

Aflatoxin, a potent carcinogen produced by a mold that can grow on stored peanuts or corn, is a leading cause of liver cancer. New researchers at Loma Linda University have found that compounds of garlic activate enzymes in the liver that destroy aflatoxin. The researchers also found that garlic may protect against carcinogens in cigarette smoke, charcoal broiled meats and polluted air. They recommend that you eat no more than two cloves a day, however, because garlic also contains chemicals that can irritate the intestines, not to mention its effects on your social life.

Trials

The fall planting season, as extended as it was, was a challenge for all of us to deal with. As it worked out, I was able to wait long enough to get it all in and avoid any sprouting. I managed to get in all the variety trials and ran into a couple of things to share.

First, as a backup to using markers and mapping out the beds, I found it sensible to alternate where I could with a soft neck between the topset, which makes it easier to identify strains that are quite similar. Also, while planting a curiously shaped bed, much like a head of garlic, it worked to my advantage to plant the topset or rocambole as a perimeter in about as far as I could easily reach, and plant the interior in a soft neck seed that I wouldn't have to worry about taking tops off.

I still use pogo sticks (we're up to 2) to do the beds. Lou Harris in Waterloo, N.Y. did a variation and mounted a foot block on a good wooden stake, but either way it sure saves the backwork for those of us that don't use any type of a mechanized system. The deep 3"+ hole seems to leave some spacing for early root growth as dropped cloves seem to wedge into the sidewalls before they bottom out.

For a second year I am trying to work beds in rock dust and rye before planting season, and on some of the seed I am still encouraged by the use of *Aspergillus Oryzae* (as an inoculant on the seed), which is a naturally occurring, beneficial fungus that helps nutrient uptake.

In the mud I found the only way I could get on the beds to plant the holes was to wrap some carpet on a 2x8 length of wood so that my weight was evenly distributed and my knees could hold up.

Though some of these ideas we all try out are quite simple and makeshift, it may be of use to someone else who is starting out. Please send in your ideas and suggestions.

Further Freeze Drying

This year, in the freeze dryer at Cornell, we continued with our garlic study by focusing on weight loss in elephant garlic. Surprisingly, to me, the actual loss of moisture due to this type of processing was very close to that of the other top set or soft necks. This year our control batch of top set came in at 41½% of the pre-processing weight, and the three batches of elephant averaged 40.4%. This is close enough to indicate the relative consistency of moisture content in various *Alliums* is quite close. The only factor that can be deduced as a variable is the dryness of the samples due to harvest dates and storage conditions.

THE FIRST WORLD GARLIC CONGRESS

Part I: Observations

Some great scientific and medical minds from maybe all corners of the world almost agree on one thing, that sometimes garlic and its constituents might be good for you! Representing the GSF, I attended as one of two farmers, to learn more about the current medical research. It didn't take long to figure out what was going on at this gathering: it wasn't the "first" such meeting, it wasn't a "world" gathering, and I'm not sure what "Congress" means in this context. This meeting was financially sponsored by the Japanese pharmaceutical company, Wakanaga, and co-sponsored by the USDA and Penn State University. \$200-\$300 million are spent yearly by consumers purchasing garlic pills. This is BIG-BUCKS business. Wakanaga makes the product Kyolic, available in the U.S. in different sizes and colors. Wakanaga gives Kyolic to researchers to use in their work. Many different scientists—in many places, working at different levels, with different organs, and different diseases—use Kyolic. Call these medical researchers together (and I assume this meant pay their way) and ask them to report on their work with Kyolic and call it the "First World Congress"! Get the idea?

To be fair about this, there were other participants at this meeting: chemists (including our friend Dr. Eric Block from SUNY Albany), demographers (scientists who look at population factors like diet), other pharmaceutical companies promoting other pills, nutritionists connected with university and clinical research, and some "G-men" from the Food and Drug Administration (FDA). All in all, 40 participants from 15 countries and 4 continents attended, along with lots of press—food editors, nutrition columnists, medical journals, newspapers, wire services and technical/trade tabloids. This was news at the end of August 1990. The presenters were 90% male, most of the press was female, and all were an amazing collection of colors, shapes and sizes.

The Japanese have long used garlic as AGE: Aged Garlic Extract (the garlic is minced, then aged 20 months). This stabilizes and concentrates the beneficial chemical constituents. This "congress" wasn't talking about the garlic you and I know and love; here we're talking about the molecules, chemical names, symbols, and structures. The researchers seek to understand the hows and whys, the relationships of these chemicals and the body, its organs and diseases. Everyone attending knew and believed that *something* happens when you eat garlic. The body responds, but who knows what levels and which of the hundreds of chemicals or thousands of combinations is the trigger? That's the quest! Only a small amount of the clove is allicin (2-10%), and it's hard to study. Some compounds live only fractions of seconds, 80% of the reactions are over in 3-4 minutes, some of these compounds are stored at -70 C, and many secondary compounds are also formed. When that clove is crushed or pressed, there's

tremendous biological activity and it takes special machines, processes and people to keep it all together.

So, speaker after speaker presented their work: first we do this, then we do that, now we feed Kyolic-AGE at these levels, the control group gets this, we observe that! Subjects are used, in most cases mice, rats, dogs, chickens, rabbits, and monkeys. Experiments are also done in the laboratories on virus, fungal, and bacterial cultures. Humans are also used, but it is very complicated and difficult to isolate specific cause-effect relationships. Thus far, our society doesn't accept the use of human guinea pigs, i.e., induce cancer in a man or woman and study the effect of dietary Kyolic-AGE. What happens when someone discovers something special when studying a rat? How do you equate that research to humans? There has been some work treating patients that already suffer certain ailments or indicators, but these are difficult to monitor.

Here's a list of the diseases that these modern medicine men and women have concentrated their work on: blood and its properties including cholesterol, stress reduction, the prevention/reduction/halting of cancer growth and induced tumors, the antiviral/antifungal/antibacterial and anticryptococcal properties. It was an impressive list, but each and every speaker ended their presentation by saying, "We have these results. We're not sure why, and this needs more research."

It was interesting for me to watch how these scientists reacted to each others' work. After each presentation there was an opportunity for questions, and certain papers were ripped apart for reasons of methods used, conclusions drawn, or variables not considered. Some papers couldn't be defended; the work wasn't good enough. There were also other agendas than the Wakanaga Kyolic-AGE. A German pharmaceutical company was in attendance trying to get recognition of their product (KWA) and research. This company also uses the AGE of Chinese garlic—their claims are that the Chinese garlic contains more allicin than other garlics; therefore, theirs is a more healthful product. These Germans aggressively attacked the research methods, interpretations and conclusions of Wakanaga, Inc. At one point, the "neutral" moderator threatened that he'd "throw out of these meetings anybody with dissenting arguments." Most of us took this on the light side, but so much for the peer review process at the First World Congress!

Looking back, I have the following impressions:

* My first is of Washington, D.C. and the incredible distinctions between the rich and poor. I was able to stay with my friends Pat and Leo (from Rochester) and ride the Metro bus with Leo in the morning when he went to work. Parts of that town look like Berlin, 1945, with hundreds of homeless street people. In the next block, the streets are



First World Congress (continued)

paved in gold and enormous government monuments of marble. The rooms at the Willard Hotel were on special at \$150 a night, the lunches a bargain at \$60 a plate (they did let me sit in back and listen to the speakers) — beautiful etched glass, stylish ladies, and delicious coffee!

* There were no reports of research that had failed. Obviously, Kyolic-AGE works for everything, every time. But the real issue to me became fresh garlic vs. the pills, nutrition and health maintenance vs. pharmaceutical products. Here's something interesting I learned: everything can kill you if you eat enough of it. When it comes to raw garlic, the magic number is 5½ pounds—eaten at one time, by one person, it would kill 50% of us! I once made this pizza. . . .

* I met some very nice and interesting people. One was a young chemist from Hawaii, BYU campus, researching the native culture's medicinal plants (there's no native garlic in Hawaii). After talking for several minutes, he told me that he grew up in Lyons, NY and his parents live 2 miles from this farm. Small World! I made a special friend with a very lovely young woman, Pat De Stasio, who works for the Christopher Ranch marketing garlic. This is the largest family-run operation in Gilroy, California, with several thousand acres producing 50,000,000 pounds! In the sea of dark suits, Pat and I were clearly the only two working-class people (with dirty fingernails), and we quickly became good friends (we've even exchanged T-shirts). We talked a lot about the growing techniques between the East and West and about varieties. When Christopher Ranch *experiments* (and they have tried our varieties), they put out a measly 15 acres! Pat has worked her way up from the packing sheds to her marketing position—a very hard-working woman. I've invited her to join us at our Garlic Day and she's invited me to Gilroy's 3-day festival, when 150,000 people invade their town—all with bad breath!

* Lastly, it was an exciting trip, to be with individuals whose work I'd read over the years, and in a few cases, educate them in the production of garlic. Since my return, I've been eating more and more—it not only tastes great, it's good for you. I can also report that a new study is about to begin by the Food and Drug Administration, under contract with the National Cancer Institute. It's a 3-year, \$2 million research study in direct response to the claims of Kyolic and KWAI and other companies pushing pills.

The GSF has copies of the abstracts of these talks available (see order form) and the complete proceedings will be published as Garlic in Biology and Medicine, available in 1992. Make your \$150 check payable to Nutrition International Company, 6 Silverfern Drive, Irvine, CA 92715. So, why didn't I write about the research? That's "Part II: Nothing But the Truth" in the next exciting issue of the *Press*!

(D.S.)

Treasurer's Report

Doug Bowne, Treasurer, resigned that position last fall. The GSF needs someone who is responsible with money, can keep some easy books, and make regular reports to the *Press* to serve in this capacity. Currently, the money is in the Norstar Bank in North Rose, NY, but can be moved to any location convenient to the new treasurer. Please contact GSF if you are interested. (D.S.)

Money transferred from Albany Co. Savings Bank	
January 1991 (account closed)	\$1,005.78
Money Deposited since Sept. 1990	
From dues, sale of literature, T-shirts and keepers	1032.15
TOTAL INCOME	\$2,037.93

<u>Expenses</u>	
Fall Newsletter Typing	29.96
These Mailing Labels	22.10
Postage	84.67
TOTAL EXPENSE	\$ 136.73

BALANCE (prior to this *Press*) \$1,901.20

Thanks!

Many, many of you sent in your Dues money (check financial report) in response to last Fall's request. Some of you have a "Green" Date on your label. This will be your last Newsletter, as you're 2 years behind. Good-bye.

Cornell/Roswell Park Cancer Research

Many studies have been carried out with experimental animals indicating that certain sulfur compounds in garlic can inhibit the development of tumors induced by carcinogens. Selenium, which is an essential element, is also known to protect against cancer when given at high levels in the diet. An experiment being conducted jointly by Dr. Clement Ip of Roswell Park Cancer Institute and Drs. Gilbert S. Stoewsand and Donald J. Lisk of Cornell University will examine the effect of feeding selenium-containing garlic on the inhibition of mammary cancer in laboratory rats treated with carcinogen. The purpose is to determine whether the selenium-containing garlic is more effective than the regular garlic in cancer protection.

Garlic was grown at Cornell University in Ithaca, NY in a medium containing peat moss, perlite and fertilizer along with added selenium in the form of soluble salts. The garlic was harvested and peeled, then freeze-dried at Cornell Agricultural Experiment Station at Geneva, NY. The control garlic, kindly donated by New York State garlic growers, was handled the same way.

Diets containing the control or selenium-enriched garlic will be fed to rats that are given a single dose of dimethylbenz(a)anthracene for the induction of mammary cancer. The 8-month experiment is expected to start sometime in the winter of 1990. Hopefully, this study will provide further information on the chemistry of sulfur and selenium compounds in cancer prevention.

Director's Notes (From a comfortable chair by the warm fire)

I must first apologize for the long period of time that you have not heard from us. It's been very difficult for me to concentrate on my work these past weeks. I feel angry and frustrated that this country can so easily justify going to war and the unavoidable slaughter that all war becomes. I know that this fuzzy cat on my lap doesn't care about wars in distant lands, and maybe so for some of you, but it affects me very deeply.

Our country keeps a standing army and is quick to justify its use. We equate strength and security with missiles and bombs—it makes us powerful, like the neighborhood bully. We must find other ways to live as a world community. There's never enough money for housing, schools, health care, senior citizens, roads/bridges and the important wars against drugs, disease, AIDS, and poverty ... but there's always money for wars among countries.

We've had a light snow cover this year so far at Rose Valley, but hoping for more soon. We planted less garlic this year to make room for new crops and others in the marketplace. This winter the GSF will be spending some time getting itself in order as an official non-profit agricultural organization and thereby qualify for some of the benefits we deserve. Here are some things to pass along:

- Anyone interested in locating and purchasing beautiful old books related to farms and farming, herbs and horticulture? Keith Crotz puts out a nice little catalog, in addition to growing garlic. Send for a free copy: The American Botanist Booksellers, P.O. Box 532, Chillicothe, IL 61523. (Note: there are very few books on garlic!)
- Equipment—it's one of the most common questions asked. Last week, at the "Hort Show" in Rochester I saw a tractor-driven transplanter that can plant as close as 6"! It still requires orienting each clove to be planted and 2 people to do that, but ... contact Mechanical Transplanter Company, 1150 S. Central Ave., Holland, MI 49422-1708 (616-396-8738).
- John Gunning (5270 W. Valley Rd., Chimacum, WA 98325) called looking for a device that could trim roots from bulbs. Any ideas? He grows about an acre and is looking to cut his labor. He said he'd write up his operation for us, which I'm sure we'll find interesting. He gets a 1 to 12 ratio! (1 to 9 is my best.)
- Got any slides? We're still looking for contributions of how YOU grow garlic. Doug Bowne sent me some from the Canadian trip. I'll make a copy and return them to you. Promise!
- Yes, David Douglas and the Australian film crew came to the farm and took pictures and asked lots of questions. Some real nice blokes spent a lot of time and money to spend 30 minutes with a camera that will probably end as 5 minutes in the movie! They promised to send a copy for us to show at our garlic events.
- Dominic Antignano is also in the video business—using his Cam-Corder to record his operation out on Long Island. I never knew the stinky bulbs were so photogenic!
- Stan Crawford (GSF member) from the El Basque Garlic Farm, Box 56, Dixon, NM 87527, sent a great marketing idea. They've produced a beautiful poster (16" x 17", multi-color) with artwork by Glen Strock of

garlic growing, garlic braids and field work. In the center is a nice concise write-up of how they produce their crops. This is a great idea and I'm sure will help them sell garlic. I don't know if they sell these to the public, but I'll find out and see if we can have some at our events.

- Pat Reppert from the Shale Hill Herb Farm, Saugerties, NY, reports that they had 350 people attending their garlic festival and served 250 meals! Pat and I are trying to see if we could piggy-back her celebration with the GSF 1992 Garlic Day. We've never had one in the Lower Hudson, and it seems obvious that Pat's doing a great job. Those people down there must like this stinky stuff!
- Garlic Day '91—We're still looking to go to Niagara County in Western New York. Contact Jim and Diane Muscoreil (716/751-9213) to help out. They live in Wilson, NY.
- Doug Urig (3257 DeRussey Rd., Collins, OH 44826, 419/668-2834) is looking for #40 of garlic seed to spring plant. Please contact him directly.
- Beautiful vegetable posters! High quality posters, 16" x 16". The vegetable quartet: tomatoes, peppers, onions and egg plants. Printed on heavy stock, perfect botanical detail, and loaded with information. \$15 each (\$60 set) + \$4 S&H. These are the same folks who put out the equally wonderful periodic tables of vegetables, fruits and nuts, and desserts. Available from: Food For Thought, 1442 A Walnut St., Berkeley, CA 94709, 415/653-8841.
- A new garlic Pill: KWAI! Direct from Germany, Europe's #1 Brand! Chinese garlic, processed into a pill (take 6 a day), equivalent to 30 mg. of the real stuff—with no "social drawbacks"! Free sample. Just call 1-800-TRY-KWAI. It takes a while to get them, so be patient. I tried them in my spaghetti sauce, but couldn't taste them! But since finishing my sample box, my hair's grown back in, my blood pressure and cholesterol levels have come down, my elbow doesn't ache anymore, my dog's been catching rabbits, and my breath don't stink! See article in this *Press* about World Garlic Congress.
- Also—In late July there will be some very interesting and special individuals in our area who have been contacted to see if they could meet with us. Phil Simon and Mike Havey work in the USDA allium breeding programs with Jim McFerson (*Garlic Press*, Winter 1990). We'd like to think about a summertime family picnic (don't this sound nice in January?!) on someone's farm or a nice park maybe ... late July.

In finishing, I'm pleased to tell you that garlic seems to be a hot literary subject, and not just in cookbooks! This fall, Francis Pollock worked on rewriting the garlic entry for *Rodale's Encyclopedia of Organic Gardening*. Ron England, from Filaree Farm (Olanogon, WA 98840) has taken his beautiful catalog and is making it a book! This is really special—written by an experienced farm, for farmers! And coming soon, Stan Crawford, from El Bosque Garlic Farm, will be writing on how he grows and markets his bulbs. We'll review these as soon as we can get them and let you know where to get one.

I hope that you are all well and enjoying the quiet, restful, thoughtful winter season and have peace in your hearts. Happy trails—you'll be hearing from us soon on our Spring Fling '91.

In Peace,
David

SPRING FLING '91

SATURDAY — APRIL 27 — GENEVA, NY

We are very happy and proud to announce that **John Swenson**, garlic (and Allium) authority and enthusiast, will be coming from his home in Chicago, Illinois to be with us. John, who's a collector, not farmer of alliums, has studied these species, travelled the world in search of them, and is now writing some scholarly works on this stinky little bulb. John's loaded with information and stories and slides to share. He's been to the Soviet Union in search of origins of *A. Sativum*.

Those of you who received seed material from the Seed Saver's Collection (that Ron Bennett organized several years ago) will be interested in meeting John, because he supplied the material. John's featured in the Nov. 1990 issue of *Organic Gardening* cover story, "Allium Underground."



We are planning a morning of presentations at Jordan Hall at the Geneva Experiment Station on topics yet to be finalized. Any suggestions? For lunch, a special treat, a new restaurant in Geneva, "Moretti's," and the proprietor Michael Moretti an alliophite himself. Every selection on his menu contains garlic, and he's invited the GSF to his beautiful restaurant. So, from the Station we'll head there for lunch and John Swenson will be our After Dinner Guest Speaker.

KEEP THAT DATE — We'll have a separate mailing soon!



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