

GARLIC SEED FOUNDATION  
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ROSE, NY 14542-0149

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*House Hearings on DSHEA and Supplements*  
*Disease Management: Fusarium, Penicillium, Botrytis*  
*The Olive and Its Oil: Part II*  
*How They Grow Garlic in Troy, NY*

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

# The Garlic Press

FALL 1999



#36

## The Issues of Food Supplements, the FDA's Control, and Personal Choices

*In a little-noticed decision handed down last January (1999), the U.S. Court of Appeals for the District of Columbia Circuit rejected the US Food and Drug Administration's policy of squelching virtually every attempt to inform customers about the value of dietary herbal supplements in preventing disease. Now it could be said that the agency protects us from the snake oil salesperson, but it is better understood that it protects the status quo mega-buck pharmaceutical giants and their billion-dollar sales each year by keeping their hoofs on the necks of any "alternative" products and claims. Personally, I think I'm able to make my own decisions on what I put into my own body. (Not that I don't trust big-biz or the AMA) and what I consider a drug.*

*Back in 1994 the FDA set 9 standards that any claim must pass to be legal and permitted in advertising pertaining to a particular product. The bar was set so high that no one cleared it, as the FDA intended. This court case removes that bar.*

*Maury Silverman is a long-time friend from the D.C. area, who attended medical school and has been a researcher and an advocate of Herbal/Supplement information for many years. (He also learned to plant the garlic on this farm!) He first wrote on this issue in Press #15, and we present this update on this issue in which the garlic is a major player. (D.S. com.)*

### LEGAL AND REGULATORY

## Commentary on House Hearings on DSHEA and Supplements

by Maury Silverman

The House Government Reform and Oversight Committee, on March 25, held a hearing on FDA and food supplements focusing on interpretation of Dietary Supplement Health and Education Act of 1994 (DSHEA) and the FDA proposed rule on structure/function statements.

The new commissioner, Jane Henney, M.D., stated that implementation of DSHEA is among her priorities with an "overall dietary supplement strategy" by the end of this year. Issues such as the disease definition, boundary lines between foods, supplements, and drugs, and acceptable "authoritative statements" by other scientific bodies for health claims provided by FDA Modernization Act (FDAMA), are in focus and discussion. FDA proposals that would limit information in the marketplace for supplements are matters the new commissioner needs to face and resolve. The Hearing began a constructive dialogue in view of her Senate confirmation statement on her belief in dealing fairly with all industries in her

purview. Dr. Henney clearly recognizes and accepts the goal of respecting the desire of consumers to make informed choices using dietary supplements. She repeated her statement that the Food, Drug, and Cosmetic Act and DSHEA provide "sufficient legal authority" to protect public health when there may be a real problem in the market. As such, most in the industry hope her leadership may dissolve FDA's past rhetoric to lead the public to believe DSHEA compromised its regulatory authority. Implementation of Good Manufacturing Practices (GMPs) that DSHEA requires is also among Dr. Henney's stated goals.

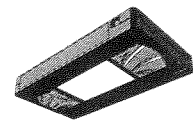
Congressman Dan Burton (R-IN), the committee chairman, clearly communicated with many of his colleagues in their questions the concern that FDA rule-making not violate the spirit and intent of the dietary supplement act.

The issue of FDA's proposed definition of "disease" received considerable attention. In April 1998 FDA proposed new regulations to clarify limits

to structure-function claims for dietary supplements. In these proposed regulations the Agency expanded the definition of "disease" to include various conditions that did not include "damage" to a body organ or system—a component of the previously existing definition in the FDA act (See story in *HerbalGram* #43, page 26.)

Dr. Henney stated that the FDA-proposed definition of disease comes from reference texts, and that she had not come to a conclusion in this matter. James Turner, A Washington attorney and long-time food activist, speaking for Citizens For Health, a consumer group in Boulder, Colorado, stated the recognized definition of disease at the time DSHEA passed Congress should be held; that the FDA proposals negate the structure/function provision of the law, and that there is potential for litigation over FDA's not providing a legal base to change the definition of disease from one centered on objective damage of an organ to one defined by symptoms.

Only from the GSF/Rose  
INSTRUCTIONAL VIDEO:



Learn from the man who  
taught the rest of us:  
Bob Yerina!

NOW IS THE TIME TO  
STRING BRAID THAT GARLIC!



Rob McCaleb of the Herb Research Foundation and a member of the presidentially appointed Commission on Dietary Supplement Labels mandated by DSHEA, testified that FDA ought to abandon its campaign against supplements, and should abandon its proposed definition of disease as *any* deviation from normal. As such, "thirst is a disease and drinking water a drug under the proposed rules," he said. Mention of disease in third party literature and "consumer intent of use" were additional concerns expressed with the desire that FDA not suppress truthful and nonmisleading literature in the marketplace. Of importance here is that FDA not remove incentives for medical and health institutions to do more research on nutrition and botanicals. Ed. Croom, Professor of Pharmacognosy at the University of Mississippi, spoke of the need to match the public's desire for use of botanical products to improve health with the need for more laboratory and clinical research in basic health sciences utilizing existing traditional knowledge and experience with botanicals across cultures from long history of use.

Annette Dickinson, Ph.D., of the Council for Responsible Nutrition, stated that supplement companies are trying to do the right thing but are not helped by FDA. She urged that FDA would do well to follow Department of Agriculture's example of the first organic agriculture proposal (where USDA rescinded proposed rules that would have allowed irradiated foods to be sold as "organic" after significant public protest), and pull the structure/function proposal in view of an overwhelming critical public response to

the FDA docket (over 100,000 letters written in protest). She also urged creation of a dietary supplement advisory committee at FDA.

Actress Raquel Welch responded after her testimony to Congressman Henry Waxman (D-CA) that the desire of the public is not so much for "claims" but for information that is helpful to educate the layperson about the link of nutrition and food supplementation to health. She asked that FDA be careful not to be "killing a flea with a cannon" by expanding the definition of disease to the point that virtually all structure/function statements would be discouraged or outlawed, eliminating an entire category of consumer information.

Industry attorney Scott Bass gave specific examples of how the language of the structure/function proposals by FDA try to change the language of DSHEA by putting the word "normal" into section 6 when Congress kept it out. He notes that FDA would, in effect, make useless the disclaimer provided by the law for valid information FDA may not have the expertise, resources, or motivation to review. Recent First Amendment cases such as *Washington Legal Foundation and Pearson v. Shalala* were cited as protectors of both public interest and public health.

Professor Margaret Gilhooley of Seton Hall Law School, member of the Commission on Dietary Supplement Labels, held to a restrictive interpretation of the spirit and letter of the law. Professor Gilhooley noted that, in her opinion, "the FDA's criteria are too narrow, that the FDA proposal needed to be revised to restrict supplement

claims that relate to the maintenance of bodily condition and functions closely associated with the occurrence of disease and beyond the ability of the consumer to evaluate." She also stated that, in her view, "in addition to the other disclaimers, consideration needs to be given to stating on the label that there is "no significant scientific agreement" to support the claim "if, indeed, that is the case. She concluded her remarks by indicating that she felt DSHEA is an enigma with ambiguous provisions which can be interpreted in various ways.

Daniel Kracov, attorney for Pharmanex, Inc., testified with a summary of the Pharmanex/Cholestin™ decision. The example outlined is congruent with protecting the whole herb in the marketplace and the safer synergism of all its components in contrast to one active ingredient. It had been mentioned by Professor Croom how industry has long looked for "domestic chemical results" in service to our health with single chemical substances, the magic bullet. This vividly illustrated how DSHEA has begun to fill a gap to differentiate the nutritional model and the pharmaceutical model for natural and synthetic substances, respectively.

Overall, the theme of the hearing was the need for quality information for consumers about natural products with minimal inappropriate response to industry by FDA that may come from exaggerated concerns or fears inappropriately manifested.

*Maurly Silverman is a consultant working with the dietary supplement industry.*

[Reprinted from *HerbalGram* 46, Spring 1999, pp. 27-28.

*It is not really an exaggeration to say that Peace and Happiness begin geographically, where garlic is used in cooking.*

— X. Marce Boulstin



## GSF ORDER FORM



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<i>GROWING GREAT GARLIC</i> (Engeland)				X \$12.00 = _____
<i>ONIONS AND GARLIC</i> (Louis Van Deven, 114 pgs.)				X \$6.00 = _____
<i>ELEPHANT GARLIC GROWING GUIDE</i> (Weaver)				X \$15.00 = _____
<i>STRINGBRAID YOUR TOPSET - VIDEO</i> (S&H included)				X \$25.00 = _____
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\* Members - all prices include postage and New York State Sales Tax

\* Non-members - please add 15% for shipping and handling

\* PLEASE - U.S. FUNDS ONLY

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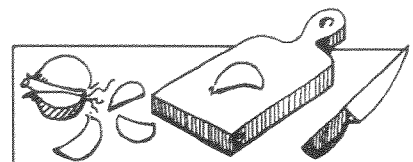
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Amount: Available \_\_\_\_\_ Minimum Order \_\_\_\_\_

Brief description of crop: \_\_\_\_\_

**SEND IN QUICK!**

**Recipes**  
by Chef Anthony



**SPAGHETTI AGLIO, OLIO E PEPERONCINO**  
*Spaghetti with garlic, olive oil and red hot pepper*

Ingredients

- 1 lb. spaghetti (Barilla or DeCecco)
- 4 cloves of garlic sliced
- 3-4 tbsp. of good extra virgin olive oil
- 1 each fresh hot pepper
- ¼ bunch of fresh parsley chopped at last minute
- 4 tbsp of bread crumb toasted (optional)

Description

Bring to a boil a 12 qt. pot of salted water. Cook the spaghetti al dente (see cooking time on the pasta box).

Meanwhile saute the garlic with oil at low heat until the garlic starts to get color. Add the hot pepper and turn the heat off. Add 2-3 tablespoons of water (from the spaghetti) to avoid burning the garlic. (You also need water to keep the spaghetti from sticking.) When the spaghetti is ready, toss it in the garlic oil sauce, add the parsley, and serve.

I like to sprinkle the spaghetti with some bread crumbs. It keeps pasta and garlic-flavored oil together.

Note: It is good to use a fresh hot pepper because it has a nice peppery flavor that is not only spicy, but you can substitute it with a dry red pepper flake.

% Daily value 2000 Calorie Diet		
Total Fat	6.1g	0.09
Saturated Fat	0.8g	4%
Cholesterol	0 mg	0%
Carbohydrate	62.5g	21%
Protein	11g	22%
Vitamin A	13%	
Vitamin C	36%	
Calcium	6%	
Iron	32%	

**ROMBO ALLA CREMA D'AGLIO**  
*Turbot with a garlic-cream sauce*

Ingredients for 4 servings

- 4 pieces 6-8 oz. turbot or halibut or fresh cod
- 2 heads of whole garlic, roasted
- 2 tbsp. of butter
- ¾ cup of cream
- 4 sprigs of thyme
- 1 anchovy (optional)
- 2 tbsp of lemon zest and parsley chopped together
- 1 cup fish or chicken stock
- flour
- salt and pepper

Description

Blend the garlic and the cream together. Set aside. Salt and pepper the fish and lightly dust with flour.

Saute at medium heat the fish with butter and thyme until both sides are lightly brown. Remove part of the burned fat and add the anchovy, the cream-garlic sauce and fish stock. Finish in the oven at 400°F.

Serve the fish with the sauce on top, sprinkle with the parsley and lemon zest.

It is good to serve with a soft or grilled polenta. If the sauce is too thick, add some stock or water. If it is too liquid, reduce it on the stove.

% Daily value 2000 Calorie Diet		
Total Fat	23.1g	35%
Saturated Fat	12.1g	61%4%
Cholesterol	123mg	41%
Carbohydrate	9.1g	3%
Protein	44.1g	88%
Vitamin A	20%	
Vitamin C	14%	
Calcium	18%	
Iron	12%	

**Director's Notes**



I think that in some small way I had waited for it to happen for 27 years. Each time a car whizzed by, the thought would click over in my mind. How many of the thousands of vehicles that sped by this farm on this narrow, quiet country road did I wait for? For this road has a bend — a gentle 60°, and then it's very flat and very straight for ¾ mile before it bends another 60° again, past an apple orchard.

This farm begins where the straight road does as well, and people drive by very fast. They have killed my dogs and cats, countless woodchucks, raccoons, rabbits, skunks and deer. And they have tried to kill themselves a few times as well: once into a telephone pole and then my cornfield, once into the ditch for a roll over into a hayfield. And once two elderly neighbor ladies left the icy road and plowed head-on into my compost piles: "Oh, it was so much fun ... it felt like a giant marshmallow."

Last Friday evening about 7:00 I was finishing my harvest for Saturday market. I was thinking about calling Gary about the Garlic Festival, answering the flood of mail from the recent *Organic Gardening* garlic story, and maybe "catching" the local Fish Fry. I was working in the field to the west of the barn. The dill was pulled, banded and in the bucket. I can see the road from this field. I was grabbing giant handfuls of basil plants and banding them together and enjoying that heavenly smell. I heard both the truck and the truck's radio at the same time—both loud. I had just lifted both full buckets and started to walk to the shed when I saw the brown truck, an S-10 or Ranger, whizzing by at 60 or maybe 70 or ... I can never tell.

I heard it hit the first apple tree, and by the time it hit the second I was at a full run ... then I heard the third collision. 911 took my call within 40 seconds and by the time I was in my Bronco II and driving to the curve, my pager went off: "Rose Rescue and Ambulance, MVA on Covell, ¼ mile north of the Wayne Center-Rose Road. Medic at the scene."

What is it about the calmness after the storm? What is it about that eerie silence after the violence that is so intense? The only sounds I could hear were my heart pounding in my chest, the truck's radio playing, and the wipers swiping across a glassless windshield. I ripped off the truck's door to feel this man's chest for breath and neck for pulse. He is alive, but at that moment in that quiet orchard, this man and I are not alone. I have a very real sense that something else is present, maybe watching, maybe behind me, maybe above ... maybe a deja vu or spirit ... but something.

I do as I am conditioned to do: turnout gear and trauma gloves, grab my jump bag and blanket and start my assessment, make mental notes—the time, no seat belt, deformity of steering wheel, strong breath odor of

alcohol, severe head trauma, mechanisms of injury, take the vitals, amount of blood and write on my arm. The Rose Fire Company is always quick to respond, and within minutes I'm joined by another medic, then an Assistant Chief, then the pumper truck, rescue van and ambulance, with crews. We do as we've been trained, practiced, and done many times before. Mercy Flight (air ambulance) is in the air as we "load and go" for the 12 minutes to our local hospital. There are 4 medics in the back of our rig: 2 I.V.s established, suctioning airway, oxygen administered, full assessment, hemorrhaging controlled, and radio contact with reviewing hospital. The helicopter awaits us, but the patient is first stabilized in the E.R.—"snowed," "tubed," x-rayed, lungs suctioned and ventilated, another I.V. and more drugs. I join the paramedic in the chopper to ventilate (breath-force oxygen into the patient's lungs) for the flight to a trauma center in Rochester. We lift off over the dark farmland of Sodus and 12 minutes later we land in the bright lights of a high-tech/high-rise medical complex.

Six gown-clad figures rip our patient from the ass-end of that chopper, my hands replaced by a machine, and they take him into the bowels of this mega-plex. I follow and stand in the back as they work. The initial 6 are joined by more, and now 15 highly trained people are working on this man who came to rest in the orchard. I look down at my dirty workclothes, the soil from the field now mud within my gloved hands, the sweaty bandanna still around my head. Feeling very self-conscious, I slip away and grab a cup of coffee, join the pilot on the helipad, and watch the ambulances roll in and roll out.

The return flight to Sodus was quiet. It was after 11:00 p.m., 4 hours since the accident. The patient now had tubes in his head to drain the fluids and pressure. He was attached to a ventilator for oxygen, blood transfusions, and more I.V.s for fluids and drugs. The Emergency Department folks weren't giving him much of a chance.

My friend Amy picked me up at the hospital and drove me home. It was a relief and joy to return to this farm and my 4-legged friends and their love. We walked out to the field and brought in the buckets of dill and basil. I felt scattered and disorganized, barely able to eat my midnight dinner of pasta with olive oil and garlic, or to concentrate on market at 5:30 that next morning.

My wait was over. Sunday, a week: This morning the 33-year-old male patient, with the advice of doctors and consent of family, was removed from life support and died immediately.

Please, don't drink and drive.

(D.S. com)



## Editorial: "Putting It On the Table"

As most of you are very well aware, the *Garlic Press* does not always follow the rules of publishing. We beg, borrow and steal, be it a joke, photo, news story or press release. We give credit whenever and wherever we can and truly appreciate all contributions. No money is made at this venture, but stealing is not honest, and we have waited for years for the Gestapo to knock on our doors and drag us to jail for our crimes.

We get very little response when we ask for contributions or assistance, so when some little "garlic goodie" comes drifting by, we grab it and stuff it into a special drawer. When that drawer is full, we gather all that is there and, in the dead of night, after our regular day jobs, we craft each *Press*. It takes many hours. Our lives are as busy as yours.

We don't want to justify or testify. We wish we had the time, money and credentials to call up the creators of *BC* and *Garfield*, the AP or publishing houses and negotiate for their approval or consent. But that ain't gonna' happen. Nor could we afford what the artists and writers justly deserve. We've often wondered what would these folks think or do if they ever saw their work in a *Press*? Would they be glad that we appreciate their labors so much to give them space in our small xeroxed ag-rag, or would they call their lawyers?

We had a situation in the last *Press* that needs attention and clarification. When we received a copy of Alice Wikaruk's project on garlic (that she completed for her Horticulture

Certificate from University of Guelph, Ontario, Canada), we saw it as a source of copy for the *Press* and we pulled several sections of that paper in #35. Because we did not include Alice's Bibliography, Dorothy, who types and formats the *Press* omitted the citations in the text.

One such citation was a piece written for the *Press* by John McMahon, Associate Professor of Classics, Department of Foreign Languages and Literature, LeMoyne College in Syracuse, New York. John is a longtime member of the GSF and from time to time shares his wealth of information on "garlic and antiquity." One particular piece, "Not Just Another Pretty Scape," was printed in *Press* #21 in 1994.

Alice researched all issues of the *Press* for her project, used John's work, and credited him for such in her bibliography. Our error of omission caused John to write to us and remind us of our obligation of integrity. We take full responsibility: David for the submission error, and Dunk for the editing error.

We're going to try to continue with the GSF and *Press* as best we can for as long as we can. But we know that one day a letter shall arrive or a car will pull into the driveway, and all this shall end. Til then ... read on!

*David and Dunk*



## ALLIO-PHILE

❖ **Bill Sterling**, Marketing Director for Wakanaga of America Co., Ltd., reported that U.S. consumers spend about \$200 million each year on garlic supplements, and his company has about 75% of that market. Wakanaga makes the Kyolic products from garlic that has been aged 18 months and deodorized before processing.

❖ **Kazuko Sakamoto**, Penn State University researcher, found that DATS (diallyl trisulfide) a compound found in the ordinary garlic clove, slowed the growth, or killed, human lung tumor cells grown in a culture. Deodorized garlic products typically do not contain DATS.

❖ **Companion** Internet data to accompany "13 Ways to Fight the Fumes" in this *Press*: [www.farts.com](http://www.farts.com) has jokes, fart of the day, and icons to choose a wide selection of tasteless garbage and [www.fartcd.com](http://www.fartcd.com) is the place you can order a special CD for your listening enjoyment, with sample cuts.

❖ **Catalog Vendors**: if you want to be listed in *Gardening by Mail*, a *Sourcebook*, contact Barbara Barton, Tusker Press, POB 1338, Sebastopol, CA, 95473, 707.829.9189.

❖ **Onion and Garlic Diseases**, a compendium from APS Press, 1.800.328.7560, is an excellent reference journal for your library: 1999, 70 pages, 100 color and 23 black and white photos and illustrations, ISBN 089054-MO-1, \$37 + S/H.

❖ **Festival Organizers**: could we ask you to take a few moments and drop us a line about your 1999 festival and plans for 2000? We like to report the activity in the *Press*.

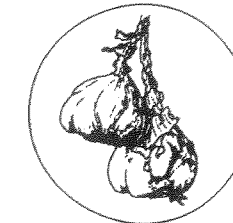
❖ **Apologies** to Bill Gates for reporting (Allio-phile, #35) that his net worth was \$58,000,000,000.00. Since that issue, he has done very well and is now actually worth \$90,000,000,000.00. Mr. Warren Buffet ranks #2 with \$36,000,000,000.00. The world's Billionaire Club lists 465 people, with the top 200 having a neat worth of over \$1 Trillion. The youngest Billionaire in the top ten was Michael Dell, who at 34 had \$16,500,000,000.00, and spots #8-#11 were all of one family at \$16,000,000,000.00 (each)—the heirs of the late Sam Walton of Walmart fortunes.

❖ **Wanted**: Video on growing Elephant garlic—start to finish. Send to: Nick Morza, 5707 N. 10th St., Phoenix, AZ, 85014. (Send one to GSF/Rose, too!)

❖ **10 Mothers American Bistro** (Burlington, VT) will indeed offer a discount to GSF members! After you're seated, notify Joe Pacquette (Chef/Operations Manager) and he will amend your bill. Hey, thanks Chad and Cindy, that's very generous of you and the Menu looks great!

— Dunk and I hope to see you all at some festivals this fall. 'Til then, Peace. (D.S. com.)

## La Mia Cucina



### Garlic Hate and Love: What is it about garlic and food?

Hi! I am a 31-year-old Italian chef. I moved to the United States four years ago from a town in Bergamo, Italy, 50 Km northeast of Milan. I have lived and worked in New York City, California, and Boston (MA) during these past four years. Before this, I worked as a chef for eleven years in Italy.

One of the first things I noticed when I moved here was the strong flavor of garlic in almost every pasta dish. Every Italian restaurant serves pasta covered in chopped garlic, or tomato sauce with garlic. And roasted garlic—it seems that is an authenticity, a typical dish made daily in every home.

Well, let me tell you the way I see Italy and Garlic. Every region of Italy has its own "typical" food, some item or dish or way of preparation, but each region's food can relate to each other. In this case, let us divide the North and South of Italy. The North of Italy has the coldest region, so you can find more heavy and warm food. Examples are braised or stewed meats, risotto, polenta, cream, butter, cheeses and many different dishes that have influences from France, Germany and Austria. The South of Italy has more ingredients that work well in hotter temperatures. Examples are fish, vegetables, tomatoes, olive oil, and fresher, younger cheese like Mozzarella. It is more common to find garlic in this area of Italy than it is in the North of Italy.

As we know, in history, people from the North of Italy immigrated to France and Switzerland. People from the South of Italy immigrated to America. This is probably the way garlic arrived in America, with the Southern Italian immigrants in the 1900s. It is interesting to see how now, especially in Italian-American Households of America, the love of garlic has increased and become famous.

In the North of Italy, regarding garlic outside of the kitchen and restaurant world, people—meaning friends or known person of the northern regions—hate garlic. They

hate the taste, the flavor, and the bad breath it leaves in their mouths. Even though I am from the North of Italy, I do love garlic. I began to like it when I started working in the kitchen. I appreciate the flavor and the aroma it gives to each dish. In fact, it is an ingredient that you can find in almost every kitchen in the world. But as a chef, I also understand how to use this powerful ingredient. Its strong flavor can really cover all the other flavors and the result is a garlicky dish that is going to leave you with a smelly and spicy mouth, without having been able to appreciate the main ingredient of the dish.

I have a few stories about this that are good examples of how garlic is not used in the North of Italy. My mother, who does all the cooking at home, absolutely can not use garlic to cook with because my two brothers will complain and not eat the food she has prepared. She tries to sneak it in, but it never works.

Last summer, my brother and his girlfriend came to visit me in California. His girlfriend kept having really bad culinary experiences. She hates garlic (of course), but every time we went out to eat at a restaurant or cafe, everything that she ordered was covered in garlic—the pizza, the pasta, the vegetables. We had to go home and barbecue steak for her to be happy.

I think the funniest story happened a few years ago at my wedding party in Rose. You should have seen the faces of my family when David Stern brought over a huge tray of roasted garlic and placed it on the table. They said, "Do they eat it like that???" So these stories are a few examples of Italian experiences that are not as "authentic" as people like to think.

So, my suggestion is to use garlic in moderation. Something that I do is to saute the whole clove in the beginning, just to scent the pan and the fat in it. Then remove the clove before or even after adding the other ingredients. This will help create a dish with balanced flavor.

[See next page for Recipes]

[Some 15 years ago, as I switched from grain to vegetable farming, I watched Amy, a young neighbor woman, growing and successfully selling garlic at market. As Amy grew, other interests pulled her away from the soil, and I purchased her seed stock for \$125 and started down the commercial garlic highway. Amy moved away to college and on to her new life, which included her marriage to Alberto, the Italian Chef who wrote the piece you just read. When they were back home visiting this past summer, I approached Alberto and asked if he'd consider writing for us, and we're pleased that he's agreed. He will also take a question or two each Press, so address them to GSF Rose. We'll forward them on to Alberto in Boston. D.S. com.]



spring it stimulates soil life, keeps the soil soft and moist, and adds nutrients and organic matter to the soil as it decays.

Early in the spring of the third year we broadcast natural fertilizers, like K-mag, bone meal, compost, and corn gluten meal, based on the results of a soil test taken the previous season. Weeding is begun early in May and continues until mid-July, and is all done by hand, due to the close spacing of the rows and the presence of mulch. An irrigation system, one of the most important considerations in growing quality garlic, is set up so it will be ready for use when it is needed. Garlic must not be allowed to dry out at all, or it will produce smaller bulbs.

We specialize in hardneck garlic, which produces a curly stalk called a "scape" bearing a bud-like spathe on its end in late June. Generally speaking, the scapes need to be removed in order to maximize the size of the bulbs produced. They may be removed as soon as they appear, but we wait until they make one complete circle before snapping them off so that they may be harvested for food. We eat some, sell some to a manufacturer of garlic products, and donate the rest to the local food pantry. If left on to mature, the scapes will eventually straighten up and burst the spathe to reveal a cluster of small seed-like things called bulbils, using up nutrients from the leaves which could have gone to the development of a larger bulb.

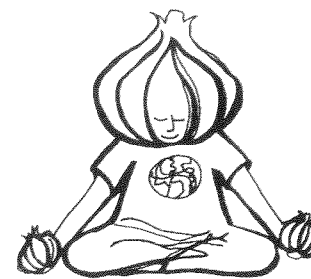
In mid-July we start checking the plants for maturity. There are several ways to determine when the crop is ready to be dug. For one thing, if you dig a bulb, you should be able to easily see the bulging of the cloves without peeling it. Also, you can leave some scapes on as indicators of maturity. The bed is ready for harvest when the scapes are pointing straight up but before the spathes have burst their wrappers. With some varieties, especially rocamboles and silverskins, if you peel back the bulb wrappers you should be able to see some pink on the clove skins. Another indication is that the leaves will have begun to turn yellow and dry up. I've come

to believe that, at least on our farm, the most reliable method is to look at the bottom leaves. When the lower three leaves on the plant are completely dried up, the bulb is mature. You can dig it when there are only two dead leaves, but research has shown that there will be more allicin in the bulbs if the plant stays in the ground longer. At four shriveled leaves I've found that most bulbs are overmature. Their bulb and clove wrappers split open and they don't look good or store well.

We undercut the garlic by replacing the blade on our single shank subsoiler with a half disc (curved side forward) and running this down the center of the bed so that the blade goes under the bulbs. It is set at a slight angle to horizontal so that the soil is lifted as the blade runs under it and is then dropped back into place behind it. This loosens the soil so the garlic can be pulled easily out of the ground. The garlic is pulled until we have a handful, and then the loose bunch is laid in the middle of the bed. This is continued until there is a row of bunches down the whole bed. Most of the garlic is then loaded on a flatbed trailer and taken to the shed, where it is hung, one bulb at a time, in the spaces between the wires and slats of vertically hung snow fencing for curing. However, some strains of garlic produce bulbs that are too big to fit in these spaces. These varieties are tied in bunches, and then the bunches are tied to each other, and these strings of bunches are hung from rafters to cure.

After two or three weeks, when the tops have completely dried down and there is no sign of green or moisture in them when cut off an inch from the bulb, the garlic is taken down and the tops are cut off with pruners and the bulbs are put in 40 lb. onion bags. The next step is to cut the roots off with scissors and grade the bulbs according to size by passing them through a V-shaped sizer, and finally they are ready for market.

After the harvest, the garlic field is rototilled, and a mixture of vetch and rye is planted. Winter comes, and the cycle begins again.



## OUT OF MY HEAD

Bob Dunkel

### Another Season



Any of us who has grown in this business over the years knows we all have our ups and downs. For some, it's year-to-year, or season-to-season, but the only constant is change. Like with weather, our minds prefer to see systems, lows or highs pushing around us, and sun and rain. Well this year was a real roller coaster ride for me. First, it was to be my last year on the land Elmer and I have worked and shared, and maybe it was the good thoughts and wishes of you who called or wrote that helped old Ken, the landowner, to give us a last minute stay of execution just this month. So now we can gear up for another planting season. Waiting during harvest for the right moment, I grabbed a big bunch of German hardneck and went for a face down with Ken. From the get-go, he wasn't too nice, and it took a lot of honey-coated "thank-yous" and "we're sorries" just to have him say he might think about another year. To sum it up for me, I'd finally decided to confront my nemesis, look him in the eye, tell him I understood there were problems, humble myself, and finally, let him know we'll leave the fields all trimmed up and tuned and fields mowed. A month later he decided to let us go on a year-to-year basis. It's been hard for me to learn not to walk away and give up and leave with an attitude, but time has a way of leading you on to realize that when something breaks, you'd better fix it then (not before and not maybe later).

So on we go ... Softnecks were bigger and kept better this year, my middle-of-the-road rocamboles came on strong, and my seemingly reliable Continental hardnecks were short and small. Fall shallots outdid the spring planted ones, and yes, we were dry. That's another issue — At our Spring Fling at Cornell-Geneva, we heard Angela (our Ph.D. candidate and garlic graduate student) tell us that 65% of what we end up with is in the clove we plant — more in nature than nurture — and this year you sure could see it. We expected smaller cloves of course, we qualified in our 4-county area for drought assistance, but a lot of the varieties came through fine (better than expected). Kind of like the land, you'd best learn not to give up and to keep plugging, and things just end up having a habit of working out. Not our best year, but sure not our worst!

### PLANTING CLASS 2000

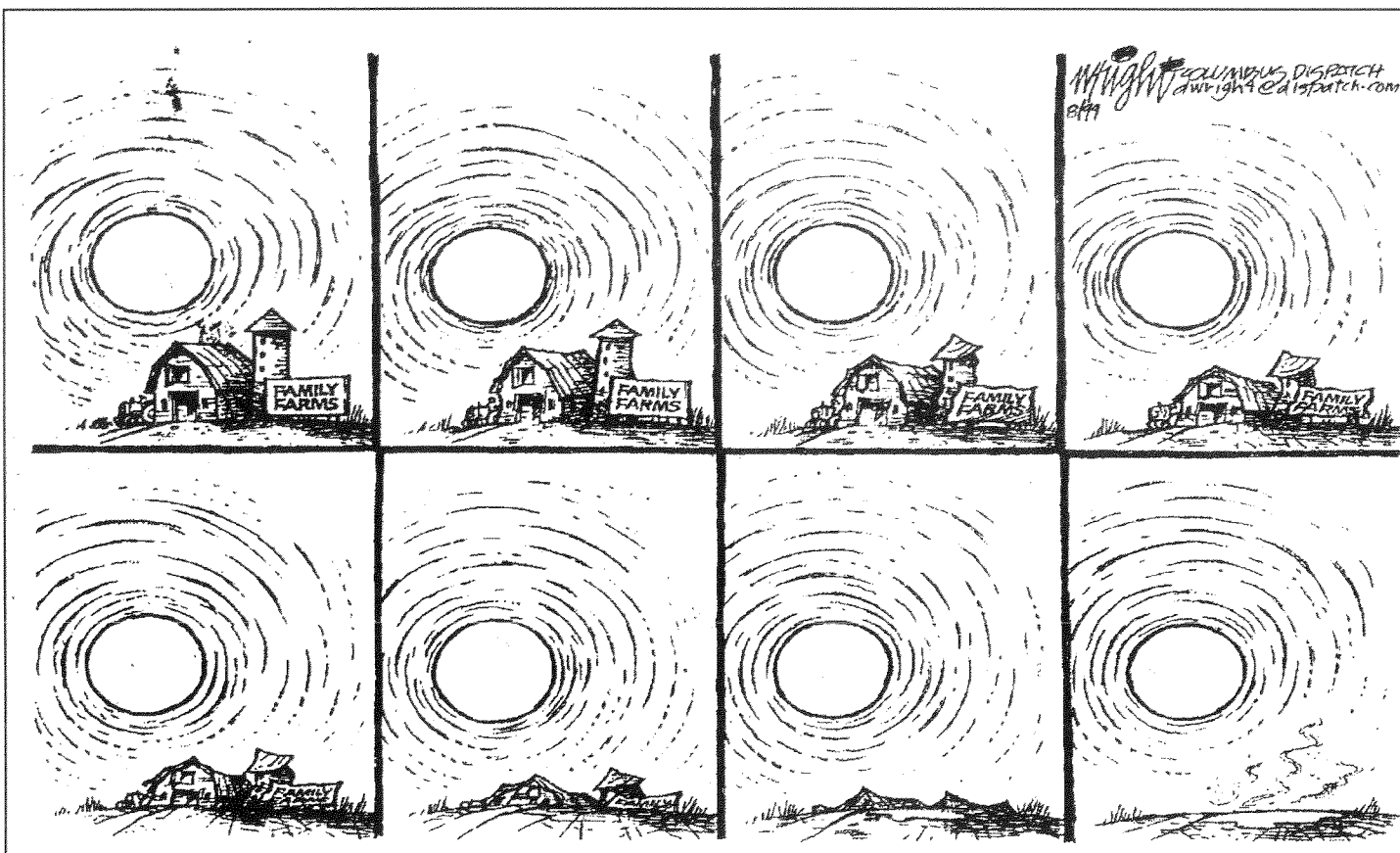
Hurry my friends, the time is near  
To mark the rows in creeper gear,  
To walk or drive as straight may be  
And plant the crop of the century!  
Buckets of seed so fat and wide  
Still in the bulb till you divide  
As soon to planting as can be done  
In shorter days from sun to sun.  
An autumn song you'll hear them sigh  
As they pop apart and greet your eye.  
Then you'll decide which ones'll sleep  
Tucked in their beds a finger deep.  
Just give them room and a happy heart;  
Make sure to plant them a fist apart.  
Then let them rest and dream away;  
Those roots will weave both night and day.  
That keeps them safe from planting's wrath;  
All winter long you'll hear 'em laugh.  
Then one last thing you must realize.  
Whatever you do don't fertilize,  
'Cause nitrogen they'll sure not use  
'Til springtime fires that greening fuse.  
Then once or twice till middle May;  
Side dress them and move out the way  
And then they'll grow till day is long,  
So learn to sing their solstice song.  
For as you see the dancing wane  
The bulbs begin their glad refrain:  
"Dig me when the time is right.  
Treat me gentle, lay me light.  
Dry me out in shadow's breeze.  
I'll keep on growing for centuries!"  
(B.D.)

**"Do not eat garlic or onions; for their smell will reveal that you are a peasant."**

— Cervantes, *Don Quixote* (1614)

Membership in the GSF is \$15/1st year, \$20 for 2-year renewals, and includes this newsletter. All submissions for *The Garlic Press* should be sent to the editor, Bob Dunkel, 2079 Washburn Rd., Stanley, NY 14561. (716-526-5779 - phone evenings only, please). As always, all medical references should be taken for educational purposes and any recommendations should not preclude consulting with a health practitioner. DO NOT REPRINT ANY MATERIAL WITHOUT WRITTEN PERMISSION.

DEADLINE FOR NEXT ISSUE — 10/1999



## Disease Management: Fusarium, Penicillium, Botrytis

by Dr. Ron Brammall

Interest in garlic production continues to increase in Ontario. In recent years, we have seen growers planting more acres and we can expect to encounter more diverse problems as production moves into larger areas. In the past, losses were often attributable to post-harvest diseases and pests, but there are increasing concerns about field production problems occurring in Ontario.

The first serious disease encountered in Ontario was Green Mold disease, caused by the fungus *Penicillium hirsutum*. This disease may occur when the cuticle of the seed clove is damaged during breaking seed bulbs and subsequent handling. This fungus is a wound parasite that rapidly invades damaged tissues causing either a rotting of the clove after planting or death of the plants soon after they emerge in the spring. The cloves develop sunken, brownish to tan colored areas on their surface that are usually covered with a white to green to brownish powdery mold. The fungus decays the clove, removing food reserves that would otherwise be used by the developing shoot and often kills the plant directly.

In stored garlic, cloves may shrivel within the bulb and become covered with the powdery spores. Infections often appear to start at the bottom of the clove and work their way upward to the tip. This disease is first visible in the early spring.

Affected areas of the field may either show stunted weak plants or plants may fail to emerge entirely. Often the plants die suddenly when they are several centimeters tall. Cloves that are dug up may show the green growth of the fungus upon them. Green Mold disease can be especially severe when garlic is planted into light, dry soil.

Experimental work showed that mulching these soils in an attempt to conserve soil moisture greatly improved the emergence and survival of the crop. One of the most important causes of seed clove damage was the use of several different types of bulb cracking machines. The use of hand labor to crack bulbs appears to have lessened the occurrence of this type of injury.

The fungicide Rovral was also registered for use as a clove dip treatment to control Green Mold. It should be noted, however, that the use of this fungicide does not appear to be required if the seed cloves are undamaged—an important consideration for those growers attempting to produce an organic crop.

Post-harvest handling of the seed bulbs during curing or drying is also important to ensure good seed quality and freedom from diseases. Various approaches have been used to cure garlic seed with some of the larger growers using tobacco bulk kilns to dry the crop.

Growers in Ontario have found that forced ambient air during the later part of the summer will cure the crop in about 10-12 days. The actual time required would depend upon a number of different factors, including how much root and scape tissue is attached to the bulb.

To help ensure a good cure, growers have reported that garlic should not be piled more than 3' deep during a drying process. If drying is not performed properly, garlic may be damaged by several different fungi, of which the most import appear to be Botrytis and Aspergillus.

Botrytis has been identified as causing a post-harvest decay in Quebec and Nova Scotia and appears now to have occurred in some Ontario crops. Cloves within the bulb showed a shrunken,

hard white decay that was sometimes covered with grayish areas of mold. Often, the problem is noticed after the bulbs have been sent to market. The plants appeared to be healthy in the field. It seems that infection may occur after harvest because of poor curing conditions.

In two separate incidents, *Aspergillus alliaceus* caused post-harvest losses to Ontario. Aspergillus damage is similar to that caused by Botrytis and causes a dense mat of moldy growth between the clove surface and the clove scale. This white mold has dark to black sclerotia (the overwintering bodies of the fungus) embedded within it, and the affected cloves mummify and become very hard.

Botrytis and Aspergillus appear to grow on the scapes, bulb scales and cut roots after harvest, and then grow into the individual cloves. Adequate drying and trimming procedures should assist in preventing the growth of the pathogens.

Care must also be taken, however, to ensure that garlic is not exposed to too much heat during drying or a physiological disorder called waxy breakdown may occur. Waxy breakdown can render an entire crop unmarketable. In one instance in 1995, waxy breakdown actually occurred prior to harvest because of elevated soil temperatures in the field.

White rot, caused by the fungus *Sclerotium cepivorum*, is a severe disease of onions and garlic, and will likely be encountered with greater frequency as our acreage expands. The disease causes a rapid and severe decay of the above and below ground portions of the plant. The disease is favored by temperatures of 10-20°C and is reported to slow at greater than 24°C.

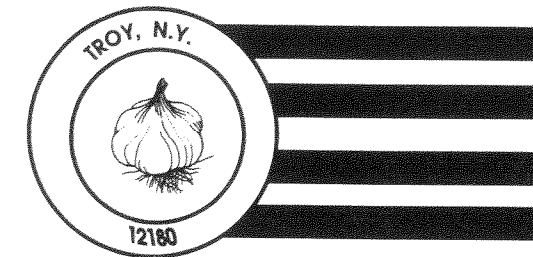
Hard, round, black structures, about 0.5 mm in diameter are usually found within the white mold or upon or within the decayed tissues. These structures are the overwintering bodies of the fungus and are released into the soil when the plant decays. These bodies are extremely long-lived within the soil and may persist for as long as 7 years in the absence of the crop.

In 1991, garlic mites were first identified on two lots of garlic grown in Ontario. The surface of the clove below the clove scale showed irregular shaped sunken white to tan colored areas or a roughened pebbled appearance. There often appeared to be a dusty material on these cloves in the vicinity of the lesions and on the clove scales. This "dust" was found, through microscopic examination, to be millions of the mites, *Eryiophyes tulipae*.

These mites are too small to be identified by the naked eye alone. They appear to be responsible for the pebbling damage which is often seen in stored cloves and for some of the lesions which later become infection sites for the Penicillium Green Mold fungus. These mites also occur on grain crops (i.e., wheat, barley, rye and corn) which may be the possible sources of the infestations. In the United States, garlic mites have been controlled by either fumigating the garlic seed with methyl bromide before planting or by treating the seed with sulfur dust.

Fusarium foot and root rot, sometimes also called Fusarium Wilt, appears to be increasing in frequency in the field in Ontario. The fungus, *Fusarium oxysporum* f. sp. *cepae* causes this disease. This is a soil-borne fungus, occurring naturally in certain fields. The disease is reported to be favored by high soil temperatures (28°C or 82°F), so it tends to be noticed in July near the time of harvest.

## HOW THEY GROW GARLIC IN . . .



### Growing Garlic on Hillside Organic Farm

by Grace P. Reynolds

This presentation is intended to give you an overview of what's involved in the growing of garlic at Hillside Organic Farm, Troy, NY.

We have three, one-acre fields under cultivation, which are in a three year rotation. The first year begins with the turning under of a legume crop, such as vetch and rye, which was planted the previous year a few weeks after garlic harvest. This is accomplished by chopping the crop with a brush hog, applying limestone if a soil test has indicated it is needed, and rototilling it all under. In the early years when we were building up the soil we also applied greensand and colloidal phosphate at this time.

A couple of weeks after incorporation of the legume we plant a cover crop of sorghum sudangrass, which remains on the field all season. Whenever it reaches about 3' in height it is chopped down to 1-3" with the brush hog. This stimulates tillering and more root growth, which results in the production of more organic matter. The sorghum-sudangrass will take up a lot of the nitrogen that was put into the soil by the legume that preceded it, preventing leeching. It will die over the winter, providing erosion control for the soil and a large amount of fibrous organic material, which will help to condition the soil.

The second year, depending on the weather, another legume, like alsike or red clover, may be frost-seeded into the rubble of the sorghum-sudangrass in March, or ryegrass may be seeded, or the field may be left idle until June. In June whatever is on the field is turned under along with as much aged manure as we can obtain.

After a couple of weeks to allow for decay, a crop of buckwheat is sown. The buckwheat blooms in about 5 weeks, at which time it is tilled under. It is succulent and does not need to be chopped before tilling.

In mid to late August we begin the process of making raised beds. First we mark out the beds with the tractor tires. Then we pull a single-shank subsoiler behind the tractor, so there is one channel down the middle of each bed. This loosens some of our clay subsoil, allowing for better drainage and root penetration. Then we make the raised beds by using hilling discs behind the tractor wheels and a wooden drag that levels the beds. After this we spread bone meal and K-mag on the beds by hand, broadcast oats over the field, and pull

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*Instead of talking to Grace for an hour on the telephone and transcribing my notes, we steal this from the proceedings of the NYS Vegetable Growers Conference last winter (1998-9). Grace has been a member and strong supporter of the GSF for many years, and we've watched her grow from ¼ acre to where she is now. Grace has worked with the chemists who study the garlic and its sulfur compounds (Press #32). D.S. com.*

the bedder over the beds again to cover the seed and incorporate the fertilizer.

The selection of seed stock is very important in garlic production. There are many different strains of garlic, and some will do better than others under different circumstances. I recommend that you try several strains from local growers, or at least from growers in a climate similar to yours, and see what does best for you. We trialed over 100 strains before we selected the strains we now carry and, in fact, are continuing to trial new strains in order to constantly improve the quality of our product line. We have found that the hardneck strains do the best for us.

In late September we begin the job of preparing the garlic for planting. This is called "cracking," and consists of peeling or slitting the bulb wrappers so the bulb can be split in two, and then the cloves are separated and cleaned of loose wrapper, as it is the cloves that are planted. At the spacing we are now using at Hillside, it would take about 1800 lbs. of cleaned seed to plant an acre. This is a very time-consuming job. Along with some friends, we enlist the help of disabled and elderly people to get this work done, and they enjoy it immensely. We make a monetary donation to the institution involved based on the amount of work completed. The people benefit, the institution benefits, and we benefit. I highly recommend that you look into institutions for the disabled and elderly for help in this portion of your labor.

In October we plant the garlic cloves right into the living oats. This is done with a planter that is made up of a coulter, which cuts through the roots of the oats; followed by a shoe, which opens a trench, a pipe that discharges behind the shoe, which serves as a seed chute; and a covering wheel. The shoe is specially designed to slide under the soil and lift it instead of pushing it to the side, so closely spaced rows are not pushed out of place. There is a homemade device on the hub of the tractor wheel that makes a click every time the tractor moves ahead 4-5". I stand on a platform behind the planter, dropping the cloves in one at a time whenever I hear a click. I feed two planters at once, which are offset so that I plant two rows going down the bed and the alternate two rows on the way back up, so that we end up with four rows 7-8" apart on each bed. The cloves are dusted with fine bone meal and kelp meal just prior to planting, to stimulate root growth and possibly help prevent disease. They are planted at a depth of 2-3".

Immediately after planting, we spread composted leaves on the field. This usually amounts to only about 1/3" of mulch, but we apply more when we can get it. This small amount doesn't give much winter protection, but it is loaded with microorganisms and acts as an inoculant to the soil. Winter protection is provided by a hay mulch, which we buy in big round bales and roll out onto the beds. Also, the oats cover crop dies at hard freeze, adding its insulating value and helping to prevent eroding and heaving of the soil, and in the





## 13 Ways to Fight the Fumes

A Companion piece to "Tailwinds", Press #33



Several years ago a copy of a Swiss study came across this desk that compared human olfactory sensitivity to such things as garlic ... and dog farts! It wasn't easy for me to contain my outrage, for those of us who love the garlic and live with dogs truly know they are not to be paralleled in *any* way! Nothing, other than rotting flesh, can compare to a canine faux pas of ill winds.

I called my Vet friend, Leslie Lillifarter, D.V.M. (Cornell Univ., 1981) who assured me that dogs (and cats) pass the gas for pretty much the same reasons as humans. Thus, in keeping with our quest to get to the bottom of this topic, I share Dr. Lillifarter's suggestions in hopes there might be humane connections:

- ① Work it out in a walk: Exercise helps gas move out of the intestines, and a bowel movement will release yet more gas.
- ② Oy! Soy!: Some pet foods are 25% soybeans, which are packed with protean, but some animals find hard to digest. Try changing pet foods.
- ③ Switch brands slowly, if you notice a sudden change to the worse in air quality after a change. It takes a while for the bacteria in the colon to adjust to a new diet, so do it gradually, over a week.
- ④ Stash the trash, 'cause garbage can radically change the intestinal flora. (An Immediate Halt to All Dumpster Diving" was one of my personal 1999 New Year's Resolutions, which included McDonald's.)
- ⑤ Go on pig-out patrol: Does the beast like to feast? Gluttons can get gas and the overload can back up the system causing the "fermenting farts."
- ⑥ Watch out for supplements (vitamins, minerals) that can stimulate bacterial action and the you-know-whats.... Try a balanced diet prior to supplements unless recommended by your Vet.

⑦ Divest of Dairy, 'cause Fido doesn't produce enough of the enzyme lactase, which is needed to digest the lactose found in dairy. If Fido needs a splash in his/her morning coffee, try lactose-reduced milk.

⑧ Try a little culture - like yogurt, which has all those digestion-friendly bacteria and Rex will enjoy the taste as much as the cat litter box.

⑨ Charcoal works just as well on dogs as humans for the same reason, absorption! So a small amount 1/8-1/4 teaspoon daily (depending on size of dog) should work, but it will also absorb nutrients, so no more than a few days at a time.

⑩ Calm it with "Cur-tail," an anti-gas product sold by Vets that contains an enzyme that helps break down the food similar to "Bean-o" for us 2-legged methane producers.

⑪ Reduce competition at mealtime if pets are fed in different locations, which reduces the insecure behavior of gulping down supper. As a result, air is ingested, which can come out both ends of Rex.

⑫ Extend the mealtime, which does the same thing as #11 - less gulping of air. One suggestion is to place a tennis ball in the food dish that gets in the way and requires more maneuvering and time. I can confirm that this really works, having put a tennis ball in my cereal this morning and it took 47% more time to eat the same amount of corn flakes!

⑬ "End the Bends" by raising the food dish off the floor, which means less neck flexion, less gulping of air, and hopefully less gas. I'm going to try this tonight and put my dinner plate on top of my dresser at head height. Fido might prefer the couch or kitchen chair.

Well, I think that you'll agree that this information really moves us ahead on the gas issue, and we thank Dr. Leslie Lillifarter for her contributions and the authors of *The Doctor's Book of Home Health Remedies for Dogs and Cats*, from which I freely stole with both hands. (D.S. com)

### Peel, Chop, then Hold ... the Garlic!

Dr. John Milner, Professor and Head of Penn State University's Nutrition Department and Graduate Student Kun Song discovered that how you prepare garlic for consumption has a lot to do with how healthful it is. As most of us know, if you want 100% of what garlic can give you, peel the clove and pop it in your mouth, chew it well, and swallow. Those less brave put the peeled clove in a blender with OJ - then down the hatch! And most of us know that if you can smell the garlic cooking on the stove, you're volatilizing the compounds that give the kitchen a nice flavor, but not much to your body.

What Milner and Song discovered was that you could cook garlic and retain the cancer-fighting properties by merely letting the freshly peeled and chopped/crushed garlic stand for 10 minutes before cooking. Why? Those 10 minutes allow an enzyme to start a chemical reaction that produces allyl sulfur compounds that are critical to garlic's anti-cancer properties. If the garlic is heated, roasted, "nuked" immediately after crushing, the enzyme is deactivated by the heating process. We thank John and Kun for their good work. (D.S. com)

#### Microwave Recipe

from Vern Dickten, Warwick, NY

#### VERN'S POTATO, ZUCCHINI DELIGHT

- 3 medium potatoes (red or white-skin on)
- 1/2 medium onion (chopped)
- 1 small zucchini (cut in 1/2 inch cubes)
- 1/4 cup chopped parsley
- 6 cloves of garlic, or so (crushed)
- salt, pepper - seasoning to taste
- olive oil (approx. 1/2 cup or more)

Microwave whole potatoes until just done, cut into 1/2 inch cubes - place in mixing bowl.

In microwave dish add 3 tbs. olive oil, chopped onion and crushed garlic. Cook until translucent. Add to potato cubes with balance of oil and raw zucchini. Mix together with seasoning and parsley and return to microwave dish. Cook only long enough to heat completely, then serve.

The disease causes a water-soaked decay of the roots that flatten out like ribbons. They may become pink to reddish in color, although another disease called Pink Root Rot, caused by the fungus *Phoma terrestris* (also known as *Pyrenochaeta terrestris*), has similar symptoms. The bottom of the bulb (i.e., the basal plate) usually develops a wet to dry decay where the roots emerge from it. A pink to white mold is often seen on the decayed tissue.

The plants may appear to die back prematurely, wilt or show distorted bent growth (do not confuse this with the natural curling or bending of the scape in hard neck varieties). Diseased plants pull easily from the ground and leave most of their roots in the soil, while healthy plants are difficult to uproot. This is a difficult disease to control with fungicides.

Avoid planting garlic in sites where onions have been grown in the past. Use only healthy, vigorous planting stock. Practice a 3-year crop rotation to allow the fungus populations to decline in the soil. Do not allow machinery to move from affected fields into clean fields. The fungus may be transported in adhering soil to cause new infestations.

Although some cultivars in other parts of the world have been reported to be resistant to the disease, there is not yet any information available about how our local strains affect the clones we are using.

In many fields, growers complain of patches where plants show poor or delayed development. Some have suggested that these poor spots may be the result of low soil pH levels. This may be the cause in some of these cases, but not necessarily all. During the earliest part of the spring when garlic is growing slowly, it is sometimes attacked by soil-borne fungi such as *Pythium* sp. and by soft rot bacteria, especially if insect feeding has done any damage to the seed cloves. This appears to be especially true when the weather is cold and wet for long period or if seed has been planted excessively deep.

Garlic may also, at times, display symptoms of various viral infections. These may include mottling of the leaves or stunting and twisting of the leaves and an inability of new leaves to break out of the older sheathing leaves as they grow. Viruses are often problems in crops that are vegetatively propagated, such as garlic.

We do not yet have virus-free planting stock to use and there is no control for these diseases.

Fortunately, viral problems appear to be of minor importance and usually only appear when the plants have been stressed in some manner. It is also important to note that exposure of plants to the herbicide, 2,4-D, or injury from the stem and bulb nematode also cause similar distortions in leaf growth.

Our experience continues to be that garlic is a promising crop for Ontario growers. Most of the diseases of importance in our area can be minimized or eliminated by ensuring good seed piece quality and that the harvested bulbs are properly cured.

*[We appreciate that Dr. Brammall agreed to let us re-print this excellent paper that he presented at the Ontario (Canada) Horticulture Conference last winter in Toronto. Dr. Brammall can be reached at: Brammall Phyto Tech Inc., P.O. Box 48, Venessa, Ontario Canada, 519.426.0066 (Tel.), 519.426.5931 (Fax). D.S. com]*

### MAPPING THE NEXT/THAWTS

#### The Magic of October

A defining moment  
to find the ties that bind us  
that weave through and round us  
encircling the globe.  
The transparent glow  
of wrapper leaves  
silhouetting the pulses  
of purple fired garlic beneath ...  
A new century at the gate  
a guardian, shepherd, ferryman  
that the guiding west winds heed.  
Balancing on now, was, to be  
to see through tomorrow's transom.  
A need to reexamine the seed  
to understand the need of us in them  
no wholesale dumping of leftover cloves  
'Tis  
an alchemical process  
changing dreams to gold.  
A purification and ritual cleansing  
of our seed stock  
a setting of our clock indeed!  
We launch into that cool morning  
our finest cloves.  
And into that dawn  
of yet another century  
the shape shifting is on.  
One two many  
the many in one  
wrapped in its finity  
to a dying sun.  
Ever yet never the dying is done  
black holes exploding  
birthing young suns ...  
So rejoice and be glad  
of the path before us.  
Tread softly through  
the hazing phase of winter  
feel  
the ground rupture  
the first full light  
as you climb into the sun  
leafing forth  
the first scent of spring!

(B.D.)



[Note: the following was accidentally omitted from Press #35. It was to follow the Donald Kidd piece on growing garlic in Selma, NC. I felt it was so important, I made it a separate item, and it got lost. It's that time of year, so here it is ... D.S. com]

## Lessons Learned

"This was the year we were to make the big jump and bought 800 pounds of Elephant planting stock from a supplier in Oregon," Donald Kidd told me. "As soon as I opened the boxes I could smell the rotten garlic. The stock was bruised, cut, dented and there was some decay and mold. I was angry, disheartened, and not sure what to do."

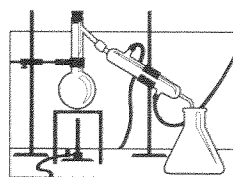
Donald sorted the 800 pounds and called the supplier and settled for a 10% discount on the agreed-upon price. He planted the best of what he had left. Time was against him; he had to plant. That was the second mistake. Instead of the usual quick sprouting and emergence, it was slow, spotty (maybe 30-35%), and it looked weak. He called his extension agent who took samples, sent them to a plant pathologist, and was informed the garlic was infected with blue mold (which we know as *Penicillium* decay).

So what can we do to protect ourselves from this business practice? First, I recommend asking that representative samples of the stock be sent to you. This shouldn't be an issue for a 800-pound order. Ask the seller to supply you with an inspection certificate that the material is graded and free of disease. This can be done by state, university, or private lab. Hold onto your money until you see the product or put it in an agreed-upon escrow account or held by a third party. Put together a comprehensive contract

as to what's expected in quantity and quality and compensation. Before you even unload it from the delivery truck, inspect the boxes, open up a sample and inspect it with the driver. If there's a problem, don't accept it, get the driver to write down what he/she observed or smelled.

Let's face it, once the shipment is accepted, once payment has been made, as soon as you lose your leverage, you have a very different situation. Mistakes can happen, so can fraud, and as much as I want to believe that we're all wonderful-fair-honest-neighborly folk, I came to learn a few years ago that the moon isn't made of blue cheese. The sad reality is that the dollar is driving this industry, and it is the root of all this variety bullshit that we here in the East are now seeing — new diseases that hadn't yet crossed the Mississippi River, and more and more I hear these tales. Protect yourself. Good business practices are like good framing practices: they're necessary in order to be successful. Interstate or cross country legal recourse isn't very available to the small farmer. Just call your State Attorney General if you want a good laugh. Maybe a member with a good mind or legal training could put together a sample contract for us to put in a future *Press*. We aren't naming names in this (or any) case. Not now, but we surely will if a pattern is established. (D.S. com)

## Looking back/1999 ... Pretty Fart Smellers ...



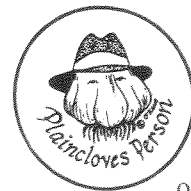
The march goes on in biotech—consolidate, consolidate! Dependence on foreign markets and consolidation of livestock production lead to less land and fewer and larger farms. Over the next five years, some are predicting a 50% reduction in the number of farms. Science is providing the ability to do anything that can be done with petroleum, pharmaceuticals, polymers, and energy with carbohydrates derived from plants, which brings the food and health industry together with an agenda a little broader than feeding and clothing the world! Global trade is expected to increase 15 times in 15 years. Tech fixes abound ... a sunflower field with remote sensors will monitor data to advise farmers to take certain actions and simultaneously calculate yields and relay data to a processor with crop volume reports and characteristics. Of all the engineers, doctors and scientists who ever lived, 80% are alive today. Michael Muston of Mycogen Seed fame says, "What we cannot conceive today will be reality tomorrow." The equivalent magnitude of change represented by the last 100 years will be realized in the next 20. Dizzy yet?

Methyl bromide is finally being banned (1/1/00) and three new species of beneficial fungi are filling part of the gap. All from the genus *Hypomyces*, a cousin of *Trichoderma*. In New Orleans scientists are studying the fungicidal properties of small protein peptides found in moths (*Cecropia*), frog skin and plant seeds and using them with soil-dwelling bacteria to find new weapons against *fusarium*, *aspergillus* and other virulent fungi.

Locally, the hunt for fungal formulas at Finger Lakes Land Trust in Danby, NY (south of Ithaca) has produced Cyclosporin (organ transplant), Ivermectin (parasite/worm medicine) and Paclitaxel (Taxol). Jerrold Meinwald of Cornell says, "Our own fauna and flora are as unexplored as any typical rain forest.... We don't need much. Just a blade of grass can give us enough fungus to start a culture in the laboratory."

Since 1984 the volume of DNA data has doubled every 15 months. By 2001 plant geneticists expect to complete the sequencing of the genome of *Arabidopsis*, a small weed of the mustard family. It will be the first plant with a complete genetic blueprint. Steven Tanksley, Chair of Cornell Genomics Initiatives Task Force says, "Right now in medicine, we don't target specific genes, we target symptoms. A number of diseases are related to specific gene products. So as we identify those genes, we might target specific chemicals that could be useful to overcome problems. A lot of hereditary diseases are caused by a malfunction in a particular gene. If the gene is identified, we might direct a pharmaceutical toward it. This will be one of the new concepts in medicine. Treatment will be tailored to specific people rather than to specific symptoms. Each person is genetically unique, and so each can be uniquely treated."

(to be continued - B.D.)



## The Secret Formula

Everyone seems to have a recipe, a potting mix, a rotation, and homemade elixir or remedy that has just the right mix of horse sense and magic to work miracles. We plant, cultivate, harvest, dry, each in our own revised way, year upon year. For some of us it may be that tried and true is the golden rule, for others it's like playing pinball and a question of how you react to the moment. I guess I fall more into the pinball player group. I always try a little something different with some and hedge my bets. Like shallots that

I plant in the fall, between my varieties for row markers, I wait and then spring-plant what carries over, and then compare notes. Every year is a different picture. Truth is there is no right or wrong way to do things. A bad year will teach you what you could have done, and a good year makes you try to remember what went right. Your part is what's the critical factor — your pain, pleasure, persistence all pay off — and you learn to work your eyes, ears and nose a little harder than your tongue!

We're all a bit too quick to judge at times, and there's wisdom to watching and waiting. So is the secret more important than the formula? or is it the other way around? Like your garlic on your ground, it's uniquely yours for sure — your problem and your answer — and in truth the only secret formula is you. Without that, maybe the whole world would think garlic grows in 5 lb. tins and is already peeled!

## UNTITLED

TREES ARE STANDING ON THEIR HEADS AGAIN!  
TOES FROM OUT THEIR HEAD  
ARE LYING IN THEIR BED  
A MAGNETISM OF SUBTLE CHANGE  
OF TONIC TO FOURTH, G TO C, AND BACK AGAIN!  
GARLIC TO CLOVE AND CLOVE TO GARLIC  
THE DANCE OF MAYA, ILLUSION  
AND THE LAWS OF TRANSFORMATION  
AND TRANSMUTATION ....  
THE MIRACLE OF THE CLOVES AND FISHES  
OUT OF THE ONE COME THE MANY  
LIKE LAZARUS FROM OUT THE DEAD OF WINTER  
ARISES A NEW LIFE IN THE SPRING  
A TINY THREAD THO' CONNECT US  
NIGHT TO DAY, CENTURY TO NEXT  
ROOTS TO SHOOTS  
A REINCARNATION IN KIND  
THE CLONING OF BALANCE IN FLUX  
THE SPIN AND WOBBLE OF EARTH  
AN AXIS BOLD AS LOVE  
BALANCED UPON THE TIP OF A CLOVE  
AND THE EXPLOSION OF THE BASAL PLATE.  
LIKE PHASES OF THE MOON  
THE WANING AND WAXING  
OF BULBS ENDLESSLY ON ...  
OF BODY AND SPIRIT  
AN ETERNAL ESSENCE  
SACRED TETRAHEDRON  
INBREATH OF ROOT  
OUTBREATH OF SHEATH  
AS ABOVE, SO BENEATH!  
WRAPPERS COME AND WRAPPERS GO  
A PUNGENCY REMAINS  
ANOTHER DIMENSION  
WE SERVE OURSELVES  
WE ARE THE ELVES  
LIKE BEES TO FLOWER  
'TIS THE POWER OF LIFE  
WHICH WE ARE

WHICH WE SHARE  
WITH THIS FORCE WE CALL GARLIC  
AN EMISSARY OF CHANGE  
TRANSFORMATION OF RAGE AND CALM  
HIGH TIDE AND LOW IN THE FLOW ...  
AH LOW THE MOON!  
A DAY OF PLANTING PICKED  
AT THE RIPENESS OF THE FERTILE CRESCENT  
AS IT WANES THE DREAM REMAINS  
OF FULFILLINGNESS!  
WE ARE NOT A PART  
THERE IS NO WITHOUT  
ONLY DOUBT AND ITS UNMASKING.  
ONLY A PORTION TOUCHES THE EARTH  
YET THE WHEEL SPINS ROUND ...  
THE EVAPORATION  
OF EVERY MOMENT  
IN THE DANCE  
OF THE HOURS ... A COSMIC CLOCK!  
HOW CAN WE NOT FEEL HUMBLLED?  
AND HOW?  
CAN WE NOT FEEL  
THE WEIGHT OF THE WHEEL  
UPON NOW  
WE  
ARE  
ALL CONNECTED  
A THREAD APART.  
EACH A ROOT  
SUFFUSING  
EARTH ESSENCE  
EACH OF US  
USING  
OUR HANDS  
OUR HEARTS  
LIKE TIME  
UNWRAPPING AND WRAPPING  
THE CLOVE ....  
(B.D.)



# Stink Fests

## A Guide to 1999 Garlic Festivals

All dates verified as of January 1, 1999

What and Where?	When?	Who?
Garlic Fest Fairfield, CT	April 30 & May 1, 2	Father Bill, Notre Dame Catholic School 203-372-6521
Gilroy Garlic Festival Gilroy, CA	July 23, 24, 25	Taped Message 408-842-1625
Fox Run Winery Garlic Festival Penn Yan, NY	July 31, August 1	Wendy 315-536-4616
Eastern Ontario Glorious Garlic Festival Perth, Ontario, Canada	August 14, 15	Paul Pospisil 613-273-5683
Elephant Garlic Festival North Plains, OR	August 20, 21, 22	Lloyd Hubbard 1-800-661-1799
Adams Garlic Festival Pawcatuck, CT	August 21, 22	Adams Family Farm 860-599-4241
Canadian Garlic Festival Sudbury, Ontario, Canada	August 22	Mary Stefura 705-673-7404 - Fax: 705-673-1137
Garlic Festival Chehalis, WA	August 27, 28, 29	Andrea and Shawn Hamilton 360-740-4411 Mark Sand 206-650-4330
Pocono Garlic Festival Stroudsburg, PA	September 4	717-421-7235 610-381-3303
Southern Vermont Garlic Festival Wilmington, VT	September 4 Rain Day, September 5	Joy and Steve 802-368-7147
Northern Ohio Garlic Festival Wellington (Cleveland), OH	<b>CANCELLED</b>	Bob and Wendy 330-855-1141 (pm)
Washington D.C. Garlic Festival	<b>CANCELLED</b>	Taped Message 301-963-1422
DaVinci Center Providence, RI	<b>CANCELLED</b>	John DeLuca 401-272-7474
Hudson Valley Garlic Festival Saugerties, NY	September 25, 26	Pat Reppert 914-246-6982
The Garlic is Life Festival Tulsa, OK	October 16	Darrell Merrell 918-446-7522
Virginia Wine & Garlic Festival	October 9, 10	Richard Hanson 804-946-5168
Garlic Festival Delray Beach, FL	October 16, 17	Nancy Stewart 561-458-9353



## The Olive and Its Oil

A brief synopsis of the olive and its relationship to human societies in the Mediterranean region of the world to which it is native, with a focus on olive oil production and ancient presses used during antiquity.

By Muriel Calo (Part 2 of 4 on the botany and physiology, propagation, pruning and harvest of the olive)

### BOTANY

The cultivated olive *Olea europae L.* is a long-lived xerophytic evergreen tree. It has remarkable capacity for regeneration and renewal from the same rootstock; in ancient Mediterranean olive groves, the living trees may be sprung as suckers from an olive root system already hundreds of years old. The trees themselves, if not subjected to winter damage, may survive for decades. The olive tree does not begin to bear until its fifth year and does not reach full productive capacity until its fifteenth. This longevity allows the tree to reach heights of fifteen meters and trunk diameters on the order of 1.5 to 2 meters (Brun, 1986). The olive requires long hot and dry summers to mature its fruit, as well as mild winters, and is ideally suited to the gentle Mediterranean climate. The tree develops an expanded and mostly surficial root system that allows the olive tree to flourish through months of dry weather, and has thick leathery leaves that grow over a two-year period and bear stomata on the lower leaf surface only. These are nestled in peltate, overlapping trichomes that restrict water loss and confer a certain degree of drought resistance (Martin, 1994).

In the Mediterranean region, where the olive has flourished for centuries, the tree experiences winter dormancy from November to February. Ideal winter temperatures are a few degrees below 0°C; this represents the minimal winter chilling requirement for satisfactory blooming and fruit set the following spring. Temperatures below -12-13°C will kill the wood. Given this particular climate, the olive is chiefly susceptible to sudden frosts throughout the winter, especially when accompanied by humidity (Brun, 1986).

The flower bud inflorescence is borne in the axis of each leaf and is formed in November during the current season's growth. The flowers are small, yellow-white and inconspicuous; each contains a short, four-segmented calyx and a short-tubed corolla with four lobes. The olive tree bears both perfect flowers, containing two stamens and a two-loculed ovary, as well as staminate flowers containing aborted pistils. Flower and fruit abscission often involve pistil abortion caused by water and nutrient stress during floral development- these conditions can also lead to large proportions of staminate flowers (Martin, 1994). Buds break in March or April, and blooming occurs in April and May, on previous year's wood. Maturation of the olive fruit- a drupe- occurs over the course of the hot and dry summer and involves sizing and a buildup in oil reserves. The first harvest can begin as early as September for green olives; harvest for oil olives runs from November to February (Amouretti, 1986).

Depending on variety, the olive is 45-60% water, 15-35% oil, and 25-30% woody and soft tissue at maturity. The flesh of the fruit contains most of the oil (Brun, 1986).

### CLIMATIC REQUIREMENTS and SPACING

The ideal environment for the olive is sandy soil in a semi-arid zone receiving not less than 200 mm annual rainfall. The olive root system does not penetrate deeply into the soil, but rather spreads laterally under normal conditions. In extremely dry regions, the olive will send its roots far down for water (Brun, 1986). The olive can also be grown in heavy, clayey

soils, but requires up to 700 mm rainfall a year for proper root development and water supply to the tree. It prefers slightly alkaline soils.

During Greek antiquity and subsequent epochs when olive groves were managed as low-input systems in terms of water and soil fertility, tree density was determined based on soil quality, fertility and drainage capacity. In fairly shallow soils, large spacings on the order of 24 by 24 m or 17 trees per hectare became necessary to allow lateral root development. On land with well-drained soils and annual rainfall exceeding 700 mm, spacing can be reduced to 6-8 m, with 250 trees per hectare. This represents the maximum carrying capacity of land in the cultivation of olives in dry Mediterranean climates (Amouretti, 1986). In modern, intensively managed olive groves with high water inputs, densities of 300-500 trees per hectare are achieved, depending on variety.

### PROPAGATION

Propagation by woody and leafy stem cuttings, suckers, budding, and grafting represent the most common modern methods for the olive. Use of suckers, woody cuttings and grafting in vegetative propagation are techniques that have been developed and improved over the long history of olive cultivation, while the use of leafy stem cuttings as a propagative technique has most recently been made possible by a combination of factors: the invention of intermittent mist in 1950, and the chemical replication and synthesis of plant hormones such as IAA that play a critical role in root growth stimulation. We will not dwell on this latest development, but rather focus on the methods used by the ancient Greeks, Syrians, Palestinians, Northern African and Northern Mediterranean peoples.

Woody cuttings will produce young fruitful plants relatively quickly since already mature wood is used, and the olive bears fruit on 1-year-old wood. The plant needs to go through some years of vegetative growth and development (depending on water availability and soil conditions) before it will set fruit. The method is simple: young and relatively small branches were chosen and planted in the soil, either vertically or horizontally. Larger and older cuttings of 0.6 m-1 m were occasionally used because of their resistance, but these were more likely to fail (Amouretti, 1986) due to a less active meristem. Once the cutting established itself in the soil, a single shoot was selected. Clonal propagation was also accomplished by removing a part of the root bulb of an old tree and planting it; it would throw off suckers, of which one was selected for growth as the main structural support in the new tree (Brun, 1986).

Rooting shoot cuttings continues to be the major method of olive tree propagation in areas such as Spain and Italy. Modern cultivars vary widely in their ability to produce roots on cuttings. Success also depends on the type of wood that is used and the season in which the cutting is made.

The use of truncheons, large portions of olive branches 2-3 feet long, was also fairly common. The branches were planted horizontally several inches deep in the ground in late winter. Numerous shoots would develop from the buried truncheon and the one with the most vigor was selected (Sibbett, 1994). Caton, an ancient agronomist, makes the distinction that cuttings planted



directly in the orchard ground were large, while those started in the nursery were of a more traditional size (Brun, 1986). The truncheon method for planting directly into the ground is still practiced in regions such as Andalucia, Spain (Brun, 1986).

The practice of grafting a young olive cutting onto an Oleaster rootstock was widespread in Antiquity, particularly in Greece (Amouretti, 1986) and is cited numerous times by Homer. During the Roman Empire era, the practice also became common in Northern African countries (cited by the agronomist Pline). The olive groves of Kabyle in the beginning of this century were regenerated in this fashion (Amouretti, 1986). Grafting was preferred to complete regeneration from seed because successful germination was low (40%), and because the delay that involved growing the plant, transplanting it into the nursery and then the orchard, and finally grafting it was too great before the tree could bear fruit.

The renewal of groves that are old or that have suffered frost kill was also accomplished by lopping the tree to the ground and selecting one or several suckers that grow up from the live root system.

Modern-day grafting is used to propagate cultivars difficult to root as cuttings, as well as when particular traits in the rootstock are desired, such as resistance to certain soil-borne pathogens or dwarfing (Sutter, 1994). Either seedlings or rooted cuttings may be grafted when they are 1 year old and ¼ to ¾ inches in diameter. Rooted cuttings can be grafted onto these rootstocks one year after the cutting is taken and must be of the same diameter. In accordance with traditional growing practices, grafting also serves in the regeneration of modern olive groves through *top working*, changing the cultivar of a tree or an entire orchard.

#### PRUNING

The unpruned olive tree has a biennial bearing habit. It will set more fruit than it is effectively able to support in one year, leading to significant fruit drop in early June and again in late August. The remaining fruit represent a strong sink for the tree's resources and will hinder the development and growth of vegetative shoots that carry both vegetative and fruiting buds for the following season. Thus, a biennial bearing habit develops where one year in the life of the olive tree is devoted mostly to vegetative growth and the development of fruiting buds, and the following year is given to excessive fruiting and little growth. The Greeks considered the olive's biennial to be a natural characteristic of the tree.

A principal objective of pruning on olive trees is to reduce the biennial bearing habit. One reduces vegetative growth on the tree, including branches bearing fruiting buds, in order to favor the current year's crop and to insure well-sized fruit the following year—in effect, thinning the crop one year in advance. Pruning is also important to allow light to penetrate into the interior and stimulate the growth of new wood where the fruit will still be accessible to pickers.

In the first years of the tree, it is critical to remove the suckers that grow annually, and to develop a structure in the tree while at the same time pruning minimally to encourage the development of a healthy leaf cover that will be able to support substantial cropping. The agronomists of classical Greece recommended that pruning occur in the spring, over a month and a half. In less fertile soil where productivity was low, annual pruning was discouraged, and instead pruning every eight years was recommended so as not to remove too many fruiting branches (Brun, 1986). We have few primary sources documenting the actual technique of pruning, but those we have seem to point to a minimalist method: removing dead, diseased and old branches having already borne fruit, branches that appear too

vigorous and were weakening the tree, and all suckers. It seems very little pruning was done to build a framework of branches and prevent the tree from growing upwards and to a very large size. Trees took five years to come into bearing and a total of fifteen to reach full production, while nowadays with intensive management, most cultivars only require three years to bear.

#### HARVESTING

The harvesting period can last for six months: green pickling olives are picked in September and August depending on variety, fully ripe black olives destined for oil pressing or pickling are harvested during December, January and February.

Harvest of the olive crop is a highly labor-intensive operation, especially because of the unequal maturation of the fruit on each tree due to orientation, age, and microclimate (Amouretti, 1986). In Greek antiquity, most olives were grown by smallholders on diversified farms who did not have the equipment or the means to process the harvest all at once, in the case of oil extraction particularly. Most often the harvest was spread over several months.

Traditional harvesting techniques include the collection of naturally dropped fruit from underneath the tree (requiring further cleaning), used exclusively for oil pressing—this method persists to this day in Corsica and Kabyle (Brun, 1986). It requires stoop labor and numbed fingers, as this kind of harvest takes place in the late winter months. Handpicking of olives assures top quality but is slow: a worker can harvest a maximum of 100 kg a day under the best of conditions. When the tree matures a bit and handpicking from the ground is no longer feasible, ladders may be used. This method eventually becomes inefficient as the minimally pruned tree grows and the one-year-old wood bearing the fruiting buds is found only on the outside periphery of the tree structure. At this point, thrashing the tree with wooden sticks to retrieve olives from the highest reaches becomes an effective method, widely used in Greece since at least the 6th century BC (Brun, 1986). Traditionally, a person climbs into the interior of the tree and thrashes from the inside outwards. It is a difficult task for the beater, and the tree may sustain damage if the beating is too severe. Afterwards, the olives are collected from tarps spread under the trees for their reception and cleaned, as is still done today in Kabyle and the Maritime Alps. However, it is fast disappearing because of an increased awareness of how wounds opened on the tree from thrashing become easy entry points for parasites and disease organisms. Modern production makes use of mechanical shakers (Brun, 1986).

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### ACTIVITIES

Thursday, Oct 14

Symposium Mixer & Garlic Tasting

Friday, Oct 15

Friends of Garlic Symposium & Garlic Dinner

Saturday, Oct 16

Garlic is Life Festival

All events at Oklahoma State University / Tulsa Campus

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<b>Garlic Dinner:</b>	\$30 _____
	<i>per person</i>

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2 Chairs

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## Over 150 Garlic Growers attend the 13th Annual Garlic Growers Association of Ontario Field Day

by Laurie Vereecken

This year the Annual Field Day was held in Ridgetown, Ontario at Ridgetown Agricultural College-University of Guelph. We toured farms in Southwestern Ontario. The first was RandLaur Specialty Farms, where Randy and Laurie Vereecken grow 15 acres of Music variety hard-necked garlic. The second stop on the agenda was at ClenAgra Farm, where the Clendenning family grows 35 acres of Music variety garlic.

At both farms growers were able to see machinery that was constructed using existing machinery re-fabricated to use for garlic and machinery fabricated by companies specifically for garlic. They were also able to tour the crop and, of course, compare it to their own back home. All the machinery on hand showed examples of what some growers use for planting, harvesting, brushing and drying.

The growers also had an opportunity to visit test plots at Ridgetown College, which showed garlic being grown under various conditions. John Zandstra and his team are conducting this research right on the grounds at Ridgetown College. Some of the variables were clove and bulb size, when planted, and scaping times. We look forward to seeing the results.

After all this activity we adjourned to a great meal catered by the people at Beaver Foods on the campus of Ridgetown College. Raymond, the chef, and his team put out a beautiful meal consisting of roast chicken, veggies, fried scapes and lots of fresh bread and yummy desserts. The only complaint—there wasn't enough roasted garlic to go around.

After eating we all settled in (and I mean settled) to talk with and about Ted Mackza. For those of you who do not know Ted, the enormous garlic bulb he has on his van easily identified him. Ted has grown garlic for many years. He is a great advocate in the marketplace for Canadian garlic. The roasters, Tony Temmer and Warren Ham (both directors on the board), told him he had to hold up a garlic plant when he

made his speech. Holding the garlic plant aloft was our way of allowing Ted to speak while keeping it brief. "Drop the garlic," he was told, "and the speech is over." Ted is a great supporter of the Royal Winter Fair and urged all garlic growers to exhibit their wares. Ted was presented with an "Ontario Garlic, Simply the Best" ball cap and I am sure he will add it to his large collection of garlic paraphernalia.

After dinner and before the business meeting, growers had an opportunity to view some of the equipment being displayed. We had equipment from BDK, Delhi Foundry and Willtsie Equipment Sales. They displayed harvesters, brushers, planters and crackers.

To end the day our guest speaker, Tracy Lamb, who has done an enormous amount of work with fresh vegetable growers in the area of promotion, talked with our growers. She concentrated on the Four P's of Marketing: Product, Price, Placement and Promotion. She believes we have a great quality product, but we need to get together as growers and decide on promotional strategies to enhance our sales. The way to accomplish this daunting agenda would be to start with what Tracy calls a shopping list. Shop around for different promotional material, ideas and avenues. Cost out each one and then prioritize from there. Tracy gave us some great ideas to start with, so now our executive and membership have some work ahead of them to get the ball rolling. Tracy was a great lead into the business portion of our day, where we took care of some business by approving the Garlic Growers Association of Ontario's budget that will focus primarily on promotion of our product.

All in all, the day was a success and a big thank-you goes out to all those who helped to put this day together: the hosts who had us at their farms, the fine people at Ridgetown College, and everyone else. The location for next year's field day? Any volunteers??

## Millennium 6+

So how old is your garlic? Brought over from Italy in the forties? Maybe Carpathian that fueled the Roaring Twenties in New York? Well, if you think of the generations that lifted and split and planted this noble herbal gift from the earth, even the cautious historians can link it to at least 3000 B.C. That's when it got its picture gnarled into a wall or tomb, or sketched on papyrus—and that was after a caravan brought it into one of the "civilized" societies that are acknowledged.

So I say we up the ante another thousand and celebrate! Let's call it Millennium 6+. That's what I call heritage! Like the silly thought you own land ... it's our turn now. For a short blink in time, we are allowed to breathe the fire of garlic, we let it grace our tables, whose wood is a child, comparatively. We should appreciate this dowry from the earth, this stinking apple from out the Mother's womb, and ask ourselves again: "What came first, the clove or the bulb?" A conundrum indeed!

But as we celebrate this passing into a funny first number of our yearly date (from 1 to 2), we may find we are not so unique. It's just another winter's sleep for our friends beneath, but celebrate dear friends, and toast the dawn. For centuries to come the garlic grows on! (B.D.)

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## CHINESE DUMP 1.8-MILLION KG

### Growers set to fight latest act in garlic war

By Jamie Reaume

**STRATFORD** - A new twist to an old scenario.

That's the essence of what Warren Ham said when asked about reports that the Chinese had brought more than 1.8-million kilograms (or more than 4-million pounds) of garlic into Canada just days before the July 1 duty tariff was in place.

The estimated value of the garlic is more than \$2-million or 51 cents a pound.

In 1997 the Canadian International Trade Tribunal (CITT) issued a decision indicating that anti-dumping duties against imports from China would be imposed from July 1 to December 31. The duties are in place for a five-year period, with review at the end of that time.

However, the Garlic Growers' Association of Ontario (GGAO) had been fighting for a year-round duty on garlic for a number of reasons — primarily due to the fact that this incident is not the first time it's happened to growers. Since the duties were imposed in 1997, the Chinese have dumped garlic into the market in June - 661,748 kg in 1997 and about the same amount for last year.

"I knew it was going to happen," said Ham - a garlic grower from the Stratford area - in a recent interview. "That's why when we were at the tribunal we explicitly asked that May

and June be included in the duty period."

China, Ham explained, has a large growing area and can export a large quantity before the July tariff period.

"With the range of growing season, they (the Chinese) are able to get it into Canada and avoid all tariffs," he said. "I researched the possibilities of getting garlic here before the tariff came in. It was quite feasible to do it."

What upsets many garlic growers is that a similar problem occurred in the United States which led to a complete year-round tariff in place on Chinese garlic.

"The tribunal felt we are not big enough producers for 12 months of the year," said Ham. "And now we are paying the price."

He added that fighting the decision by the tribunal, which the GGAO is doing, is an "expense and a hassle and in the meantime, a lot of people are going to be hurt."

Garlic is always a tough market, but this year's crop - which was being harvested at the end of July - has been especially good and that will be a selling point by the association to retailers.

"But when you put that much garlic into the market before July, the price is naturally going to be driven down," said GGAO president Garth Burrow.

"It's difficult to deal with in the midst of a harvest, but I can't imagine it's going to be going higher."

Burrow is worried that Ontario will not be able to get a premium price for a premium product because of the Chinese garlic in the market already.

"We're waging a battle on two fronts," he said. "We have to protect our growers from the effects of the garlic being landed before the tariff and at a cost below which we can produce it. And at the same time, we have to convince consumers that Ontario garlic is a premium product and not the cheap stuff they're getting now."

Burrow added that there is "no comparison" between Ontario garlic and the Chinese variety.

"Ontario garlic has quality, size, and taste," he said. "Unfortunately, Chinese garlic is cheaper."

While consumer decisions are best left in the hands of those buying the product, the issue of the tariff looms large for the association. It will continue to press for a year-round tariff to prevent any such incursion into their market again.

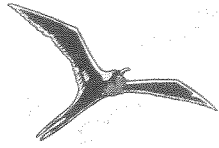
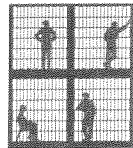
"I grow garlic in a political bubble," said Ham. "We just have to keep on until the tariff is year round."

*Reprinted from The Grower, Vol. 49, No. 8, August 1999, pp. 1 and 3)*

*It was 8 years ago (Press #15, Winter 92-93) that we first reported the invasion of 8 million pounds of Chinese garlic coming into the east coast at 35¢/pound. While we have something of a protection barrier, our Canadian Brothers and Sisters do not. They need our support. So if you've got a couple of bucks or supportive words, send them to: GGAO President Garth Burrow, RR #1, New Hamburg, Ontario, Canada, N0B 2G0. Thanks. D.S. com.]*

**PLANT THE BEST,  
SELL THE REST!**

"Beannie" Robinson  
Savannah, N.Y.



# Chow Time Flying Free

Greetings and Salutations to all my global Garlic-eating friends. Chef Ed here, sending you well wishes, bad breath, and hope your bulbs are reaching for the stars.

Friends, the genre of this particular piece of literary work will not mirror my previous written compositions. The theme this time around will be "Cheers and Jeers." **Amigo's, yours truly will be going home! Yep, Chef Ed is outta-here, vamoose, hit-the-bricks, unshackled, out-from-under, liberated, just plain adios! — and to say good-bye and thanks to all the people who have given me much support throughout the years.**

Cheers go out to my family. The help from Mom and Pop and the rest of the Chef Ed clan (there's a lot of them). Their love and friendship will never be forgotten. Jeers to the ones who knew me from the good times and forgot me at the bad times — your loss, not mine. Cheers to Dan and Harry at Greene, for backing me up when the turnkey backed me down. Jeers to the New York State Department of Corrections and Parole, for misleading the public as to what really goes on in here (pons asinorum). The Man upstairs hears all, sees all. Cheers to all the great Society of Friends (Quakers) who volunteer their time and energy teaching peaceful resolutions to hostile situations — "Alternatives to Violence (AVP)." Jeers to all Bastille mess halls, for not enough good food — and no garlic!

Cheers to David Stern, whom I met a long time ago at an AVP seminar, and who is the big cheese (or I should

say big Garlic) to helps hold together the famous Garlic Seed Foundation. Thanks, Dave, for the garlic you send me and for *The Garlic Press* (people do recognize your crusade). And cheers to all the members of the Garlic Seed Foundation who read the *Garlic Press*, contribute, and send in letters. Keep them coming, and don't forget your membership dues.

Friends, this time has taught me a lot about myself and life (no thanks to the Dept. of Corrections), and I can truly say to you, never take for granted what you have, because when it's gone, you may never get it back. There is nothing, nothing more precious than time. You probably feel you have a measureless supply of it. You don't. Wasted hours destroy your life just as surely at the beginning as at the end, only at the end, it becomes more obvious.

(Look for upcoming articles from Chef Ed in the near future.)

Peace,  
Chef Ed

*[I gave Chef Ed the choice: keep writing as if you're still in prison; keep writing as you gain your freedom, put your feet down, and share that with us; or just say goodbye. He ain't dishonest and he ain't ready to say goodbye, so off we go: FREE CHEF ED! I've offered Chef Ed a job on his knees helping me plant this year. Anyone wanting to visit should call first. D.S. com.]*

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### Bulbils

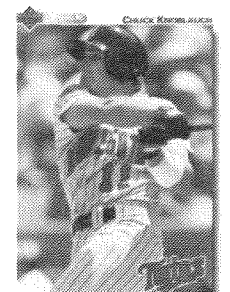
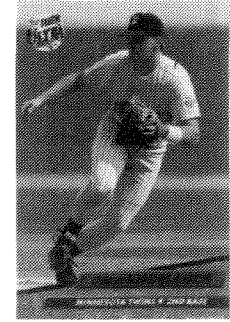
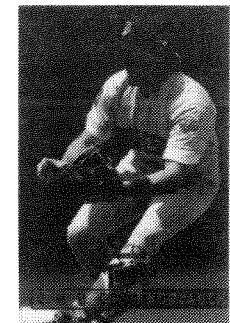
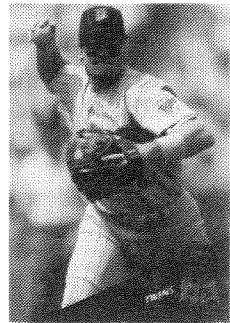
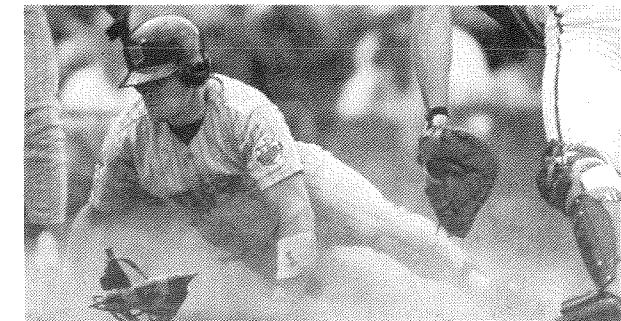
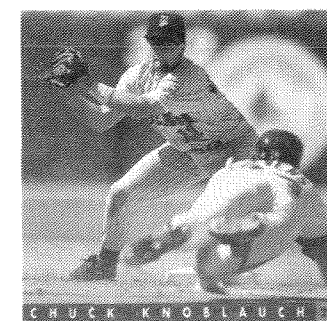
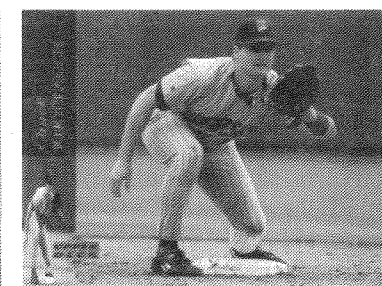
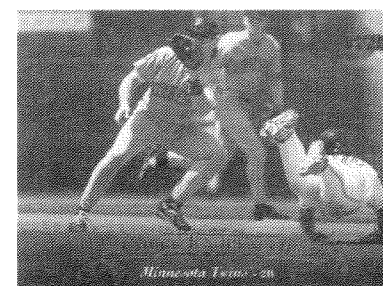
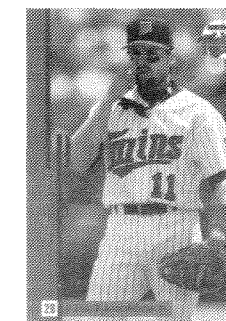
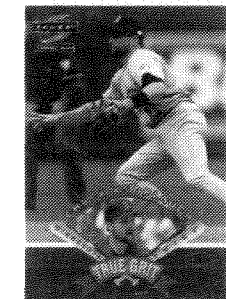
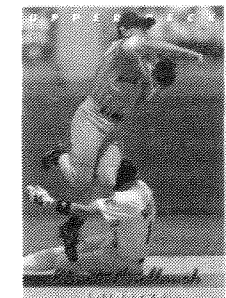
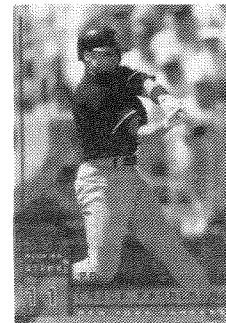
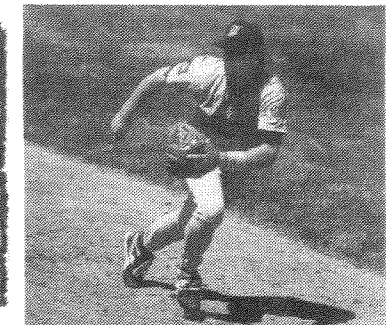
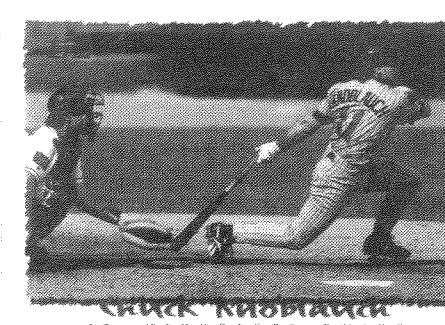
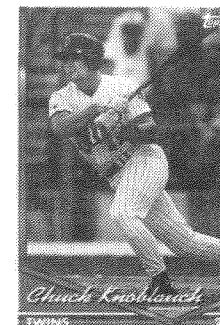
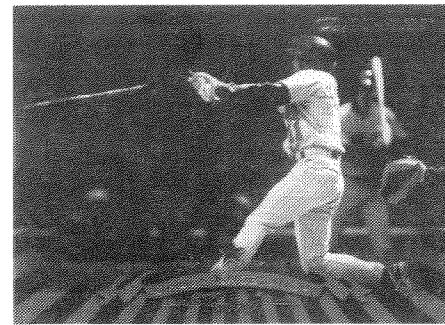
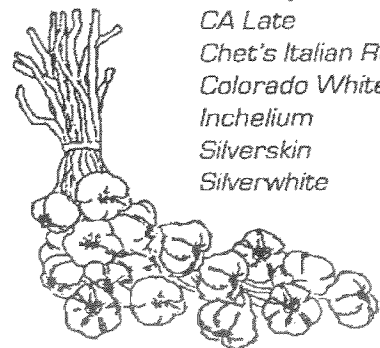
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## The CHUCK KNOBLAUCH Story

While the NY Yankees are in first place by 5½ games in front of Boston, our man on second base has been having some problems. At *Press* time, he's in a batting slump of 2 for 19 (although his batting average is a respectable 293, 60 RBI, 16 H.R., 145 hits), and a whopping 23 errors on the defensive side. Now Chuck plays a key defensive post at second and is needed to field any hit that comes his way, turn the plays at second for the double-play, and throw the ball to his first-baseman, Tino Martinez. It's in this throwing part of his job that he's been having the problems and is tied for the league lead in errors. Maybe a little more of the garlic would help keep him focused and on target.

There has been a bright spot for our hero. Back on July 18, with David Cone on the mound pitching for the Yankees against the Montreal Expos, Cone had a perfect game going into the 8th inning. With one out, an Expo hit a smashing ground ball up the middle where our man Chuck dashed to his right, made a spectacular backhand catch, pivoted and made a perfect throw to out the runner! Way to go Chuck! Pitcher Cone said, "When Knoblauch made the great play, I decided it was part of the Yankee magic." Cone did the rest for the 14th perfect game in modern history. (D.S. com.)