

"For scientists, working to provide more healthful vegetables is not just an opportunity, it is an obligation."

Leonard Pike, of Vegetable Improvement Center, Texas A & M

"If your dog doesn't like someone you probably shouldn't either."

— Unknown

ELEPHANT GARLIC STEW

1 Elephant Salt and pepper to taste
Brown Gravy 2 Rabbits
 3800 Garlic Bulbs

Cut elephant into bite-size pieces (this will take about 4 months). Cook over kerosene at 525° until tender (about 5 months). Add salt and pepper and cover with brown gravy. This will serve 3,800 people. If more are expected, add 2 rabbits. Do this if only absolutely necessary, as most people do not like to find hare in their stew.

GARLIC SEED FOUNDATION
ROSE VALLEY FARM
ROSE, NY 14542-0149

CHANGE SERVICE REQUESTED

The Olive and Its Oil (Part IV of IV)
Garlic is Life II
Bam Emeril Bam!
Three-Point Hitch Tricks

David Stern
Rose Valley Farm Nc
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THE REGULAR, AND NOT SO
REGULAR, NEWSLETTER OF THE
GARLIC SEED FOUNDATION



The Garlic Press

FALL/WINTER 2001



#38

REFLECTIONS AND REVIVAL OF A GARLIC GROWER (OR TWO)

This first growing season of the new millennium was a testy one! Here in the northeast, the only way to say it is ... WET. Wet to the extreme, especially for those of us with other than sandy soil. Then again, there's always something about the conditions, eh? Too wet, too dry, too cold, too buggy, too But this WAS extreme, wasn't it? "Spose we might be just looking for validation of our feelings of frustration due to the lack of "real" summer.

So there we were, back in July, with the garlic harvest upon us and nothing but wetness in the forecasts. This was a new scenario for us—merely 4-year-old garlic growers. What to do when the likes of Mother Nature don't align with the likes of a garlic farmer? After asking some local resources about harvesting wet garlic in wet conditions to no avail, our concern began to veer toward panic and we were stumped—to pull it out in mud or leave it and hope for some dry weather soon? Our relief came when we branched out to long distance telephoning—first, Bob Yerina, as we'd heard he grows A LOT of garlic. This helped us lean toward harvesting now as he told us he was headed out the next day in the rain to pull what he could "salvage." And as fellow growers there was the opportunity to commiserate with one another. The final support call was to the Garlic Seed Foundation, and this clinched our decision. The words went something like, "You have no choice but to get it out of the ground now!" That's the boost we needed, and off we trudged to dig the muddy bulbs from their 9 months in moist beds. We actually were pleasantly surprised that not many had over-matured or rotted and they generally looked pretty darn good for a couple of amateurs.

So on to the drying process, another new scenario for us—drying and curing in wet air. The rain continued so we continued to beg, borrow and buy more fans. Our barn was full of our 8000 bulbs hanging in fencing that was attached to the beams keeping it vertical. This worked fairly well for our first attempt at this system. We limited each 2x4" hole in the fencing to 3 plants, hoping for better air circulation. The fans blew air around for a few weeks. The sun eventually shone again and we thought all was cool in our garlic-curing world. Lo and behold, while cutting the stems of our last and tallest plants—our Piacentino Italian porcelain—a few showed signs of rot.

Panic set in immediately this time. Our minds were thinking we've lost our crop, can't sell any of it, better close up shop. Then a meeting of our more rational minds had us picking up that phone again and this time directly dialing the

GSF "hotline." We were reluctant to bother a busy farmer with yet another new grower dilemma, but we were feeling at a loss. Our panic settled into relief (again) as soon as the "rot" was diagnosed, as best it could be by phone, and we were assured that "this is what we're here for." Wow, now we get it—the Garlic Seed Foundation is also a support system for all of us. How grateful we are.

From there our happy ending resulted from GSF's encouragement to sell what we were comfortable with in our own conscience—we culled the largest and most suspecting bulbs—and their suggested option of a written declaration to our customers explaining the trying growing season and if there were any problems, we would replace their garlic this year or next. This we liked—educating the public about the challenges of farming, encouraging repeat business, and the best part—we could sleep at night knowing the potential problem was exposed.

Now it is early October, our crop was all sold as of two weeks ago, and we've had no "returns" yet, but have had many understanding and appreciative customers. Selling out by mid-September also allowed us to go to the Garlic Festival in Saugerties ... as consumers, observers and not sellers. What a treat: a feast of eyes and the palate to view and taste all the creative ways of peddling this stinking rose we all continue to produce in these rich soils of the northeast. We sampled some of Chester Aaron's seminar and his wonderful storytelling. A very inspiring gathering. And to top it off, a garlic growers' potluck in the evening, which included the famous Ted and his garlic "juice" as well as Fred and his garlic chocolate chip cookies—juice and cookies that are good for you!—and many other tasty concoctions. The other huge benefit was the swapping of stories amongst fellow sodbusters and garlic lovers. We find the willingness among growers to openly share lessons learned along the way and to give support, both humbling and heartwarming. We were grateful to be a part of this team and glad, especially, to finally put a face to the Garlic Press producers, David and Bob. We look forward to each new issue whenever they are able to put one together—clearly it is a labor of love, sweat and tears. This event was very rejuvenating for us and we returned home deciding to plant as much as, instead of less than, last year. Thanks from a couple of revived garlic growers in neighboring New Hampshire.

— The Someday Farmers,
Margy Wood & Steve Robertshaw

Director's Notes



It has been almost a year since I sat down to put my thoughts in the *Press*. It has been a time of continued growth in this small industry, with more garlic consumed and more producers filling the market. The prices have remained constant for most of us because we continue to produce superior product compared to the industrial farms in this country and the "globalized economy." We are teaching our neighbors and markets the value and quality of our garlic and their need to support their local farms.

I'm always so appreciative of the beautiful garlic I see at the festivals, which continue to grow. The number of supermarkets containing processed garlic products is voluminous. We are getting more sales to gardening neighbors — who should never be considered competition, since they return year after year for more and more to plant, eat, and share. The more they grow, the more we'll grow.

One key factor that limits our growth has been the amount of person-hours needed for production. The lack of affordable small-scale equipment and the high cost of labor make us keep our production manageable, and that correlates to a higher quality product. We take pride in our labor, soil, and produce. We have grown and studied this plant for a long time, and our experience is starting to give us a small degree of wisdom, just as it and the mental and physical stress it can create do in our lives. The variable in this story is the weather. I share with you a couple of excerpts of a well-written piece "Wild Weather," written by Keith Stewart, a GSF member and organic farmer, for *The Valley Table* (Issue #10). It speaks for most of us in my region.

But not everything has gone badly. The rain in May and June made our garlic grow nicely, giving us large bulbs, though the rain in July created a harvesting crisis. If you want garlic that will store well and taste good for six to eight months (and we do), you need to cure it by letting the tops dry down. Garlic harvested in wet conditions is difficult to cure. But leaving the bulbs in the ground too long, waiting for dry weather, means they will keep growing and soon burst out of their skins. You'll be left with big bulbs with exposed cloves that tend to break apart and have a very short storage life.

We gave up on waiting for dry weather and brought the garlic in wet, something I've never done before. Within a couple of days, white spores started appearing on the damp and still partially green tops. With much trepidation we cut the tops off and stood the bulbs one layer deep in ventilated crates. We then turned on the fans and have been blowing air across them day and night for more than a month, hoping to avoid bacterial invasion. It seems to be working—but it's using a lot of electricity and a lot of fans. In one anxious week I bought seven new fans, including one big, belt-driven 36-incher for \$475.

Farmers tend to grouch a lot about the weather. It's one of those things that seldom works out just right for us. And if it did, you can be sure we wouldn't let on....

In the Northeast, the weather rules. We farmers are more like hunters and gatherers, not knowing

what the next day or the next week will bring. But there's something to be said for not always being in full control, for not having nature under your thumb. The wild and erratic weather we so like to gripe about and that sometimes strikes us without mercy is often enlivening. It keeps us on our toes and reminds us that we're not the only force to be reckoned with on the planet. And it is a thread of commonality that binds those of us who work on the land. Except when I'm especially disgruntled after a long, wet week, I wouldn't have it any other way.

The message here is quality. Some years are good and some are not. In those years when we look at a harvest that is not of the usual quality, we can be tempted to sell it. I would suggest we "bite-the-bullet" and make machinery investments (above), develop secondary markets, educate the customers, and try not to be discouraged. Inferior product hurts us all, as well as the good name we have generated over the past 10 years.

In closing, I share the passing of a friend, a member of my small family who walked onto this farm as a stray, quickly discovered the love and security, made this his home, and every day of our 12 years together he shared his gratitude. We spent each day together, and at night he would sleep next to my bed or, responding to his ancient genes, outside buried in a snow drift. He loved the worst of snow storms. A week before his death I had to dig 50# of carrots from a snow-covered mulched field. It was a howling lake-effect blizzard, the snow coming down as a horizontal cascade. I had to work with my back to the wind as the windchill was -20° to -30°F, easy. I looked over to my left and there he was, sitting facing the wind, his ears and fur blown back, his eyes mere slits, his nose twitching and absorbing all that the wind brought to him.

Just a dog, with the strange name of Birdseed, who loved me unconditionally and was keen to my moods and needs. He was special—he got under my skin and we bonded, but this is not to say I treat any of my critters differently. Whenever I would return home (especially from the stressful fire or ambulance calls, prison/jail or mediation work), we would "check in" with each other. His playfulness gave me great joy (*Press* #30). Returning his body to Mother Earth was very difficult. "It is a fearful thing to love what death can touch." Each of us in this family was affected, and we have had to readjust. He left us two months ago, and there is still an emptiness in my heart and a mournfulness in my spirit. I am slowly letting go of my selfish sorrow and starting to feel the gratitude and happiness that blessed our time together.

Each day I ski out past the garlic field to his grave in a beautiful grove where three fields join and I have planted 30 different trees and flowering shrubs for habitat and diversity. On my way to the woods we'll spend a moment and invite his spirit to come with us. Only the filbert and witch hazel "bloom" in February in Rose, and I have brought them to his grave. This farm has a different feel to it now, nurtured with the bones of my companions over the past 29 years. And sometime when I woods-ski in the moonlight or in the dawn before sunrise, gliding through the trails, I have the sense that he is with me as he always was—off to my left, maybe 100 feet, hunting, pacing me, knowing this forest far better than I over the 1000 journeys we travelled through it together—but when I turn to watch him, he is not there—only my sadness. (D.S. com.)



Press #38: February 2001

GSF ORDER FORM



MEMBERSHIP IN GARLIC SEED FOUNDATION (includes *GARLIC PRESS* subscription and #387)

- GSF/CORNELL REPORT #387* (10 pgs.) (Comes with membership) _____
- GROWING GREAT GARLIC* (Engeland, 213 pgs.) Grower's Guide for Collectors _____
- ONIONS AND GARLIC* (Louis Van Deven, 114 pgs.) Limited Quantities _____
- CLOVE N' VINE* "How to Make a Garlic Braid" _____
- GARLIC, GARLIC, GARLIC* (Griffith, 432 pgs.) _____
- STRINGBRAID YOUR TOPSET - VIDEO* (Yerina) _____

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Make Checks Payable to: **Garlic Seed Foundation, Rose Valley Farm, Rose, NY 14542-0149**

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Garlic Press Cuisine

Recently we have taken on an additional project. Not that we needed another project to use up the time, but the project of being the editor of the *Garlic Press Cuisine* seemed to be a worthy challenge. Now we all know that there are plenty of cookbooks on the market and there could be up to 50 or more just devoted to the stinkers, but this cookbook is to be one developed from recipes of the Garlic Press Members.

Does anyone know of a better way to promote the use of Garlic other than through recipes for cooking or for other usages? One would think that those most interested in the so-called "Stinking Rose" would have some unusual recipes. The problem at hand is to get these recipes released so that they can be shared by others. The cookbook project has been in the mill for at least 8 years, more or less, but from all indications less than 10 percent of the members have sent in recipes.

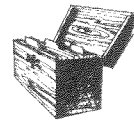
I must admit that I have more or less placed the Stinking Rose in the same category as Limburger cheese: the trouble with Limburger cheese is that you have to get it past your nose. The Stinking Rose also has this problem, but with one exception—the Stinking Rose can be used to make other

foods more desirable. The secret is in the application and the amount used.

This is where the readers of the *Garlic Press* come in. Surely you or your acquaintances may have a different or modified recipe that you may like to share. You may have a different use for a recipe. For example, Gazpacho is a cold Spanish Soup, but I am sure that it has been modified and made into other uses than Bloody Marys or dips.

Garlic is one of the members of the Allium family. The number of different types of garlic has, to my line of thinking, never been established. Some people are even under the belief that the garlic is an onion. One recipe, for example, is called "6 Onion Soup." This recipe calls for leeks, ramps, shallots, chive, onions, and garlic. True, they are all related, but like cheese, they each have their own differences.

If you do have a recipe that you are willing to share, please send it to John and Emma McKinney, 14358 Lowville St., Wattsburg, PA 16442 or e-mail e.s.mckinney@worldnet.att.net



The 2000/2001 Pollak Garlic Garden

Here in New Brunswick, New Jersey, the fall 2000 garlic planting season took place on October 14th. This date was chosen because October 13th is the night of the full moon and Sicilians plant their garlic the day after the full moon! My grandparents came here from the beautiful village of Borgetto, which is located in the province of Palermo, Sicily. My grandfather, Leonardo, came to the USA (actually Ellis Island) on the *Regina d'Italia* in 1906. Last summer, my husband and I went to the town hall in Borgetto and we saw the actual handwritten logs in which my grandparents' births were recorded.

The planting season is a wonderful time for the Pollak family. In September, when we went to the Hudson Valley Garlic Festival, we bought many varieties of garlic: Polish, Music, German White, Czech Red, Georgia Fire, Siberian, and Porcelain White. In the past, we have found that Music and German White grow best in our climate and soil. They produce the biggest and most intense-tasting garlic bulbs.

This year we have three sections to our garden. My son, Gus, his wife, Denise, and their daughter, Allison planted their section of the garden. Allison, who is 2½ years old, took off her shoes and enjoyed running through the dirt. Denise and Gus would make the holes in the garden (using our special tulip hole digger) and Allison would drop the cloves of garlic into the holes. Our daughter, Tamar, watched our youngest grandchild, Caroline, while Gus and Denise planted her section of the garden. My husband, Bill, takes the planting season very seriously. He knelt on the ground to drop each of the cloves in our section carefully into the holes. We labeled all of our rows.

Denise said that whenever she visits us, she plans to go into the garden to talk to her cloves and wish them well. Denise wants to have a contest to find out which section of the garden produces the best garlic! I didn't say anything to Denise, but I plan to go outside to talk to our special section of the garden and tell my precious cloves about our little contest. I'm sure my section of the garden will not let me down.

After we planted all 44 rows of garlic, Bill spread out a thick layer of straw to protect our beds during the winter. To add an extra measure of grandeur, we planted tulip bulbs in the first rows of each section of our garden. In the spring our garden is very beautiful with the tulips blooming and the garlic growing tall and strong.

When we harvest the garlic, we always observe and measure each bulb to check which type of garlic produces the best bulbs. I will write another column after our harvest, and I'll send along photos and measurements, so you can judge the results for yourself. Right now I have to go back outside to whisper "sweet dreams" to the cloves in our section of the garlic garden!

Phyllis Pollak
10 New York Avenue
New Brunswick, NJ 08901-1714
phypollak@yahoo.com



ALLIO-PHILE

- ☛ Tom Hyslop is looking for a harvesting tool that could be pulled behind a garden tractor (205 S. Merriam Ave., Miles City, MT, 59301-9617).
- ☛ Breath mints sales soared 8% in 1999 to \$324 million in sales (due to the increased consumption of garlic).
- ☛ Marketing small bulbs is a challenge for all of us. Paula from the Pacific Northwest sent a grocery ad for: 3 small bulbs (4 oz total) in a net bag for \$1.70. That means the grower got 65¢ for the garlic (cleaned), less the cost of the bag, label, labor and shipping! Any ideas to share?
- ☛ Elephant Grower Guide is no longer available from GSF/Rose, and purchases should be directed to: Weaver's Garlic Shedd, 29822 Ashburn Lane, Shedd, Oregon, 97377.
- ☛ GSF Membership is NOT based on the calendar year; it is based on 4 issues of the *Press*. The number on the mailing label will be the last *Press* of your membership. This is Press #38. Some of you are expired and we hold you on the roles hoping you'll renew. If your number is below #36, you'll be getting a letter from us before you are removed.
- ☛ Please send "Change of Address" cards to us when you move.
- ☛ GSF Membership costs \$15 for the first year (4 issues) and \$10 per year (4 issues) for renewal. We ask you to renew for 2 years (8 issues).
- ☛ We bid farewell to Chef Ed, who graced our pages and minds with news from inside the big house. Chef Ed taught us about the isolation and desperation of being locked away from family and society. He shared his thoughts with humility, compassion, and redemption. And he revealed the secret culinary tools needed to prepare his fine prison cuisine. Chef Ed has been out for 16 months now, and is adjusting to work and family responsibilities. The creative time he had behind the walls vanished when he got out, and after 9 years of incarceration, the Chef is ready to move on and away from his past. We thank you, Ed, for all you have given us and wish you the best on this new journey. Keep the garlic in your heart and on your breath. You are in our thoughts.
- ☛ Slides, Slides, Slides: We request you to photograph your fields, gardens, equipment, garlic, and kids and send to GSF/Rose with explanation, date, location, etc.
- ☛ How to Make a Garlic Braid by Clove N' Vine, which was introduced in the last issue, was accidentally omitted from the order form. This has been corrected.
- ☛ Garlic Press #39 will be titled "4608" (or if you're organic, "94608") and feature several articles on MARKETING that I've been working on for several years. These numbers are the PLU (producer look-up) that will be required on your packaging by most grocery stores. Any *Press* submissions on this topic would be welcomed (use of mail order, Internet, processing, etc.).
- ☛ Onions and Garlic by Louis Van Deven is soon to be extinct. This is Van's life work in Allium collecting, observation, and history. We have limited quantities, as do other booksellers. Van is not going to republish his work, but is open to negotiation if someone has the cash to invest.
- ☛ No Garlic products: Oklahoma Joe's "Creole Garlic Butter Marinade" contains no garlic. Call them at 1-800-232-3398 and tell them what you think ... and check your grocery shelves!
- ☛ Website creator and manager sought to work with two disorganized agricultural luddites who talk about it, but don't have the time, brains, equipment, or money to pull it off. Contact GSF/Stanley.
- ☛ Breast Cancer Stamps will be used on the mail that we'll be sending out to show our support for the efforts to end this disease that has touched many of us. A large quantity of stamps was purchased before the fees increase. (GSF spends \$1500-\$2000 on postage each year and is the largest user—in dollars and pieces in/out—of the USPS/Rose, NY.)
- ☛ \$28/pound garlic from Filaree Farm was accidentally omitted from the Press #37 price list and brought to our attention by members in Ontario, Canada and Erosburg, VT.
- ☛ 2,000,000 people are incarcerated in the United States. The 2000 census will tell us there are less than 2,000,000 people farming. What does this mean?
- ☛ Nitro Worm: Andy's Bait Shop, Toronto, introduced a live worm that is chartreuse and smells of garlic! They grow these smelly wigglers by adding old stink-o to the food and color to the bedding. Reminds me of the plastic garlic worm from BASS about 10 years ago when they added garlic salt to the liquid plastic before it was molded.
- ☛ GSF vs. Jolly Green Giant update: The FDA accepted our complaint for review and consideration as NYK-5003. The FDA's Freedom of Information office has been contacted through Congressional channels as to the status of our case (Press #37). The GSF sent cans of the Nibbler Corn with Garlic Flavored Sauce (that contains no garlic), along with a detailed questionnaire to members throughout the country for a "blind taste test" of this crap. Results are now being tabulated and will be released in Press #39.
- ☛ Business Cards: If you have a garlic on your business card, please send it to GSF/Rose for a future *Press*.
- ☛ Thanks to the following for their contributions to this *Press*: Keith Stewart, Alberto Venuli, Muriel Calo, Paula Simmons-Green, Cassim Dunn, John and Emma McKinney and Shane LaBrake.
- ☛ Bob and David continue to request your submissions to the *Press*. We need your help. We understand your frustration and agitation. Our only response to your calls, letters, and e-mail is to ask that you contribute. The current situation is frustrating for us as well.



Director's Award



There are opportunities for us to say a special "Thank You" to individuals who contribute their time, energy, resources and spirit to further the purposes of the Foundation. They work for the good of all of us. They organize an idea or concept into reality. They do this work for community, with respect, without personal gain, and with little appreciation.

The "Garlic is Life Festival and Symposium" is the product of Darrell Merrell. It brings together folks from all about the world of garlic to share, listen, and learn. It is a rare and unique opportunity. It brings community people and garlic people together. Add a garlic banquet and a marketplace for sales, and you have one terrific event! Darrell began in 1999 (*Garlic Press* #37), kept it rolling

through 2000 (#38), and is now organizing for 2001. He deserves our support, participation, and appreciation.

Over the years we've awarded BMW automobiles, Hawaiian vacations, Microsoft stock, new Kabota tractors; but Darrell has all those things. In 1999 we awarded our crystal etched paperweight and followed up in 2000 with our new T-shirt and heartfelt gratitude for all that he does to bring this (and us) together.

Bob and I would like to encourage all of you, no matter where you put your level of involvement, if you have the interest and can find the time, to attend the Tulsa, Oklahoma, Symposium and Festival in early November. Darrell Merrell can be contacted at: 2208 West 81st Street South, Tulsa, Oklahoma, 74152-2623. (D.S. com.)

REGIONAL-STATE-COMMUNITY CONTACTS

In the past we have tried to encourage the concept of individuals to act as GSF contacts. There are many types of projects to be organized that are beneficial and fun. Very successful garlic pot luck suppers, field days, round tables, cooperative experiments/field trials and marketing, sharing of labor and machinery, and GSF slide show/lectures have all been sponsored by one or several individuals. Festivals take many people.

We can help with ideas, experience, initial costs of printing and postage, membership lists, and encouragement. The labor has to come from the "grass roots," tapped into local resources, and unique to a specific area. This *Press* can always be utilized, as long as you give us "6" months notice! Contact GSF/Rose.

TO MULCH, OR NOT TO MULCH ...

Many studies have taught us that the garlic has a positive cultural response to organic mulch. We recognize that it helps in weed control by limiting weed seed germination, keeps the garlic root zone at a more constant temperature and below 90°F where garlic stops growing, prevents evaporation by allowing additional moisture at the root, and prevents wind and water erosion. And incorporation of the mulch is a great way to feed the microbes.

On the down side, we can list the time of application and high cost of the material, potential of future problems with weed seed (residual for future or immediately) requiring hand work, and rodent (voles, mice, etc.) condominiums, but in the garlic. Mulch prevents most mechanical cultivation and harvesting, and, in a very wet year, can keep the soil too wet and cool. If you're in a high wind location, you'll be constructing snow fence or "freezing down" the material.

The principle is to cover the ground with a porous material to trap air to act as insulation and to act as a

barrier to the sun and water—maximum depth of three inches. Leaves should be shredded, and the walnut (*juglans*) and oak (tannic acid) avoided. Leaves of straw should be fluffed.

The question is, "When to mulch?" I checked the literature and found the complete spectrum of answers and very little research. Mulching too soon can have a negative effect by not allowing the ground/plant (clove) to cool down (harden off) and prepare for the cold temperatures to come. Mulch too late and you lose most insulation value and run into adverse field/weather conditions. Here in the north country, we wait until the frost has returned and cooled down the soil, and by mid-November the mulch should be applied.

The moon isn't made of cheese and we don't live in a perfect world. I know gardeners and farmers who are doing things very differently from the above, and I'd like to invite any reader to respond to any of the issues of mulch and we'll continue the topic in the *Press*. (D.S. com.)

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. e-mail: gardunk@yahoo.com (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.

When garlic is chopped into tiny pieces or is crushed, most of the cysteine sulfoxides are transformed into thiosulfonates. Heating the crushed garlic at boiling temperature for 20 minutes in a closed container caused complete conversion of the thiosulfonates to diallyl trisulfide and lesser amounts of other sulfides; however, after boiling in an open container for 20 minutes, 7% of the thiosulfonates were retained, but 97% of the sulfides had evaporated. Cooking in whole milk in an open container caused even more rapid loss of alliin (only 0.5% remained after 10 minutes), but 70% of the sulfides formed were retained, even after 40 minutes, presumably by the milk fat. Sir-frying chopped and smashed garlic cloves in hot (near the smoke point) soybean oil for 1 minute in a Chinese wok retained about 16% of the sulfides in the oil, but no alliin remained (Lawson, 1993). Microwaving single 5-6-gram whole cloves a 650 watts revealed that alliinase was completely inactivated in 30 seconds, while methyl-specific alliinase (see Section 3.2.5) was completely inactivated in 15 seconds (Lawson & Wang, 1994).

In attempting to determine the flavor compounds produced when sliced (thiosulfonates formed) or whole garlic cloves are cooked, a series of studies has been published on the volatile compounds formed upon cooking garlic by a variety of methods, such as oil-frying (0.33 hour), baking (1 hour), boiling (1 hour) and microwaving (0.5 hour) (Yu et

al., 1993, 1994b, 1994a, 1994c). Most of the studies used a temperature of 180°C, 40-60 volatile compounds were identified, with 165 found for boiled garlic. Baking and microwaving garlic slices produce the highest amount of volatiles (0.2%), while boiling and baking whole cloves produced the least (0.0008-0.004%). Diallyl disulfide was found to be the dominant volatile formed in all of the studies. Diallyl trisulfide was abundant only in the baked and microwaved garlic slices. In oil-cooked slices, significant amounts of allyl methyl disulfide, vinylidithiins, and, interestingly, allyl alcohol were also formed.

In studies on heating pure alliin in water (180°C, 1 hour) it was found that 1% volatiles were formed and that they consisted mainly of allyl alcohol (67%) and acetaldehyde (21%) (Yu et al, 1994c). Addition of glucose to the heated alliin generated a meat-like flavor consisting mainly of allyl alcohol and 2-acetylthiazole (Yu et al, 1994d). Heating of aqueous *S*-allyleysteine produced a larger variety of volatiles, mainly 2-methyl-1, 4-dithiepane (a 7-member ring with two sulfur atoms), allylthioacetic acid (allyl-S-CH₂COOH), diallyl sulfide, and diallyl disulfide, but almost no allyl alcohol.

Recently, a novel sulfur compound, *S*-allyl thiohexanoate, was identified when chopped garlic and a vegetable oil were heated together, due to the reaction of diallyl disulfide with a dienal (Hsu et al., 1993).

3.1 and Growing

The USDA's Economic Research Service has reported that in 1999 each resident of this country consumed 3.1 pounds of garlic. That's 3 times what we ate 10 years ago, and 6 times what we ate in 1970! If we do the math on the 3.1 pounds/person times the 2000 census figure of 285,000,000 population, that makes 883,500,000 pounds! To meet the demand, acreage devoted to domestic production jumped from 16,000 acres in 1989 to over 41,000 acres in 1999 (that's 64 square miles).

The GSF would like to take full credit for the new figures, but we all know that a number of factors have contributed to the growth. The cuisine of America has changed. Medical research continues to document that the

garlic has some interesting effect on a variety of body processes. Pill pushers sell hundreds of millions of dollars of pills. More cooking schools, mass media (magazines/TV) and restaurants are featuring garlic.

Most seed catalogs, gardening magazines, and winter farmer's conference programs include something on the garlic. And, while Christopher Ranch in Gilroy can talk about 60 million pounds on 4,000 acres in production (when disease doesn't get the crop), we all know that there are many thousands of small producers and gardeners putting beautiful and flavorful garlic into their local communities. This has been our focus and function. 3.1 pounds and growing (D.S. com.)

HAGAR THE HORRIBLE



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1-26

Excerpts from
*The Science and Therapeutic Application of
Allium sativum L. and Related Species*
by Heinrich P. Koch and Gottfried Hahn

Introduction

Even though this book has been out and available for a while (1996), it remains one of the true classics of modern garlic research. It is available through:

WILLIAMS & WILKINS
351 West Camden St.
Baltimore, MD 21201-2436
ISBN 0-683-18147-5

Though a bit pricey, it would be a great accession for your local library or anyone truly interested in research. Following the intro to the 1st edition is a quoted section on cooking and its effect on sulfur compounds. As an enticement and for review purposes, we have liberated this excerpt as an example of some of the work of these fine scientists. (B.D.)

Preface to the First Edition

"We remember the fish, which we did eat in Egypt freely; the cucumbers, and the melons, and the leeks, and the onions, and the garlick: But now our soul is dried away: there is nothing at all, beside this manna, before our eyes." (Numbers 11:5-6)

Onions, leeks, and garlic are without doubt among the oldest crops of mankind which have been used as medicinal plants, spices, and food. It is still unknown when man encountered garlic as a wild plant for the first time and where this doubtlessly interesting event occurred. It certainly was not the plant which has been cultivated since ancient times and which is now available in so many hybrid variations. We do not know the original form of garlic, which is botanically classified in the genus *Allium*, which comprises more than 600 species. But it did exist and it motivated populations of ancient cultures to use this plant and its bulb to improve the taste of their hunted prey and gathered fruits. Then, when people established settlements, they cultivated their most treasured seasoning plants close to their dwellings. In the meantime, they had discovered how to use garlic as a remedy for various ailments. Thus, the cultivated species which were grown in southern Europe and in the countries of Asia were developed through thousands of years, and are still included in many gardens.

The attitude among people toward garlic, however, was often divided. It certainly evolved during the development of urban settlements. Not everyone appreciates the "strongly aromatic bulb" and the dishes prepared with it. This rejection is not unique to our day; even Luidprant, the Bishop of Cremona, who served as the ambassador of Otto The Great at the court of Byzantium, took offense at the garlic odor of the Byzantine emperor. Often we are affected in the same way. If we have consumed garlic, we do not perceive that our fellow man has also "enjoyed" this food. However, if he has eaten it, we turn up our noses. Large parts of populations of southern European countries and Asia are proponents of garlic, whereas in central and northern Europe garlic is more or less shunned. Perhaps the reason for this is twofold; not

only does the original species emerge from the Southeast, but its medicinal effectiveness is better known and appreciated there than in the North. The inhabitants of these areas with a warmer climate may have been dependent upon such a disinfectant spice. In the meantime, many people, even in the northern regions, have recognized the value of garlic. In studying the literature published during the last decades, it can be seen that intensive studies have not been limited to chemists of natural substances. Physicians also experimented with garlic and what was considered at the beginning of the century to be controversial medicine is today accepted by many practitioners. We now know that garlic is not only a spice but also a medicine of high value.

Medical research on garlic as a remedy for high blood pressure and arteriosclerosis has increased for several years. Therefore, it may be useful to summarize the currently known facts about garlic and its diverse applications in a monograph. The number of "senior citizens," the older people of our society, is steadily increasing, putting more and more emphasis on diseases of old age. In addition, the population has become more and more health conscious, a very gratifying aspect. The trend toward self-medication, especially with plant medicines, cannot be overlooked. Many of the remedies have a long tradition in folk medicine. Yet, here a deficit of information exists, not only with the customer who becomes confused by the media, but also the pharmacist and the practicing physician who wish to advise their patients appropriately. Therefore, encouraged by numerous inquiries by the general population, the pharmaceutical industry, and decision-makers in medical professions and health administration, we have attempted to evaluate the information accumulated over the years and to make it available to interested parties in a scientific summary, yet in a readable form and perhaps even entertaining at times.

— Heinrich P. Koch and Gottfried Hahn
(Vienna and Cologne, March 1988)

* * * *

**3.2.6.5 Cooking and Its Effects on
Garlic's Main Sulfur Compounds**

Since garlic is more often eaten cooked rather than raw, the effects of cooking on its organosulfur compounds is a common question and an important concern. Because heat inactivates enzymes, it is no surprise that heating garlic cloves inactivates alliinase and hence prevents the formation of allicin and other thiosulfates. Boiling unpeeled whole cloves for 15 minutes completely inactivates alliinase; however, before the alliinase is inactivated, about 0.5-1% of the alliin is converted to allicin, possibly due to the cloves' bumping into each other, which is then rapidly converted mainly to diallyl trisulfide and to smaller amounts of the di- and tetrasulfides. Thus, even boiled cloves give a garlic breath odor when eaten (Lawson & Wang, 1994). Boiling cloves for 20 minutes also causes hydrolysis of 12% of the γ -glutamyleysteines to S-allyleysteine and S-1-propenyl cystein, and a similar loss of alliin without production of S-allyleysteine.

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THE HOLY EARTH

First | The Statement

"So bountiful hath been the earth, and so securely have we drawn from it our substance, that we have taken it all for granted as if it were only a gift, and with little care of conscious thought of the consequences of our use of it; nor have we very much considered the essential relation that we bear to it as living parts in the vast creation.

It is good to think of ourselves—of this teeming, tense, and aspiring human race—as a helpful and contributing part in the plan of a cosmos, and as participators in some far-reaching destiny. The idea of responsibility is much asserted of late, but we relate it mostly to the attitude of persons in the realm of conventional conduct, which we have come to regard as very exclusively the realm of morals; and we have established certain formalities that satisfy the conscience. But there is some deeper relation than all this, which we much recognize and the consequences of which we must practice. There is a director and more personal obligation than that which expends itself in loyalty to the manifold organizations and social requirements of the present day. There is a more fundamental cooperation in the scheme of things than that which deals with the proprieties or which centers about the selfishness too often expressed in the salvation of one's soul...

I do not mean all this, for our modern world, in any vague or abstract way. If the earth is holy, then the things that grow out of the earth are also holy. They do not belong to man to do with them as he will. Dominion does not carry personal ownership. There are many generations of folk yet to come after us, who will have equal right with us to the products of the globe. It would seem that a divine obligation rests on every soul. Are we to make righteous use of the vast accumulation of knowledge of the plant? If so, we must have a new formulation. The partition of the earth among the millions who live on it is necessarily a question of morals; and a society that is founded on an unmoral partition and use cannot itself be righteous and whole."

[Written by Liberty Hyde Bailey in 1915 upon his retirement as
Dean of the NYS College of Agriculture at Cornell University.]

RAISING GARLIC FROM BULBILS

by Paula Simmons Green

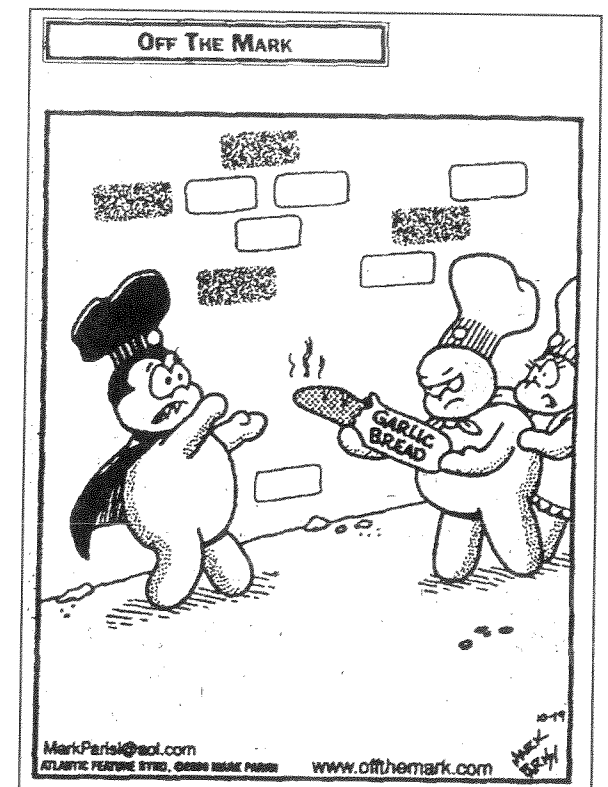
"Hardneck" garlics produce a tall stalk with what is called a "scape" capsule at the top. Ordinarily, these are cut off soon after the scape is visible, or in some varieties, as soon as the stalk makes one circle as it curls. The scape, at that time, is tender and can be eaten as a vegetable like asparagus, or in stir-fry dishes.

If the scape is left on as the garlic matures, it does, in most instances, cause the production of a smaller bulb than if it were removed.

But, if the scape is left on to the maturity of the garlic, the group of small bulbils that it contains can be planted in the fall (in mild weather areas) or in the spring (in areas of more severe winters). Since they are so small and the leaves so tiny, I prefer to either plant in early spring, or start them indoors in pots, for transplanting out about the time I would plant green onion sets.

The raising of mature garlic from bulbils will take two years, but it is a good way to drastically multiply your harvest of a favorite variety of hardneck garlic. My first start of the Special Idaho garlic was only from bulbils. That was all that was available, as the producer had a crop failure and was not able to offer planting stock.

Plant your bulbils about an inch deep. The young plants will look just like grass at first, then more like green onions later in the year. Let them die down in late summer, taking care not to lose track of them. You can either harvest them and replant them (further apart) in the fall, to make full-size garlic by the following summer, or you can leave them in place. The only disadvantage to leaving them in place is that they will be too close together, unless you have planted them originally at the spacing you would use for mature garlic, which would be very wasteful of space. At one year growth, the little bulbils will have made round bulbs about marble size, more or less, depending on growth conditions and variety. The next year they will be about normal garlic size and will have separated into cloves. At that time they would be harvested as usual with garlic and dried and cured.



Thank You, Emeril!

For years, a Brother Fire Fighter has told me I had to watch this guy Emeril, BAM. Not having a television, I wasn't aware of what I was missing, BAM. Then one day, BAM, while visiting my friend, BAM, I got to watch the Food Network and Emeril, BAM. Interesting man: ¼ entertainer, ¼ teacher, ¼ chef/athlete, ¼ bullshit.

I wrote to Emeril, sent him a *Press*, and asked if he'd care to submit something for publication. He graciously sent me these recipes, a list of the 6 restaurants he owns, and a form letter that told me how entertaining he was and that his food was just as good.

Thanks Emeril, BAM.

(D.S. Com.)

Emeril's Essence Creole Seasoning

(also referred to as Bayou Blast)

2½ tablespoons paprika
2 tablespoons salt
2 tablespoons garlic powder
1 tablespoon freshly ground black pepper
1 tablespoon onion powder
1 tablespoon cayenne pepper
1 tablespoon dried oregano
1 tablespoon dried thyme

Combine all ingredients thoroughly.

Yield: 2/3 cup

Emeril's Southwest Seasoning

2 tablespoons chili powder
2 teaspoons ground cumin
2 tablespoons paprika
1 teaspoon ground coriander
1 teaspoon cayenne pepper
1 tablespoon garlic powder
1 teaspoon crushed red pepper
1 tablespoon salt
1 tablespoon dried oregano

Combine all ingredients thoroughly.

Yield: ½ cup

QUALITY STANDARDS

As we turn the loop toward Spring, I offer these quality standards for pre-bulb garlic marketing. Those of you who aren't considering these products, I suggest you take a look. (I put these together for our Marketing Cooperative as suggested quality and packing guidelines. D.S. com.)

Garlic Greens

These are the leaves of the tender, immature garlic plant—usually fall-planted whole bulbs. They are harvested at ground level, bunched (2" across at base), banded and rinsed. The leaf needs to be tender, approximately 8"-10" tall. New leaves will regrow up to two additional times. *Mid-March to mid-April.*

Garlic Scapes

The scape should be cut from the plant when tender, curled, and no longer than 20" total and/or 3/8" diameter. Harvesting in mid-day sun is a good cultural practice. They should be rinsed, drained and bagged (10# max per carrot bag), and refrigerated. These are living vegetable matter and must not dry out or mold. Monitoring in storage is necessary, and yellowing scapes must be removed.

Garlic Scallions

Fall and Spring planted cloves will grow a scallion (immature plant) that should be harvested when the plant is 12" above ground and 14" total. The entire plant is dug, outer leaf or two peeled down and off, and rinsed clean. The roots should be left on and free of dirt. FLO is putting 6 scallions per bunch, banded and packed per 12 into poly bag or waxed box with liner. No bulbing at the base is acceptable, since this will be tough and inedible. No scallion should be less than 3/8" diameter.

ATTENTION ORGANIC GROWERS

USDA published the Organic Rules on 21 December 2000 in the Federal Register (Vol. 65, No. 246) and, as recorded in Section §205.204 "Seeds and Planting Stock Practice Standard": (a) The producer must use organically grown seeds, annual seedlings, and planting stock." Exceptions to this rule are then listed as (1) nonorganic stock can be used: if a desired variety is available as organic, stocks have been treated with materials included in the National List of Synthetic Substances allowed for use on organic crops, a temporary variance has been granted, when stock must be treated as federal or state phytosanitary regulation. All producers are encouraged to contact the USDA or their state or private certification organization for clarification and interpretation. The National List of Synthetic Materials is included in the same Federal Register at Section §205.601. (D.S. com.)

Disease wipes out 2000 California garlic crop

Gilroy, the self-proclaimed Garlic Capital of the World, has no garlic.

That's according to a recent report from the *Knight-Ridder wire service*, which indicated that the southern Santa Clara county city lost its popular crop due to white rot - a fungal dis-

ease that has long-lasting spores and is spread by infected garlic seed or by contaminated soil.

Steve Koike, a plant pathologist at the University of California, said that the disease - which affects both garlic and onions - can stay in the soil for up to 30 years.

Planting and Harvesting Garlic with a 3-Point Hitch Cultivator

by Keith Stewart

In my early garlic planting days (not so long ago) I used dibbles and crowbars to poke holes in the ground to drop the cloves into. Later, I tried a hand plow to cut furrows a few inches deep. For the last two years I've used a tractor-drawn cultivator for both planting and harvesting and have been very pleased with it. Here's how my system works.

I plant garlic in late October in bands of three rows with 18 inches between each row. Between the bands I leave 40 inches. This larger space between each three-row band enables me to straddle the bands with a tractor when planting, mulching and harvesting, and in so doing, avoid compacting the soil where the garlic is growing or is going to grow. Forty inches also leaves enough space for a riding mower. Two or three mowings between the bands helps with weed control in late May, June and July.

A rear mount 3-point hitch cultivator is attached to my old Allis Chalmers tractor. Stabilizers are used to prevent the cultivator from swinging to one side when it hits a rock or encounters uneven ground. Keeping the rows and bands parallel (though not necessarily dead straight) is important in this system and the stabilizers help to this end. The cultivator is set up with

three narrow shanks—one in the center and the others 18 inches on either side of it. If you like to cover your garlic with about three inches of soil, as I do, the shanks should be set to cut four or five inches deep. After one pass down your field you have three parallel rows to press your cloves into. When this is done, either rake the soil lightly over the cloves or walk down the rows and use your feet to cover them.

When cutting the next three rows it is important to have some way to ensure that they will be parallel to the first three. I do this by having someone walk in front of the tractor with a long spacer stick (usually a 1x2) that they hold parallel to the ground. Every six feet or so they measure from the outside of the front tractor wheel to the outer row of the previous band. A deviation of two or three inches to either side is okay, but not more than that.

There's a horse farm less than a mile from us with a good supply of bedding straw that the owner is usually happy to get rid of. After the garlic is planted, I use that farmer's tractor and New Idea spreader (which blows out the rear) to cover the cloves with three or four inches of straw with some manure mixed in. Again, the tractor nicely straddles each three-row band. Immediately after planting, we place

short stakes every 15 or 20 feet to mark the center row of each band. When spreading the straw the stakes give us something to take a sight on so that we don't end up riding on top of the planted cloves. The mulch helps to keep the weeds down somewhat, but by late May and June there's always plenty of hand weeding needed—but only between the rows and a few inches to either side, since the riding mower is used between the bands.

When harvesting time comes, usually late July or early August in our area, the Allis Chalmers and the cultivator are put to good use once again. This time the cultivator is set up with six shanks, each one off-set three or four inches to either side of a row of garlic. The tractor straddles a band of garlic and the shanks of the cultivator cut through the soil about six inches deep and a few inches to either side of the bulbs. After one pass with the tractor (sometimes two passes are needed), the garlic can be lifted out of the ground without much effort and with virtually no damage, providing your rows are parallel and you drive carefully.

For sure, there's still plenty of hand labor required in the system just described, but the 3-point hitch cultivator—a simple and relatively inexpensive implement—speeds things up and eliminates a lot of elbow grease.

[Keith is a Certified Organic Vegetable farmer from Westown, NY, in the Hudson River Valley.]

Knoblauch Knotes

While his team, the New York Yankees, went on to win the 2000 World Series, it was a frustrating season for our Chuck Knoblauch (the GSF's adopted "professional athlete"), Man of Garlic. Normally a key defensive player on the second sack, his throws went wild, and he signed himself off for a few weeks of R&R. Turns out that he injured his wrist on 23 April while swinging a loaded bat in warm-ups, then re-injured it and a shoulder several other times. Then he was diagnosed with tendinitis and inflammation in his elbow. So, he was either totally falling apart or the Yankee Press Staff is disorganized or intentionally misleading us!

R&R meant returning to his team's Physical Therapy Development Center in Tampa, Florida in early August for evaluation and cortisone shots. He didn't have much choice. He had 12 errors in the first 43 games. Then, in a game on 15 June, he made 3 errors, 2 for runs (that eventually cost the game), his fans booed him, and he walked from the game to the locker room in the 6th inning. There was some consideration of retirement, but not for long. Knoblauch is a

tough competitor, and Chuck returned to his team that went on to win another championship. Congratulations again, Chuck. *[Knoblauch is the word for garlic in the German language. D.S. com.]*

A Little Smell of History

From *Everyday Life in Babylonia and Assyria*,
H.W.F. Saggs, 1965.

In a chapter on the Amorite city of Mari, in the 2005-1894 BCE period, page 61: Amongst vegetables in common use at this time were cucumbers, peas, beans, plants rather like cress, and garlic.

And on Page 176, on Babylon in the rule of Nebuchadnezzar (605-562 BCE): Among the fruits and vegetables eaten may be mentioned onions, garlic, gherkins of various kinds, peas and beans, lettuces, radishes, pomegranates, figs, grapes and apricots.

— Louis Van Deven

Thoughts From the Field

Written by Shane LaBrake, Farm Manager, Eco-system Farm, Accokeek Foundation, for his CSA Newsletter

We harvested the garlic crop last Friday. We have included a bulb of "fresh" garlic in your SHARE today. The crop is in its "curing" phase now, and so we'll hold off a couple of weeks until we distribute more garlic. We "cure," i.e., dry, the garlic for about three weeks to enhance its storage ability. You will notice the bunches of garlic hanging from the barn rafters at your pick-ups. Once "cured," this variety of garlic will keep its quality through at least October and perhaps well into the New Year.

The garlic harvest wasn't on last week's work agenda. I expected to wait at least until late this week to harvest. I consider the first of July to be about the time that it should be ready—though it varies every year. As I reviewed previous year's records I saw that the range for harvest dates over the past four years was 22 June through 10 July. Thus last Friday, the 23rd, was within the range and a random sample of six bulbs on Thursday confirmed that it was mostly ready.

Still—I would have preferred to wait a few more days. But 1.1" of rain on last Wednesday night (on top of 3" from the previous eight days) created extremely wet conditions in the field. I feared a complete loss of the crop if I had left it in the field any longer. As I pulled each of the six bulbs on Thursday, they came out of the thick straw mulch layer with a loud "sucking" sound. The soil under the mulch was super saturated and anaerobic, in other words—it stank. "Putrefaction" is the technical term for such soil conditions.

A conflict of thoughts emerged in my mind. Instinct told me it was a bit too early to harvest the crop. Under normal, i.e., drier, conditions the bulbs would still stand to get larger if left in the field yet a few more days. These were not normal conditions, though, and other instincts suggested the crop would rot if left in the ground any longer.

I slice the bulb in half horizontally to confirm maturity. The cloves should be well formed with a distinct gap between them and the center stalk that characterizes a "hardneck" variety. The gap—which should measure the thickness of a paper matchbook cover—was clearly present in the samples that I pulled on Thursday, albeit a tad on the narrow side. The cloves, though, were extremely moist—more so than I ever remember seeing—and were weak in pungency.

I suspect that as with other vegetables, overly wet weather conditions can dilute flavor. Certainly onions are sweeter and less pungent when well watered, and tomatoes are less sweet when there is too much rainfall as they are ripening. I suspect, too, however, that the "curing" process will restore some of the distinct pungency that I look for (perhaps I should say—crave) in really good garlic.

The crop looks surprisingly good after all. The harvest went very fast this year. Ross Perot would have liked a tape recording of the sound each bulb made as it was gently but firmly pulled from the muck—a "giant sucking sound" could be heard. Usually we would work the soil loose around the bulbs with a digging fork to make it easier to lift them out of the ground—assuming it is drier. That step was unnecessary this year. Once we cleaned the bulbs—some 1700 of them—and graded them by size and quality, we then bunched them into lots of 25. I was truly pleased and surprised to see how well the crop had fared.

This was a crop that went into very wet ground last November 01 and came out of wet ground last Friday. It almost did not get planted because the ground was too wet to work most of last fall. And yet it seems to have done well enough anyway.

Those of you who are members from previous years will likely remember my fondness for this crop. It is not just the flavor of garlic, although that is special to me. Everything about this crop is distinct. The cloves that we plant are saved and selected from bulbs that we harvest now—a process repeated for centuries. It takes practically nine months to mature—longer than any other crop that we grow. All that waiting and watching and wondering.

And when it comes out of the ground and gets sorted and bunched and hung into the rafters to dry, I am wondrous again. I can't explain it, but every year when I hang those bunches up high to dry, I get really giddy and happy and excited like a kid who has just hit his first home run (not that I have ever hit a home run to know exactly what that would feel like, but I suspect it is something similar).

Both the planting of the cloves in the company of friends on a sunny and crisp Fall day, and then the harvest on what is always a hot summer day—are filled with a special ritual. In doing so I feel a spiritual connection to all the peasant farmers world round who year after year have stopped to plant and harvest and weed and water this crop that gives so much excitement to our palates. In many cultures, garlic is a food that is indeed revered. Ancient Roman warriors ate raw cloves for strength before going into battle, and slaves building the pyramids staged the first recorded labor strike when denied their daily ration.

Here in the US we have been slow to catch on to the special appeal of "the stinking rose." It has always been associated with the kitchens of Italians and Jews and some other Northern European immigrant households—and Mexicans and South Americans, too.

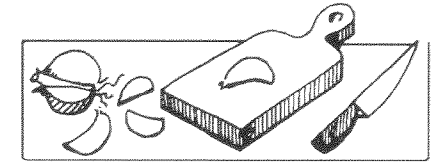
One of those groups gave us the quote "garlic is as good as ten mothers." Sadly, it was shunned in most "WASP" kitchens. Only recently has this started to change. On Sunday night, I overheard on the evening news that the "consumption of garlic in the US has tripled in the 1990s." Finally—we are starting to get the idea. Garlic is good food.

Maybe what is so special to me about garlic is that it connects us. It connects families around food. It connects fellow garlic lovers in a unique and crazy way—witness the Garlic Festivals that are going on around the country. It connects us to the past. And for me, it connects me to many special people in my life—to my host family in Venezuela who first introduced me to garlic in 1978 and with whom I still share a love of great food that always begins with garlic and olive oil; to my friend and mentor David Stern in NY; to all of the former apprentices who have "acquired" a deeper appreciation for the clove; to my friend Cindy in California with whose daughter Ann I planted some of my Maryland garlic in Monterey two years ago and who sent me some rare heirloom cloves last September that I will harvest this week; to former volunteer Martha Orling who is growing her own crop now; to my friends in Syracuse—Carl, Karen and Joanne—and to many, many others there and elsewhere. And now—to all of you. It is truly a unique crop in the way it connects us.

Well I am out of space and out of time. The sun is coming up and there are veggies to pick. Until next week—peace and good health to all of you.

Comments? - Feel free to send them to us via e-mail
Shane: ecofarm@accokeek.org
Skip: caskauffman@accokeek.org

La Cucina



*Chef's Suggestions:
To crush, mash, slice or dice ...*

In the previous article we took a close look at how to peel garlic. At this point, the next step is the preparation of the clove ready for cooking.

I will talk about a few preparation techniques that we use in the restaurant. For this preparation you need a cutting board and a knife. The right knife to use would be a "Chef's Knife," not too big, about 7-8 inches. (Of course, every knife will do the job, but this is the most appropriate; your job will be faster, safer and more precise.)

Before you cut the clove you need to think about the preparation of the dish. If you think about it, a small bulb like the garlic can be used in many different preparations and cuisines.

The first is not really chopping or slicing, but **crushing** the clove with the flat part of the knife in one hand and using the other hand to apply the downward pressure. This technique can be used without peeling the garlic. Or you can simply cut the clove in half or in quarters. At this point the garlic is ready for use. You can use it to roast meat or fish and in sauces or dressings. With this preparation you can remove the garlic at the end of the cooking time and the flavor won't be too strong.

Another technique is to **slice** the garlic. The knife should be very sharp. Just cut thin slices from the peeled clove. I like to use this technique when I do pasta or fish sauces. This technique can be used with a big garlic clove. Cook them crispy and use as a garnish in your salad, vegetable or pasta. This technique can be easily done, with a mandolin. There are different models available; one is a board made from wood or plastic with an adjustable blade. *[The mandolin is a kitchen tool with a built-in stationary knife, and the vegetable moves across the blade(s), the slices falling below. Our common kraut cutter is a mandolin. D.S. Com.]*

From these slices of garlic (especially the big ones) you can make more fancy cuts, like little sticks or diced. They all need to be perfectly cut. At this point the garlic is used not only for flavor, but also for presentation.

The last technique is the **chopping** of the clove. When I use this method, I make sure to use it in moderate quantity. When garlic is chopped fine, it releases a lot of

flavor that can cover all the other ingredients. I use this technique for cooking sauces and sauteing vegetables, or for dressings.

To chop the garlic, start smashing the clove with the flat part of the knife. At this point, hold the tip of the knife with the left hand, and with the right hand, the handle of the knife (for right-handed cooks). Start chopping the garlic moving the blade in a vertical and horizontal way. You can alternate the chopping with dragging/pushing the garlic with the flat part of the knife's blade and continuing to chop, getting finer and finer pieces.

You can also start crushing the clove with the back of the knife. Just slice the clove with the knife upside-down. At this point the clove is partially chopped, then proceed as explained above.

Another tool is the mortar and pestle, an antique technique, and it will do the perfect mashing. More modern is the food processor. It will work well and fast on a large amount of garlic, but it will not work with one or two pieces.

ROASTED GARLIC DRESSING

- 2 ea. garlic bulb, whole
- 2 ea. anchovies filet
- 2 tsp. mustard
- 1 cup olive oil
- ¼ cup white vinegar
- ½ ea. lemon (juice only)

For a smooth creamy dressing, use a blender. Roast the garlic in the oven until tender. Squeeze the garlic out into the blender cup, add anchovies, mustard, vinegar and lemon juice. Turn the blender on and add the olive oil until the dressing is smooth.

[Alberto was featured on the Food Channel on 13 Feb 01, 10:30 p.m. Not having a TV or Cable, I have yet to see it. D.S. com.]



The Olive and Its Oil

A brief summary of the olive and its relationship to human societies in the Mediterranean region to which *Olea europaea* is native, with a focus on oil production and ancient mills and presses used during antiquity.

Part IV of IV: Pressing and Oil Separation by Muriel Calo

Pressing

The objective of the olive press is to extract as much oil as possible from the crushed olive mass by reducing the volume of the mass to a minimum. The olives have been placed into woven bags for pressing, and the force required to press the olive mass is tremendous. It is ten times greater than that required for grape pressing, because the oil is viscous and adheres to the olive pulp. A slow and regular pressing is required for maximum oil extraction. The problem of the pressing force and resistance to this required force is the major constraint in designing effective pressing equipment.

There are two main sorts of presses used in traditional oil extraction: the more primitive beam press, and the more sophisticated Roman screw press. Evidence indicates that the beam press was the prevalent type prior to the adoption of the screw press.

The simple beam press operates on a lever and counterweight system. The earliest (6th century BCE) and most simple relies solely on a sac of stones acting on the beam lever as the main provider of force. The other end of the press beam is anchored either in a wall recess or is attached to a crosspiece supported by two wooden uprights which provide the necessary resistance (Hadjisavvas 1992). A rope wound around a third beam with a crank may replace the stone weight, although the level of force that may be administered by this method is limited, and over time the rope wears down or breaks under the stress.

Survey work in three broad geographical zones in Northern Africa—the Tripolitanian Gebel, the high-steppe region of central Tunisia, and the Tripolitanian pre-desert—has identified a large number of lever presses, all of the type associated with a fixed windlass mounted on a counterweight block. The press floor was defined by a circular channel cut into the stone for the exit of the oil. A stack of baskets of olive pulp would be placed on the press floor within the channel, a wooden lid placed over the top and the press beam allowed to rest across the top. Even before pressure was added to the beam, oil would begin to ooze out of the baskets. Subsidiary channels would carry the exuded oil and water to tanks located in front of and below the press floor. Archeological evidence from the Kasserine region in Tunisia suggests the baskets would have been at least one meter in diameter, judging from the size of the stone channels. Agricultural lands in this region were densely planted with olives (Mattingly 1993).

An improvement was made on the simple lever press with the introduction of the beam and screw press in 100 BCE. The screw press carries the counterweight (the lever beam) rather than the workers of the press, making this a safer system to operate. The problem of sufficient resistance persists here—the press structure

itself may provide the necessary resistance through the weight of stone beams (in Libya, norther Syria), wooden beams (Italy, Provence, northern Africa) or anchored in the wall or the ground (middle East, northern Africa) (Amouretti 1986).

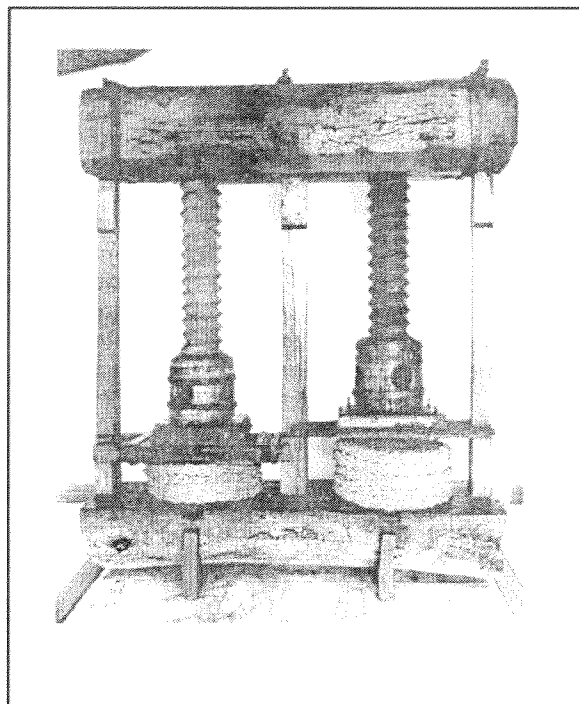
The components of a beam and screw press from the island of Corfu, Greece, dating from the Hellenistic period, are described by Sordinas (1971):

A large roughly dressed [stone] monolith with a flat top is the base. The top surface has a shallow circular gutter [to capture the oil]. On either side of the gutter there is a slot running through the stone base [which] serve for the insertion of two large beams 2.5-3 meters tall [and about 1.25 meters apart].

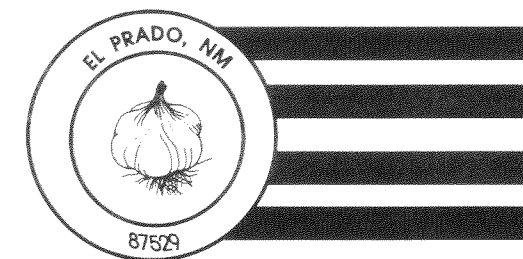
The uprights were secured *under* the stone base with iron wedges. The upper half of the uprights is carved into a crude screw. The platen of this press consists of a one-piece rectangular beam with two large holes on either side enabling the platen to move up or down the two uprights. The drawing down of the platen to press was effected by means of two large wooden nuts screwed into the uprights. The nuts were made of hardened oak and were about 0.75 meters in diameter. They were turned down with the aid of long curved poles that acted as powerful levers.

Such a press required a minimum of four strong individuals to turn the nuts on the press after stacking about 12 containers at the center of the stone base and lowering the platen to rest on the pulp containers. It became widespread starting in 100 BCE in Italy and spread to Syria, Athens, and French Provence by the 5-th century CE. Moroccan simple beam presses were entirely replaced by the beam and screw press in the 3rd century CE (Amouretti 1986).

The Romans are credited with the invention of the screw press in 75 BCE, which spreads through most of the Mediterranean from 1-100 CE. The screw press is the only traditional press that will eventually become mechanized and built in metal. The direct action screw press consists of a base of stone or wood that can be much smaller and lighter than the stone base of the beam press—this is so because the needed resistance to the applied force is in the opposite direction. Two wooden tall uprights (7.75m) support a bulky crosspiece whose purpose is to hold the long and powerful wooden screws, and to provide the counteractive weight to the upthrust generated by the downward movement and pressure of the screw. The crosspiece contains the screw or screws made of a long piece of oak and it contains four cylindrical side openings for the lateral insertion of the levers used in their manipulation (Sordinas 1971). Although variations on this form were developed, this type of screw press became the dominant form in the Mediterranean region where it has persisted for centuries now. It has also spread in the Middle East and is used in grape as well as olive pressing (Amouretti 1986).



HOW THEY GROW GARLIC IN . . .



Cassim Dunn had just come home from trout fishing when I called him for this interview in early February. A self-employed tile and stone contractor and amateur horticulturist, he and his partner, Mary Ann Matheson, have been growing garlic for the past 10 years. El Prado is 15 miles north of Taos, New Mexico, 4 miles from the Rio Grande River, on the west side of the Sangre de Christo (Blood of Christ) Mountains.

Their land, at 7,500 feet, is between zones 4 and 5. Their soil is a shallow clay loam riding on top of a crusty dense gravel, with a pH of 7.5. Martha and Cassim work their garden by hand as non-certified organic growers and produce for themselves and some local sales. Cassim also produces and packages vegetable seed (as Del Montes Seed Co.), which is marketed in his community. He has a keen personal interest in scientific experiments and genetic preservation of our food crops. He is an active member of Seed Savers Exchange.

Ten years ago a friend gave him a Korean garlic and he's now keeping track of approximately 30 varieties. Cassim plants in October after applying and working compost into his beds. Planting by hand in an 8" x 8" grid, 80% topset/20% soft-neck, approximately 1,000 cloves, adding new varieties and dropping inferior ones each year. After the ground freezes 3" of mulch leaves are put atop the beds and covered with chicken wire to keep them held down from the winter wind. The garlic is up in March, followed shortly by a native buroweed (Morning Glory Family), which is kept in check by hand work. "We've learned to live with this plant and have a healthy respect

for its will power. Twice each season we pull it out to keep it from strangling the garlic and going to seed." Cassim has fabricated some specialized tools as well. Their other pests are the deer that browse through occasionally munching off the tender green tops.

The garden soils are rich from organic management, so no additional fertilizers/nutrients are needed. Cassim has tried foliar feeding, but without the use of a spreader-sticker, it all ran off! Some scapes are left on to produce bulbils (for distribution, trade and seed savers), but most are removed and consumed. The July harvest is hand dug with a spade fork, partially cleaned by hand rubbing, then bunched and hung in the barn for 3 weeks. The garlic is then clipped, put into brown paper sacks, and stored in breathable wooden boxes in a cool place in an adobe shed.

Martha and Cassim eat garlic daily—sliced raw with hot peppers in a sandwich for lunch, added chopped to stirfries, and food processed along with hot peppers, salsa and cooked red beans to make a delicious bean dip. Their favorite varieties (taste, storage, and market) are "Loiacono," "Music," "Acropolis," and "Vilnius"—all of which are available through the Seed Savers Exchange.

[I met Cassim at the Tulsa "Garlic is Life" symposium and we had many wonderful hours of talking, learning, and eating together. He is one of the growers from California, New Mexico, Oklahoma, and New York who have exchanged garlies, starting a small variety trial. D.S. com.]

Garlic Eating Carpenter

An elderly carpenter was ready to retire. He told his employer-contractor of his plans to leave the house-building business and live a more leisurely life with his wife enjoying his extended family. He would miss the paycheck, but he needed to retire. They could get by.

The contractor was sorry to see his good worker go and asked if he could build just one more house as a personal favor. The carpenter said yes, but in time it was easy to see that his heart was not in his work. He resorted to shoddy workmanship and used inferior materials. It was an unfortunate way to end a dedicated career.

When the carpenter finished his work the employer came to inspect the house. He handed the front-door key to the carpenter. "This is your house," he said, "my gift to you." The carpenter was shocked! What a shame! If he had only known he was building his own house, he would have done it all so differently.

So it is with us. We build our lives, a day at a time, often putting less than our best into the building. Then with a shock we realize we have to live in the house we have built. If we could do it over, we'd do it much differently. But we cannot go back.

You are the carpenter. Each day you hammer a nail, place a board, or erect a wall. "Life is a do-it-yourself project," someone has said. Your attitudes and the choices you make today, build the "house" you live in tomorrow.

Build and Grow Wisely!

Garlic Is Life / TULSA x 2

Darrell Merrill did it again! From across the country, again, good folks came to gather, discuss, explore and expand our understanding of garlic. Author and grower Chester Aaron, in his inimitable style, graced us with his presence, being joined as Guest of Honor/Keynote Speaker with our own David Stern and John "Lloyd" Harris, the founder of the Lovers of the Stinking Rose out of the Berkeley, CA, area from the seventies.

Expanding on a successful first-year format, a growers round table was added into a two-day speakers conference preceding the public festival. I was fortunate enough to arrive a day early and have the opportunity to go to the Tall Grass Prairie Preserve, where the buffalo truly roam. This great project of the Nature Conservancy was great fun and very interesting in its program of learning about the essential restoration project of prairie and grassland that is maintained in a pasture environment of never-tilled prairie where bison have been reintroduced, and which thrives on a program of controlled burning that enriches the protein value of the grasses and maintains a balanced ecosystem.

All in all, it proved to be the perfect balanced agenda involving issues of medical research, updates on the development of true seed, and culinary and cultural methodologies.

COMMENTS FROM TULSA FESTIVAL

Friday—Today morning came early. Warm winds rustle outside as well as within. There's a certain unmistakably congenial quality about the "Garlic Is Life" festival. Folks coming from all over the country to share parts of their lives, their trials and concerns and to share the joy of their connectiveness. As if garlic itself were the hub of this great wheel upon which we spin and turn through the seasons, we all in humbling ourselves before the bulb have found a new source of power as the fire of its breath meets the tips of our tongues. Even though the differences that latitudes and altitudes provide, from elevations to the three shores we have come to pay homage to this food, this medicine, this force we know as garlic. Our oral histories begin long after the wrapper leaves had sealed their genetic memories. There is so much we don't know. Whispers over the last 5000 years remind us of the bulb's integrity long established. Though the fertile cycle of its seed is lost from our collective remembrances, surely there were times, glacial epochs wherein the entrance to this entombed genetic memory was sealed long before the pharaohs laid down beside them. Even our earliest intuitions beckoned to this bulb, trusting in its protective sheath to guard us in the transition from this life. A sulfurous companion through the mystery of the afterlife, early on we acknowledged its preeminence in survival and its necessity for a quality of life that became part of our understanding of healthfulness itself. We peel back these wrappers like the pages of an ancient document, translating the fiery bite of the dragon into mystical tales of other worlds and engendering courage and vigor and survival itself. We can trace the rise and fall of civilizations of late and witness the magic and mystery that this quixotic food imparted. The poor man's treacle indeed, governments and aristocracies suffered and died as a result of forgetting the need we have of this great purifier. It is as if this gentle humility with which the peasantry and wandering gypsies and nomadic groups travelled and lived was the result of the selfless admittance of the need we have for its precious fire. Outlasting plagues and famines, earth changes and even-centered through global climatic change, there are few places to which the garlic has not been brought. Indeed, it is a holy communion in ritual as we peel back our indignities and in passionate fervor peel the clove to impart and engage in the mystery of life itself. As if admitting of our need, selfless and eyeless in Gaza or elsewhere, we submit ourselves and surrender ourselves into its protective arms. Not for the giddiness of strong liquors or the gorging of tastes, but lasting only in the moments of its fiery acquisition and digestion do we understand the fuel of the soul through the journey through now. Around the bend before us as well as ahead, we are soothed and strengthened. Out of the medicine bag of our group memory we have retained the connection that is religion itself. We bind ourselves to it as its sulfur bonds with us.

The public festival has done much to educate the folks of Tulsa about the world of garlic, its many varieties and strains. Darrell, as a staunch supporter of Seed Savers Exchange, has been a great champion of heritage agriculture. This year, Kent Whealy came and did a marvelous slide show on the work of that organization over the last twenty years. It is an organization that we should all support in principle as well as in financial and membership areas.

The *coupe de grass* for the public was held the night before the festival, when a number of great local restaurants were brought together for a public dinner. Each unique cuisine displayed garlic entrees, soups, salads, and desserts and intermingled professional scientists, growers and the warm hearted folks of the big town of Tulsa.

Thanks, Darrell, for all you do and continue to do. Plans are already in place for the third annual conference with a slight change in timing as it will move into early November, which allows more of us time to finish fall chores and get our planting done. If you haven't made the journey yet, keep this time period open, for it surely will be bigger and better this year.

Garlic

Our garden crops have come from far
Where other climes and peoples are.
From mountain valleys of Peru
The snappy snap bean comes to you.
In Mexico sprang Indian corn.
In India the cuke was born.
The cabbage hails from Europe's sea land,
Hot weather spinach from New Zealand.
But there's one peppy garden plant
We natives mostly do not want.
When long of yore its fumes arose
And helped to shape the Roman nose
A favored food was garlic then
For fighting fowls and fighting men.
They mixed it with the warrior's hash
And with the rooster's morning mash.
It kept the legions primed for war
Till fear of Rome spread near and far,
And doubtless made game fighting cocks
Of pacifistic Plymouth Rocks.
A shrinking rabbit fed up thus
Would lick a hippopotamus.
Hence sprang old tales of sudden death
From dragons slaying with their breath.

— Bob Adams, 1925

Archeological recovery in Cyprus shows a widespread use of beam presses and screw and beam presses anchored into the wall, but no evidence of screw presses (Hadjisavvas 1992).

Oil Separation

A great deal of hot water is used in the pressing process to help draw the oil off the olive pulp. The resulting mixture of oil, olive juice and water must be separated to achieve the final product. This is accomplished through the principle of gravity. All solid materials sink to the bottom of the collecting vat, and the oil will separate from the water and float to the top. Different methods were used for oil separation, and these are reflected in the archeological record by the kinds of containers that are excavated at olive processing sites. The simplest method is skimming the surface of the water by hand or with a ladle; this method was practiced all over the Mediterranean region in traditional olive press operations until very recently (Hadjisavvas 1992). This method is indicated in the archeological record by the presence of simple oil collection containers and jars. A slightly more sophisticated method involved the drawing out of the water through a hole at the bottom of the receptacle container. This is indicated by the presence of stone or ceramic separation vessels with these draw-out holes. This method was used in Cyprus at least from the Cypro-Classical era, judging by the presence of such separation vessels (most often of dense calcarenite stone) discovered at numerous sites (Hadjisavvas 1992). A third separation method involves conveying the floating oil into a lateral receptacle through an outlet at the rim of the collection container. Such receptacles are confirmed in the Cyprian archaeological record by the presence of two receptacle tanks joined together at the rim: one such find was made in the Kouris river valley and dates to the 7-9th centuries CE. This method was also widely used in the olive oil producing regions of North Africa, Campania, North Syria and Upper Galilee (Hadjisavvas 1992).

A second stage of purification is required after the initial separation to remove impurities from the oil. The oil is left to

settle in settling vats often provided with a concave depression in the center for the collection of the impurities. Such settling vats are known as far back as the late Bronze age in Cyprus (Hadjisavvas 1992). This method of purifying the oil was widely practiced until recently: large stone settling tanks with 2 x 1.5 x 1.5m dimensions have been found in abandoned oil mills from the 18th and 19th centuries on the island of Kerkyra (Foxhall 1993). Since large quantities of hot water were used in the pressing to draw the oil off the fruit flesh, great volumes of water, juice and oil emerged from the press. Several tanks of the size cited above were necessary for any sizable mill.

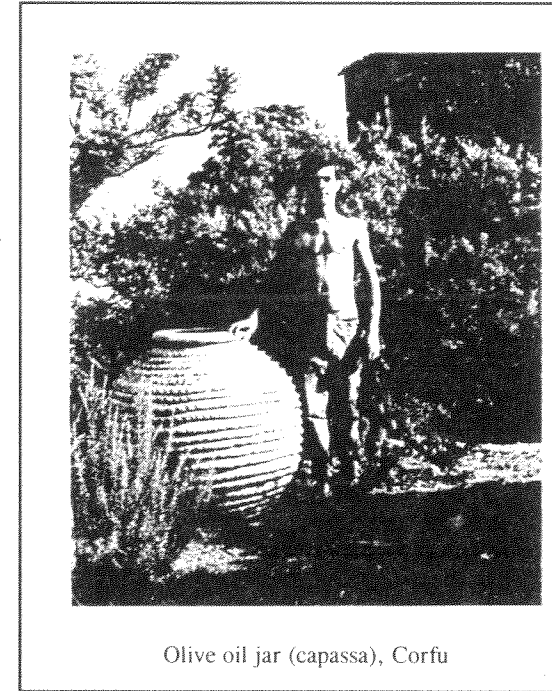
Although olive oil today is produced principally for human consumption, in Antiquity olives and olive oil of different grades and processing techniques were valued for a multitude of uses that included perfumes, body lubricants, medicinals, and lamp oil. We must also remember the important cultural and religious associations of the olive for most Mediterranean civilizations. It is a remarkably versatile fruit that promises to remain an integral part of traditional and changing Mediterranean cultures.

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Olive oil jar (capassa), Corfu

Astoms Forlag.

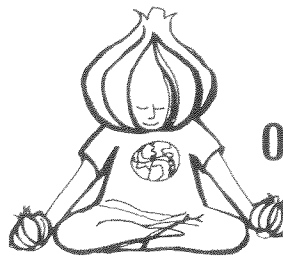
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It's against the law to eat garlic & go to the movies!

The town of Gary, Ind. may be best known as the most dangerous municipality in the U.S., but town officials have put their collective foot

down when it comes to bad breath. It's against the law here to go to a movie theater within four hours of eating garlic.



OUT OF MY HEAD

Bob Dunkel

connectiveness, the dependant nature of all life, and to give thanks. Yet it is shameful how often “we” forget to remember the need for seed, the need for community, the need to be a part of the process that is life.

If only we could really see the world like an ant farm, without walls and windows. A community of chemicals intermingling and therefore not isolated and totally unique at all. If only we knew the extent to which we do create our circumstances to grow and learn. Then, when we talk of love or God or culture or of garlic, we would be self-effacing. We would feel the eyes of the world looking at us between the layers of glass and oxygen and dust - that fragile ecosystem on which we all depend.

Garlic is the moon in cycle. We are simultaneously a season of garlic. We see the young upstarts about us, the disintegrated wrapper of old clove materials, the roots and leaves of mid-life struggle and it is everything, everywhere, evaporation, reformation, purgative and constant yet. Like the waking grabbing at dreams that squish and disappear, we grab for the fruit, the bulb of life, and it breaks into cloves, wrappers scatter like leaves in fall, and a seed finds its way home to the earth, to this thin slice of life inside the ant farm—where infinity sits for a portrait and the landscape is white. What makes this field of white along Flint Road different is me. Inseparable from all else flat and white this winter, I feel my heartbeat beneath the snow.

My love goes out to all of you in this season of quiet rest.



“There is life in the ground;
it goes into the seed;
and it also, when it is stirred up,
goes into the person who stirs it.”

— Charles Dudley Warner

Our garlic grows just west of Flint Road, named after Flint Creek, which flows just to the west of this area. It is a shale-bottomed waterway that fed many mills a century or two ago, from which flint stone was readily acquired. The railroad is gone and being converted to a biking and hiking trail, and on both sides of the creek small parcels of old farmland and woods still survive. The snowcover has been steady this year. Like the dowser’s twitch or the feeling fingers of a shiatsu practitioner, my eyes automatically key to the point along this stretch of white where, unseen, the garlic rests. A community, it lies buried like ancient ruins, entombed in earth yet not the least bit dead. I wish I could view the labyrinth of its millions of roots intertwining and working like the ant farms I had as a child. A real slice of life extruded out of another world it seems. Were my imagination able, I could travel those minute pathways and watch the magical transformations first hand. In the sterile laboratory of the book world I read recent explanations of soil chemistry, cation exchange and root absorption, and like paper thrown to fire, a tiny ash of understanding fades and disappears from my consciousness.

Explanations are sterile, the chemistry I can’t see or feel, and somehow after 50 years of living I am no more able to understand than love or arguments about religion and politics. The randomness of life is all pervasive, like the color of oceans, varied and never at rest. There is no steady state that I come to recognize or take comfort in. Patterns overlap and signify that there are relationships among all things. But if you were wandering the earth trying to feel your root path home, you could be like the fool that searches 27 days for the moon that’s round. The fruit and flower are only a part of a process. We feed upon these transient forms, feel magnetized to their energies and take them within us to give ourselves strength. Yet we are no different than they, composed of these same odd chemical forces and mixtures. We are the ant farm, we are the garlic bulb, in the same illusion of “looking” to understand.

The only truth is change. The second law of thermodynamics, nothing created or destroyed, just a huge swap meet where consumers and vendors exchange again and again, both roles and barter. We that grow with the garlic through the year are the ant farmers. Our gift is the interaction and the imagined perspective of change on a daily, momentary level. We know this bulb is our fruit, and in its season we use it as we do other foods. We create cultural dishes and medicinal formulas with it and do our ritual exchanges. However, like the starter mixes, the cultures for yogurts, we know we must save some out to continue the process to be “seed” for our journey on.

I read about the immigrant waves that came to our shores and how they sewed seeds into hat bands and coat seams and about caravans and trade routes, and it seems clear that we create values. We take with us those survival tools and foods and medicines that become invaluable to us and trade them and share them. In supermarkets we are desperados out to beg, borrow or steal foods we cannot take the time to grow and feel part of. So we erode our values, we lose our cultures, sacrifice time for money to buy things like ant farms and garlic bulbs. But even that is really O.K. as long as we remember our

Two Hearts

We are poor pollinators
Too fat fingers for the tiny work
Only the stubbornness of intent
Reaches into these flowers
To administer change.
Think of corn silk...
Long shining strands exuding
From each would be kernel ...
Surrender to the wind
Give value to the housefly
And glory to the legions of bee!
There still is a place for you and me.
A modified food storage leaf
Think of the artichoke
And dream of the clove. Tho’
It is not there yet and
Between its incarnations.
Wherever, Garlic is garlic!
The lesson is connectedness.
One taught in capillary action
The pulse and pull of gravity
In water and its transformations.
A story of evaporation
The losing of self, and survival,
As far as finger and leaf tip
From the heart pounding closeness
Of life itself, we are.
In chance circumstance
To the unwary eye, we forget synchronicity
Our dance with now, and ever ...
We do have two hearts
They, like bulb and bulbil lie
Opposed like thumbs
Transitioned into purposefulness
And the mandate of Utility.
One is for the stethoscopes
And the fear and flight response
The other is for lovers ...
A swift crack of stalk
Sends bulbils scattering
Over the half dry half frozen riverbed
Few will find their way
To the mother’s warming earth.
But Deep within the scree of granite
The bulb stirs in its sleep
Perhaps its central membrane cracks
And a magnetism stirs ...
The cloves will rise soon
Green fingers reaching skyward
In this oldest valley
Of a forgotten land far from here.
In a nutshell split and opened
Two hearts like fossils lie

Embedded in the truth of now.
Bulb and bulbil we are then
Green leaves and spiral stalk,
Or softnecked false seedstalk
In the colors of earth and sky,
And magic chlorophyll the elixir of change
In this, the greatest alchemy of all.
I, for one, do not want to change
This understanding of garlic.
My fatter than fat fingered mind
Is not satisfied with
The transgressions of genetic rape.
I’ve seen the heavenly blue morning glory
The rainbow of chard and green ripe tomato.
It is not enough to change without,
To use this false palette to color our greed
And even think we could patent life!
We are lovers, lost feeling
The pounding rhythms of our hearts.
Children, ears against conch shells
Longing for ocean’s sigh and song.
All we touch, we smell and see
Hear, taste and with nape of neck do feel
Is part of us ... but
Somewhere upon this long leaf
Upon this spear like leek form
We are travelling through time.
The ebb and flow of breath
Ferries about these water molecules
Glimpsing the phenomenon
Of green and shining life
Gifted from sun to its child earth.
The tide is turning now
An undertow is pulling on our heartstrings
Attuning us to the romance
That is ours alone.
We are both doe-eyed and dangerous
Beast and beauteous, as we plunder
And pillage and root ‘round for food ...
And as foreign as my gaze will seem
On my knees again, a child at church
I will stare upon this mystery
Become fixed awhile on this bulbil
And play as only a child, to say:
“It loves me, it loves me not”
And fumbling, fat fingers will fall
And begin the unconscious motion
Of mounding earth
Or bringing palms together to pray
That this earth protect this stalk of green
So that love will not be lost!

(B.D.)

We’ve seen the future — and the Future is Food.

— Dr. M. Gaynor, Head of NY Strong Cancer Prevention Center