

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

Garlic

WINTER 2009/2010



#48

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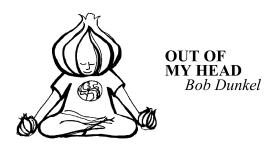
ABDUCTED BY THE C.I.A.

In November of last year I was fortunate enough to be invited to a wonderful food conference. The Worlds of Flavor 2008 conference, held at the Greystone campus of the Culinary Institute of America was focusing on the Mediterranean Rim and had guest chef presentations from North African countries as well as the European countries of Spain, Italy, France and Greece and even some of the smaller island nations. Along with fantastic foods and wines there was beautiful music from Iran and great dancing and fun at the end of the busy days' agendas. I was requested to do a garlic presentation in a general session with a focus on soups of Provence. It was a wonderful opportunity to bring these folks up to date with the grant research project that we have completed and to get a chance to introduce these great chefs to the 10 genetically distinct groups of garlic that is referred to on our website link to Big News for Garlic.

During the conference besides general sessions there were kitchen workshops for smaller groups and I was able to do one with Cat Cora, famed Iron Chef, as well as the amazing Jim Botsakos, a new generation Greek chef from New York City. It was a real treat for me and with it came some wonderful insights for the way the world can be healed by food and food consciousness. Out of mostly small villages, these chefs appeared with a strong message about using local fresh produce and fresh fish etc. One of the presenters from Sicily lamented the environmental assault that the waters of the Mediterranean have suffered and admitted that he had been sourcing fresh fish from afar and having it flown in from less polluted waters. There were no politics at this conference and lots of smiles, as I soon came to realize that there is a real fraternal relationship that occurs between chefs. Their willingness to share and exchange knowledge, as well as their unique tricks of the trade, produced a quality of food and its presentation at a level that I had never experienced.

In my opening statements I complimented the institute for the broad focus that this series has presented as a means of bringing folks and cultures together. They clearly set a new paradigm for a true United Nations that is centered on food and health and not on political divisions and economic distress and inequities. At this point I have to reiterate that I have never really been a culinary person. Lots of garlic yes, but I never made the connection to food art and the creative and loving interaction that these chefs brought to the table. At the end of each evening folks were sharing wine and hugs and smiles and even with the issues of language there was a universal sense of commitment to quality as well as simplicity. On the final day of the conference I was given a spot in the marketplace to do taste trials of the ten garlics and it was met with much enthusiasm and many questions, and enjoyed by all. It was surprising that many chefs thought garlic was garlic and there was not much difference, until they were able to see as well as taste samples of the garlies that had been provided by Noah Gress, one of our growers from the grant and a real advocate for garlic. One chef told me that he thought garlic was garlic until he prepared it and the way he worked with it made the difference. Interesting indeed, but as he tasted the samples he too admitted that maybe there was something to this idea of quality garlic. As I spoke of the importance of that quality and the connection to healthfulness, I realized that we need to make a better connection with food folks as well as the growers we have always connected with. Taking garlic to a new level is part of this venture and we have much to share and learn from these chefs whose lives revolve around good food, good friends and good times. On one final note I would like to express my thanks to the C.I.A. for what they are doing and their continuing emphasis on education. I learned many new and useful terms connected to food preparation and the only suggestion that I could give to these masters was that there is an opportunity to help folks get healthy by folding in fresh garlic at the finishing stage of their presentation.

[Following is a link to the C.I.A website and details of this past conference: http://www.ciaprochef.com/WOF2008/] — B.D.



When Pigs Fly...they need a human hand

Did they scare you with the news of a possible pandemic? How about the idea that a swine/ bird/ human virus could happen naturally? I think for us that are use to cultivating between the lines of our rows of garlic, we read between the lines on this one early on and realized...hmmm, something's up?

Enough on that for now...you will read some action in our Stinky Replies within this newsletter. The focus of this issue is disease, and hopefully you will find the information worth saving. As a new paradigm of healing takes shape, both for ourselves and this Earth that supports us, it comes with a realization that we are part of the process. The age of specialization is finally receding and we are still here scratching our heads because sometimes when we look there are no easy answers, and the ones that are there do not suffice. You know why? We have the answers as much as we have each other and as we all move forward let us be thankful that emerging technologies and the return path back to heartfelt wisdom are coming together. We are also introducing a new possibility for The Press, an electronic version! Read on again and it will all come clearer....

So how has your Spring been? For us it has been the first time in a number of years that our October planting did not raise its head 'til spring really sprung. No 60 degree days in January, no Indian summer or thaws, just a long hard winter that celebrates this return to warmth each day now. It's time to get busy though as we transition into the season of the scape, for there is no escape we all know! We did a trial on 1000 row feet to see what kind of uptake we can get out of nitrate of soda on our smaller garlics with of course control rows also for each. We did this early on as we always recommend not fertilizing very far into May at the latest in the Northeast, so it does not delay scaping.

Also included in this issue is a short review on strategies for weed cultivation. Take a look and get back to us with your experiences. Eventually as I learn more about this cyberworld we are meshing with, I would like to set up a blog and chat type setup on the website www.garlicseedfoundation.info so we can talk about different issues that may be more seasonally oriented. We are getting together the festival lists for this year and there is always some excitement as new festivals come on line throughout the country. What we really need the most though is YOU! We want to know what works and what doesn't in your

garlic production. If you find something new let us know...if you don't like what you read or see from us, we have broad shoulders and, again, this is a new beginning in a sense as we reach out to this great community of garlic lovers and growers and chefs etc.

"The best fertilizer is the footsteps of the farmer..." You are that farmer, a farmer of life's treasures, a farmer of patience, a farmer of compassion for all life. May your Spring and summer be one of growth both within and without and may your garlic heal you, your communities and the world. Be Well!

Again and Again

Just a whisper A knowing thru the trees That winter is on the wane A certain lightness to the breeze... The garlics' sleep, steady and deep Had no peeking sentries No false starts nor stops And now, the lengthened sunlight to seize. Yet 'tis not the sing-songed rhymes That pull the green blades forth Not the splintered grasses that call But a magnetism from another north pole! As the heart only knows the brains design And neurons thru chambers align Should we need another sign, to say Your fullness is assured? While lines twixt poles are blurred Comes forth one last word: Patience. Tools a ready, their sharpness honed Never should one think, one's alone But, given cause to rise and tend These solar sponges toward heaven bend And we my friends are readied too For all the dreams we will pursue To fertilize with feet and eyes And wait awhile, then realize We've danced this dance And know this tune The garlics true love is the moon Whose softened glow gives subtle light While messaging us throughout the night Each day to rise, to find the scape Hidden in the leafy spathe. But long before this crown adorns There's work indeed for many morns As leaves unfold and long to bend To melodies from finch and wren And your sweet voice and gentle hum So soothes these friends that beg you come, For together we this cycle spin Bulbs and heads, again and again

(BD)

Managing Diseases in Seed Garlic: What Are the Options?

Frank M. Dugan and Barbara C. Hellier

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There are four kinds of organisms that cause disease in garlic: fungi, bacteria, viruses and nematodes. All affect garlic grown for seed, and many have the potential to cause disease in the subsequent crop of table garlic. The mere presence of these organisms does not necessarily result in significant disease problems because the growing or storage environment may not be conducive to disease development, arthropod vectors (essential for some viral diseases) may be relatively scarce, or the disease itself may usually be restricted to minor effects such as blemish. For example, the fungus Embellisia allii usually causes little more than slight and superficial skin blotch, but bulb canker can also result. Bulbs infected by Fusarium proliferatum may not exhibit symptoms significantly different than uninfected bulbs, or bulbs may suffer obvious symptoms. In the long run, virtually all pathogenic microorganisms present potential problems, and both producers and users of seed garlic should be aware of management options.

Traditionally, a combination of chemical and cultural practices has been used against bacteria and fungi. Hot water treatments have been used against some fungi (e.g., white rot, caused by Sclerotium cepivorum) and nematodes (e.g., stem and bulb nematode, Ditylenchus dipsaci). Thermotherapy (extended time periods at ca. 37°C) can eradicate virus from a high proportion of bulbs. Fungicides may be helpful if fungi have not penetrated too deeply into bulbs. Bactericidal sprays are sometimes useful, especially if combined with proper harvest and drying procedures. Several viruses can potentially be controlled by timely sprays against arthropod vectors, e.g., Onion Yellow Dwarf Virus, Garlic Common Latent Virus and Leek Yellow Stripe Virus, all of which are transmitted by aphids. White rot is sometimes controlled by application of chemicals (e.g., DADS, diallyl sulfides) that stimulate germination of sclerotia prior to introduction of the crop.

Each control method involves challenges. Hot water treatment can be effective against the stem and bulb nematode, but some experimentation is necessary as varieties of garlic differ in temperature sensitivity; and in any case specialized equipment is necessary to heat large volumes of water and maintain these volumes at a precise temperature. Hot water treatment is unlikely to completely eradicate white mold. Thermotherapy usually results in high mortality of bulbs, and is usually combined with meristem tissue culture, which is time consuming and requires specialized skills and equipment. Growth of some fungi and bacteria is promoted by thermotherapy, hence meristem culture is sometimes conducted independently of thermo-therapy. Even systemic fungicides do not eliminate deep-seated fungal infections in bulbs or cloves. Effectiveness of sprays against arthropods is usually contingent on precise timing relative to arrival of these vectors, something that is often difficult or impossible to achieve. Resistance to chemicals can be a problem with some fungi and bacteria, e.g., resistance to benzimidazole fungicides in Penicillium species. Also, the efficacy of chemicals can be compromised if bacteria or fungi gain access to wounds, typically caused by arthropod pests or during harvest of bulbs. The application of biostimulants such as DADS can be highly successful, but achieving correct soil depth is critical, and they must be used at least one season in advance of planting.

Although some disease agents, such as Embellisia allii, have very narrow host ranges (essentially only garlic), others such as the onion-garlic race of the stem and bulb nematode have a rather broad host range, including various Allium crops, miner's lettuce, celery, parsley and other plants. Alternative hosts are an important consideration in formulating management strategies.

Because each of the various organisms causing disease is unique with regard to its environmental requirements and its "strategy" for causing disease, it is difficult to make general recommendations for disease control. However, because some disease agents are fairly specific to onion or garlic, avoidance of ground cropped to Allium species within

the past few years is usually helpful against many fungi and bacteria. It is also good to avoid spring-planting of Allium crops in close proximity to over-wintering Allium fields that might harbor diseases and vectors. Pre-planting or post-harvest fungicidal dips, used according to instructions on the label, can be effective, and chemical treatments are available for some bacteria. Except for effects on vectors, viruses are not controlled by chemicals, and since garlic is clonal, viruses tend to persist once a given line of garlic is infected. Because many diseases or pests require highly specific management practices, persons investing substantial resources in production or utilization of seed garlic are encouraged to obtain comprehensive, illustrated guides, such as the Compendium of Onion and Garlic Diseases and Pests, or the Onion/Garlic section of the UC IPM Pest Management Guidelines (see References). These cover insect and mite problems in addition to diseases, and give current management recommendations for specific pest and disease problems.

There are a few reports in scientific literature about putative resistance in garlic to viruses or fungi. These reports are sometimes conflicting. In general, red-skinned varieties in Allium are more resistant to some fungal diseases (e.g., Embellisia in garlic, Colletotrichum in onion) than are white-skinned varieties, although there are exceptions.

An option utilized by large-scale, commercial producers for disease control is tissue culture. Although some producers have kept tissue culture protocols as proprietary, published protocols are available from governmental agencies and in scientific literature. Starting with disease-free planting "seed" is standard practice for clonal crops such as potatoes, and for commercial garlic in some major production areas. However, tissue culture is expensive, requiring a laboratory and skilled staff, and garlic does not command a commercial market of the same magnitude as that for potatoes. One biotech venture applying such technology to garlic production in Ontario has been postponed. Could this company or other laboratories eventually make a living by producing disease-free seed garlic for small-scale garlic producers? Economies of scale are important to the success of any technological enterprise. It is plausible that suitable economies of scale could be attained via cooperative action on the part of small-scale growers and one or more tissue culture laboratories. Organizing such a venture would be formidable, but cost-effective production of disease-free seed garlic is a tantalizing goal.

Acknowledgements. We thank Maria Jenderek and Phil Simon for thoughtful comments on the manuscript.

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DISEASE UPDATES

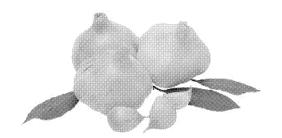
Data released in 2006 by Gent et al shows that the tospovirus Iris yellow spot virus has spread from India(1999) to Slovenia(2000) to US Colorado(2002) to Australia and Italy(2003) to Japan and US Georgia, New Mexico and Washington(2004) and to Chile, Peru, Spain, Tunisia and US central Oregon(2005) and Reunion Island, Guatemala, US Texas and New York(2006). In the United Sates the projected impact at that time was \$60-90 Million.

Current IPM recommendations include crop rotation; role of bulbs, seeds and transplants in disease development; biologically-based pest management systems; and cultural and biological management practices to reduce and replace conventional thrips controls...more info at http://www.alliumnet.com/index.htm

California White Rot Research. U.C.Davis has posted results of 2005-2006 garlic white rot trials at www.cefresno.ucdavis.edu . Based on observations from 2004-2006 fungicide trials, researchers concluded that in-furrow treatments are more effective in limiting disease symptoms than drip or foliar applications. "It is clear that a multi-layered approach will be required to minimize the impact of white rot on garlic production. Applied, prior to planting an allium crop, biostimulants (garlic powder, DADS-diallyl disulfide) have been shown to effectively reduce sclerotia populations in the soil(90%), achieving disease control similar to methyl bromide fumigation, but as soon as a susceptible crop is planted, the disquickly reaches economically damaging levels...Alternative approaches also need to be considered, such as soil solarization, flooding and deep cultivation...this disease spreads quickly. Preventing infection of clean fields is crucial."

On the upside, Fred Crowe of O.S.U. is experimenting with low rates of garlic juice applied through irrigation. Single high rates of diallyl disulfide (DADS) provided 98.99% reduction in sclerotia, the form of the fungus that persists in soils for years. The repeated applications of garlic juice at low rates(1ppm) via irrigation water is using a commercial preparation of garlic juice from The Garlic Company in Bakersfield, CA.

Basically, the use of stimulants can be traced from work by John Coley-Smith, who was able to show a special relationship between stimulants leaking out of allium roots and the germination response. Once germinated, if the fungus fails to find an onion or garlic root to infect, it dies without reproducing. Crowe says, "To use the stimulants against the fungus, we apply the juice or DADS when onions or garlic are not in the field, tricking the sclerotial populations to germinate, then die off. The white rot fungus only grows on allium species." Applications of stimulants must happen when the fungus is most responsive(temps between 50-70 degrees) and the soil not too wet or too dry. In one of his latest trials, Crowe is applying a garlic juice concentrate to wheat planted in white rot infested soils. One challenge is to push the stimulants deep enough in the soil to attract all threatening sclerotia (ie. 4-6" may not be enough as sclerotia may be 8-12" deep. So stimulants need to get to plow level) White rot does best under cool conditions and does not grow in soils above 72 degrees F. Thus, it is overwintering in allium crops that are most susceptible and so growers may be able to reduce risk by later plantings.



National Garlic Day

Holiday Insights 4/24/09

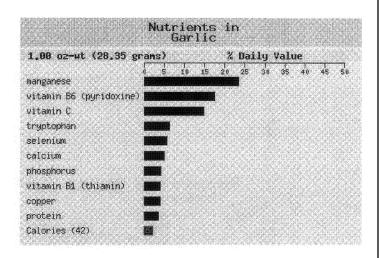
When: Always April 19th

National Garlic Day promotes the many uses of Garlic. And, there certainly are many uses. Its a vegetable. Its' a herb. It is used in recipes around the world. Garlic has ben used medicinally for thousands of years. And, Garlic is believed to ward off evil spirits. About the only negative thing you can say about it. is that it can negatively affect an otherwise romantic evening.

As a medicinal herb

- Phytochemicals in garlic are believed to provide protection against heart disease and cancer. Specifically, stomach and colorectal cancers.
- Helps to fight off colds and flu.
- · Lowers blood cholesterol levels.
- Reduces the buildup of plaque in arteries.
- IJsed as a treatment for acne and warts.
- Used for toothaches

Celebrate National Garlic Day by using it heavily in your meals and snacks today. Spend some time researching its medical benefits. You might find you are adding more garlic to your menu everyday.



AN OVERVIEW OF WEED MANAGEMENT

The best approach to an organic weed management program is prevention wherever possible. Basically, anything that reduces weed seed pressure will be advantageous. This means especially making sure that they are controlled before they go to seed. Doing a little research or getting to know your weeds is also recommended.

One of the challenges that weed control presents with garlic is due to the fact that the leaves do not effectively shade the ground, even at a mature stage. The perennial weeds like bindweed or nutsedge are best avoided if you can choose areas that do not support their growth. Sow-thistle, horseweed and groundsel, which become easily transferred by windblown conditions are best avoided also. For most of us these conditions are not easily avoided as we deal with smaller plots and neighbors who may not have these type concerns. This is one reason that an open eye in the fall, before planning where your garlic will be grown, will help in your overall strategies for weed control. For the backyard grower and those on some smaller plots especially in the western U.S., soil solarization can be an option. Soil solarization traps sunlight beneath a layer of clear plastic, and the resulting heat can significantly reduce weed seeds. It can also take out the vegetative structures of perennial weeds. In general, however, this works better on annual than the perennial weeds. Seedlings of weeds like johnsongrass, burmudagrass and bindweed are controlled, but not the plants. To try this you must prepare a smooth seed bed so that the plastic lies as close to ground level as possible. It is also advantageous to water or irrigate the ground before laying down the plastic because a wet soil

conducts heat better than a dry one. 1.5 to 2 mils thick plastic is the general recommendation.

Another method that one can employ if they have an irrigated plot is to pre germinate weed seed before planting the garlic. This is like the stale seed bed method that is more common here in the northeast. In either case, the idea is to let as many weed seeds as possible germinate and then use shallow cultivation to eliminate them within two weeks of emergence. There are also some limited organic herbicides and some folks have had some success with flaming the field before the garlic emerges, but in either of these cases there is little effect on grass weeds. Deep plowing has also been a method that has some advantage but is not recommended more often than every 3-5 years as one can also in the process, bring up more weed seeds that are deeply buried.

Cover cropping is a cultural practice that is both efficient and that provides benefits to crop production. As long as annual weed seed does not catch hold in the fall and intermingle in the cover crop, the cover should not only add organic matter to your soil but it crowds out a lot of the area that could be utilized by weeds if given the space and conditions to germinate in the early spring. Faster growing winter cover crops like Merced rye/ winter rye, white mustard and Indian mustard are high on the list of recommended covers. It is important to monitor the newly emerging cover to make sure that a weed problem is not developing along with the intended winter cover crop, that could prove problematic the following spring season.

Weed management this time of year usually means cultivating with your tractor. The first cultivation should cut weeds with coulters or knives, and then later cultivations can throw soil against the plants, which will bury the smaller emerging weeds that are still trying to come on. The goal should be to cut the weed seedlings as close to the seed row as possible without disturbing the crop. With garlic, care should be taken to not get so close as to cut some of the lateral roots. In the row weeding is always the biggest challenge and is most regularly accomplished by hand weeding, after attempting to smother with cultivation.

Finally, for the gardener or small grower there is the option of using mulch. Mulch can be applied after the ground freezes in the wintry parts of the country, or after the crop is planted. For larger plantings, mulch would be expensive to use as well as problematic if conditions in the spring are wet. One should certainly weigh the advantages of weed control with mulches against the added work that could also include removing the mulch in the spring to allow the garlic to emerge and then to pull it back in after the plant is 4-6 inches high. Also, when it comes to harvesting the garlic, the mulch can create issues and pretty much eliminates the ability of digging or lifting or undercutting with machinery. There is not one easy way to deal with the elimination of weeds and yet many studies have shown that failure to keep the garlic under management for weed pressure is one of the biggest reasons that garlic does not develop the size that is possible. So, it may be too late to employ some of these methodologies this year, but get out there and do the best you can and begin to plan a more effective strategy for next year. (BD)



BOOK REVIEW:

The Complete Book of Garlic:
A guide for gardeners, growers, and serious cooks
By Ted Jordan Meredith
c 2008 Timber Press, 332 pages, U.S. \$39.95

It is really nice to see a new book on garlic coming out, that is both current and well researched. Though the title may seem a bit pretentious, Ted has really pulled off a wide perspective on this world of garlic, which is a part of all of our lives. The book is divided into two basic sections. In the first part, the author takes us through the economics of garlic, as well as cultural and natural history, while also taking a look at tastes and cuisines. From there we get a brief overview of therapeutic benefits and a generalized take on the health value of this odiferous bulb. The remainder of this first section is devoted to lengthy explanations of the plants structure and functions, explaining reproductive development, bulb formation and a synopsis of the yearly care cycle for growing your own garlic.

As anyone following the long and ongoing debates about the taxonomy of garlic may know, there has been theory upon theory and a constant sense of changing perspectives about a crop much older than our written histories. Knowing that there is a link between genetics, climactic changes and location and soil types there has not been a clear view of the story of garlic. Ted helps give a glimpse of this debate and educates us about the way this process has unfolded. The book also includes some of the studies that involve out S.A.R.E. grant and the DNA research work done by Gayle Volk in Fort Collins, Colorado. That for me is really a plus, as it allows us to get the message out that growing garlic is not about the name that someone, cleverly or not, placed upon it, but about identifying certain parameters to finding a productive garlic for your area as well as being able to extend your storage through winter by growing different groups of garlic and not duplicating the same garlics. This is an interesting part of the book, then that explains subspecies and speculates upon how they may have developed. Ted concludes part one of the book with a look at garlic diseases, pests and a short course on garlic chemistry.

Under the Title: The Essentials, part two of The Complete Book of Garlic is what really sets this work apart. Although the first section has a number of striking photos of garlic, part two is almost a photo essay, in that this section details the ten types of garlic with wonderful photos within each grouping of a number of cultivars and their scapes as well as bulbs. This is where one will come into a greater understanding of the principles that we are introduced to in earlier parts of the book. By looking at the colors of skins and wrappers, and bulb shapes and sizes it is much easier to get a clearer picture of what garlies we may be growing now, or that may be in a marketplace or may even be a desirable one to add to your collection. We thank Ted for his contribution to the world of garlic and the book is available on our website as well. Though not the most affordable book for these tough economic times, coops and small grower groups may be prompted to purchase and share or it would be a valuable addition to your local library system.



ONIONS AND GARLIC: an old tale

I found this wonderful childrens book on eBay and thought it was a tale worth retelling for our group. In many ways it parallels some of our current economic policies. The book itself was done in 1996 by E. Kimmel and illustrated by Katya Arnold. Onions and Garlic is a universal tale found all over the globe. One version taken from the Talmud was called The Knight of Onions and The Knight of Garlic.

There once lived a merchant with three sons. Getzel, the youngest earned the nickname "The Fool" and had run the business into the ground by being too kindhearted and trusting. He often sold his goods for less than their value. Exasperated, his father bans him from sales and puts him in a small room to do bookwork. Getzel was bored and stared out the window at the ships heading off to the horizon. Finally he approaches his father with a proposal, that he give him something of very little value and let him take a small vessel and sail away. Though the father really loved the young son he let him sail the next day and gave him one large sack of onions for his voyage. After a long journey to islands where he is laughed at for being more of a farmer than a merchant, he is caught in a violent storm and the ship sinks and he finds himself clinging to the sack of onions. When he awakes on the shore of a small island and as he looks around he sees that all along the beach are sparkling stones which prove to be diamonds! After filling his pockets he heads off to find if there is any life on the island.

He finds a small village and they offer him soup. As he is in a kitchen with the man cooking soup, he tastes the soup and thinks that though it was good it was very bland. "Have you tried adding onions to your soup?"

The cook replies "What are onions?"

After pulling out an onion and letting the cook taste the new treat he is taken immediately to the King, who offers him anything to trade for these wonderful onions. He asks for a sack full of diamonds. The king says that they have no value to them and he can help himself.

Getzel sails home a hero and his father is well pleased. The two other brothers watch from the wings and hatch a plan: they load two ships with garlic, thinking that if they loved the onions they would really go wild to taste garlic. Finally they arrive at the same small island, show the garlic, which no one has ever seen or tasted and are taken to see the king. They approach the king and tell him they have something exciting for him to taste and show him the garlic.

"This is wonderful indeed!" replies the king and offers a handsome reward.

The brothers ask for one hundred sacks of diamonds and as before the king states that the diamonds have no value, but that his servants would load their ships with the most valuable thing in the kingdom. Months pass and the two brothers arrive back home. The father rushes to the docks to meet them and peaks into the cargo hold to see what they have returned with and finds — bags and bags full of ... onions!

Stinky Replies

Swine Flu: Masks and Bras

What do you have better than boneset and elderberry for swine flu? Honeysuckle and forsythia?? Have you ever heard a public official say boost your immune system? What are your favorite immune-modulators. I'd myself graze the garlic with all those other herbs, too.

Have you any samples of face mask? They say the new virus is so small that the masks are useless. But what if we had a double layers mask with antiviral aromatic herb between the layers. Could the aerosol in the mask help??? I doubt it. But???

Believe it or not, I'm gonna give myself a ramp chest rub, and prove how people repellent, if not viral repellant, it is. Which brings up another wild idea for males, small bras into which garlic could be inserted.

All the talking heads on TV and radio seem to approve Tamiflu and Relenza for the nuflu, even though the same talking heads are saying that it is a brand new virus. Until clinical trials with the new virus, we can't really say that Tamiflu, Relenza, elderberry, garlic, homeopathics, honey-suckle, or forsythia are efficacious. I suspect that the food farmacy is safer but less efficacious, but don't know until they too have been clinically compared. Actually until trials, we can't be sure that Tamiflu and Relenza aren't like some vaccines, causing more harm than good. And that could possibly be true even for certain immunomodulating foods, maybe even garlic. But if the potential pandemic portends, I'll start with the garlic and elderberry, even if I have the more expensive Tamiflu or Relenza on hand, which seems highly unlikely. I'm getting pretty good at staying at home, but I am packing for Arkansas. After that maybe I'll become a homebody.

James A. (Jim) Duke, Fulton, MD

Health Issues

I mix 8 oz. Each of organic apple cider vinegar and organic honey with 8 cloves of peeled raw garlic in a blender then store in a glass jar in refrigerator for 2 weeks. When I take a tablespoon of this mixture in the morning with some juice (usually cranapple), my arthritis pain is greatly reduced during the day and when I have checked my BP before and after, that reading is slightly reduced.

Anonymous, Yahoo mail

It is with sadness that we pass on this email. Our condolences to Joy and family:

I just received word that Steve Wrathall co-founder and organizer along with his wife Joy Powell, of the Southern Vermont Garlic and Herb Festival, passed away at age 52 from a heart attack last Friday (4/3/09). Joy asked me to pass this along.

John Conway, Mud Road Farm

Recipe to Remove Heavy Metals

Heavy metal poisoning is rampant. It is a major cause of hormonal imbalances cancer, thyroid problems, neurological disturbances, learning problems, depression, food allergies, parasites, etc., etc

This is a great recipe that is not only easy to make but also really yummy! It is truly a healing food.

One friend suffering from high blood pressure due to mercury poisoning had her blood pressure return to normal after eating 2 teaspoons of this pesto daily for only a week. So, whether you need to detoxify heavy metals from your body or just wish to use it as a preventative measure, 2 teaspoons a day is all you need to take. This pesto has now become a regular in my diet. Enjoy!

4 cloves garlic

1/3 cup Brazil nuts (selenium).

1/3 cup sunflower seeds (cysteine)

2 cups packed fresh coriander (cilantro, Chinese parsley) (vitamin A)

2/3 cup flaxseed oil

4 tablespoons lemon juice (vitamin C)

2 teaspoons dulse powder

liquid aminos

Process the coriander and flaxseed oil in a blender until the coriander is chopped. Add the garlic, nuts and seeds, dulse and lemon juice and mix until the mixture is finely blended into a paste. Add a squirt of Bragg's to taste and blend again. Store in dark glass jars if possible. It freezes well, so purchase coriander in season and fill enough jars to last through the year.

Coriander has been proven to chelate toxic metals from our bodies in a relatively short period of time. Combined with the benefits of the other ingredients, this recipe is a powerful tissue cleanser. Two teaspoons of this pesto daily for three weeks is purportedly enough to increase the urinary excretion of mercury, lead and aluminum, thus effectively removing these toxic metals from our bodies. We can consider doing this cleanse for three weeks at least once a year. It is delicious on toast, baked potatoes and pasta.

Anonymous, Yahoo mail

Black Garlic





Flickr: protogamett

That's black garlic. Ancient mystics claim it grants immortality. I don't know about that, but Black Garlic.com says it has twice as many antioxidants as raw garlic and contains a cancer-preventing compound called S-Allylcysteine.

It's made using a special heated fermenting process. After 1 month, the garlic turns black and the flavor changes. It becomes sweeter with a molasses-like richness that melts in your mouth and doesn't stink up your breath. Very cool.

I've never had black garlic, but now I'm intrigued. Have you eaten it? Do tell, do tell!

Wake up and smell homegrown garlic

Article from: The Australian
Asa Wahlquist, Rural writer January 27, 2009,

MANY Australians, says Nick Diamantopoulos, have never enjoyed the pungent taste of fresh garlic. Diamantopoulos says an estimated 90 per cent of garlic consumed in Australia is imported and "the taste doesn't compare".

"The earliest you can get any garlic into Australia from the U.S., which is the next best garlic, is at least three months old from the time of harvest," he says. "Our objective is to make sure the Australian consumer gets the benefit of tasting Australian-grown garlic and having an alternative."

Garlic growing in Australia is mostly very small scale, but Diamantopoulos plans to change that. Last year his company, Australian Garlic Producers, grew 250ha in Tasmania, producing 1000-1500 tonnes to effectively triple Australia's garlic production. That garlic has been cured, and will be on the shelves of Woolworths this month.

Diamantopoulos is an industrial chemist by trade, but had a yearning to farm and became fascinated with garlic.

With Steve Freckleton, he established Australian Garlic Producers in 1998. In 2003, Woolworths expressed an interest in home-grown commercial quantities. "We are now commercially producing garlic and supplying Woolworths nationally for five to six months of the year," Diamantopoulos says.

Garlic can be kept for only six months, but by growing garlic in northern NSW he plans to extend the period of supply. "We want to grow about 3000 to 5000 tonnes, that is 30-50 per cent of the Australian market," he says.

Timbercorp was an investor in Australia Garlic Producers, but is no longer involved in the business.

However, former Timbercorp chief executive Robert Hance is on AGP's board. "He has become a garlic nut," Diamantopoulos says.

There used to be about **7000** Australian garlic growers, but Henry Bell, executive officer of the Australian Garlic Industry Association, says a decade ago the market was flooded with cheap Chinese garlic. "This just destroyed the industry," he said.

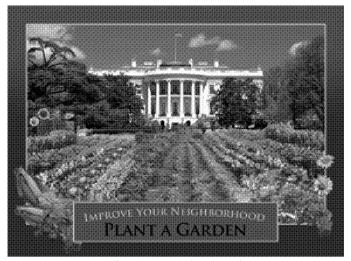
Still, local garlic production is increasing. "A lot of people are ringing saying where the hell can I get some decent garlic," Bell says.

Chinese garlic has usually been blanched and kept in cold storage, making it spongy. As well, all imported garlic must be fumigated with methyl bromide, and is usually treated with a growth retardant.

John Clifford, who grows garlic on the edge of Melbourne, runs an online business, Garlic Farm Sales. "People want Australian-produced garlic, organic or conventional, but a lot organic, because they know it has not been treated with chemicals on importation, or blanched," he said.

Clifford says "slowly, people are choosing the Australian garlic over the Chinese".

"People who just want cheap garlic will still buy Chinese, but people who are health-conscious want to go for Australian garlic," he says. "The fresher the garlic, the better the taste."



Credit: Syracuse Cultural Workers

THE GREENING OF THE GARLIC PRESS

Though we have changed slowly but surely over the years, we are steadily realizing that it is important for us to embrace not only traditional systems of communication, but also those that use email, chatting and electronic messaging. In that spirit, as well as in the original intention of Earth Day, we are offering to all of our members, who so choose, an opportunity to help us make a statement about reducing waste and saving trees. Our plan is to begin to offer The Garlic Press in an electronic format, for those who may find that a good choice to fit their lifestyle or to help support the costs associated with printing and sending out the Press. On our homepage at www. garlicseedfoundation.info, we will be adding a "button" so that you can give us your email address and request getting the newsletter in your inbox through your email. By no means is this an effort to force folks who have no computer or interest in one to get onboard this project, but it is a wise way for us to move forward and still support you and your needs for

RECIPES

Green Garlic Soup

From Chez Panisse Vegetables Cookbook

As we researched recipes and information for our Garlic article we stumbled upon recipes for green garlic. Much of the information we gathered came from a newsletter called *Food & Farm* notes written by Terra Brockman. Terra's brother is Henry Brockman, who is proprietor of an organic farm (Henry's Farm) in Illinois that produces over 500 varieties of organic produce. We thank Terra for her work and her recipe contributions.

Ingredients

1 pound green garlic (about 8 to 10 plants)

½ pound new potatoes

2 medium onions

1/4 pound unsalted butter

Salt

2 quarts chicken or vegetable stock

Cut the garlic into thin rounds or half-circles. Unless very tough, the lower foot or so of the stem and leaves are fine to use. Peel the potatoes and cut into 1/2-inch cubes. Peel and chop the onions into small dice. Melt the butter in a heavy-bottomed pot, add the onions, and cook slowly until translucent and tender. Salt, and add the garlic and potatoes. Cook these together for 5 minutes, then pour in the stock and bring to a boil. Lower the heat to a simmer and cook the soup until the potatoes are tender. Check the seasoning. This soup can be served rustic and chunky, or puréed.



Pasta with Three Kinds of Garlic

(adapted from Martha Stewart)

1 head plus 8 cloves garlic, divided 16 ounces dry spaghetti 2 tablespoons olive oil 3/4 cup dry white wine 1 loosely packed chopped fresh parsley 1 teaspoon crushed red pepper flakes

Preheat oven to 425°.

Wrap whole head of garlic in foil. Place in the oven and roast until soft, about 45 o 60 minutes. Remove and let cool enough to handle. Separate and squeeze out the cloves. Place in a small bowl.

Bring a large pot of salted water to a boil. Add pasta and cook according to package directions, drain.

Thinly slice 5 of the remaining garlic cloves. Finely chop the other in a large skillet. Heat oil over medium. Add sliced garlic. Cook just until golden and crisp. Use a slotted spoon and quickly transfer the garlic to a plate. Add shopped garlic. Cook until translucent, about 30 seconds to 1 minute. Stir in roasted garlic and white wine. Simmer for 3 minutes. Add pasta, parsley and red pepper. Season to taste with salt and fresh ground black pepper. Toss well to combine. Serve with the thinly sliced toasted garlic on top. Makes about 6 serings.

Roasted potatoes with garlic and herbs

Dietitian's tip: Potatoes are a good source of vitamin C, vitamin B-6 and potassium. If you eat them with their skins, you nearly double the amount of fiber.

Ingredients

1 pound small (2-inch) white or red potatoes

10 garlic cloves

1 tablespoon olive oil

1 teaspoon chopped fresh rosemary

1/4 teaspoon salt

1/4 teaspoon ground black pepper

1 teaspoon butter

2 tablespoons chopped fresh parsley



Preheat the oven to 400 F. Lightly coat a large baking dish with cooking spray.

In a large mixing bowl, add the whole potatoes, garlic cloves, olive oil, rosemary, salt and pepper. Mix thoroughly (hands work best) until the potatoes are coated evenly with the oil and spices.

Arrange the potatoes in a single layer in the prepared baking dish. Cover with a lid or aluminum foil and bake for 25 minutes. Remove the lid or foil. Turn potatoes and bake uncovered until the potatoes are soft and slightly browned; about 25 minutes. Transfer to a serving bowl, mix with butter. Sprinkle with parsley and serve. (Serves 4.)

Pear and Parsnip Soup

from theperfect pantry.com

(Make this vegetarian by substituting vegetable stock or water for the chicken stock. Serves 6)

2 lbs. Parsnips, ends trimmed, peeled

1 medium red or sweet onion, peeled and quartered

2 cloves garlic, whole but not peeled

Sea salt & black pepper

½ Tbsp olive oil

1' large pear (or 2 medium), any variety, peeled & cubed

2 cups homemade chicken stock or low-sodium store-bought

½ The minced fresh thyme (or parsley, marjoram, chives, or a mixture), to taste

1/4 cup heavy cream (optional)

Preheat oven to 375°F. Place parsnips, onion and garlic on a rimmed baking sheet; season with salt, pepper and olive oil and toss to coat. Roast for 30-40 minutes or until vegetables are lightly browned. Remove pan from oven and set aside for 10 minutes. Cut parsnips into chunks and put in a soup pot on the stove with onion, peeled garlic, pear, and chicken stock, plus water to almost cover the vegetables. Bring to a boil, then reduce heat to simmer and cook, uncovered, until the pear is tender (15 minutes). Add herbs; cook 5 minutes more. Use an immersion blender to purée the soup in the pot (or purée in batches in a blender). Add cream if you wish. Season with sea salt and lots of freshly-ground black pepper, to taste. Serve hot, garnished with snips of fresh herbs.

ODD GARLIC NEWS



TOWN GOES CRACKERS OVER STENCH OF GARLIC

Daily Express, Saturday December 1, By Tom Morgan

PUNGENT: The smell of garlic is taking over the town A TOWN has been engulfed by a huge cloud of garlic after the stench escaped from a cracker factory.

The pungent odour is forcing residents to close doors and windows to escape the smell.

The fumes are coming from a Ryvita factory that is producing a new garlic and rosemary flavoured crispbread.

High atmospheric pressure has resulted in the smell hanging in the air up to three miles away. Ryvita has now employed a company that specialises in "odour control".

The garlic cloud is largely concentrated in the Parkstone area of Poole, Dorset, but has also been detected several miles away in Canford Heath.

Cathy williams, 42, said: "I opened the back door and got this instant blast of garlic. I thought it was a neighbour doing a bit of cooking but the smell was really strong and never went away.

"I like garlic and the smell of it normally makes me hungry but this stuff was so strong I had to retreat indoors."

Arthur Cooke, 84, said: "The whole town stinks like a Frenchman. I can't bear the stuff, it makes my eyes water.

"I've shut all my doors and windows and wedged them with damp towels to stop the draughts."

Jeff Morley, manager of Poole council's environmental protection department, said: "Ryvita are being very co-operative and are working to resolve the issue."

Allium vegetables and risk of prostate cancer: a population-based study.

Hsing AW, Chokkalingam AP, Gao YT, Madigan MP, Deng J, Gridley G, Fraumeni JF Jr., Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda, MD

Epidemiologic and laboratory studies suggest that allium vegetables and garlic constituents have antitumor effects. In a population-based, case-control study conducted in Shanghai, China, we investigated the association between intake of allium vegetables, including garlic, scallions, onions, chives, and leeks, and the risk of prostate cancer. We administered in-person interviews and collected information on 122 food items from 238 case subjects with incident, histologically confirmed prostate cancer and from 471 male population control subjects. Men in the highest of three intake categories of total allium vegetables (>10.0 g/day) had a statistically significantly lower risk (odds ratio [OR] = 0.51, 95% confidence interval [CI] = 0.34 to 0.76; P (trend)<.001) of prostate cancer than those in the lowest category (<2.2 g/day). Similar comparisons between categories showed reductions in risk for men in the highest intake categories for garlic (OR = 0.47, 95% CI = 0.31 to 0.71; P(trend)<.001) and scallions (OR = 0.30, 95% CI = 0.18 to 0.51; P(trend)<.001). The reduced risk of prostate cancer associated with allium vegetables was independent of body size, intake of other foods, and total calorie intake and was more pronounced for men with localized than with advanced prostate cancer.

Facing Ice, Snow, Iowa Town Looks To ... Garlic Salt

NPR: Listen Now:

All Things Considered, December 19, 2008 In the Des Moines suburb of Ankeny, Iowa, a winter storm dumped 4 inches of snow Thursday. Along with added sleet and ice, the plows and salt trucks have been out in full force. Al Olson, Ankeny's public works administrator, has found a culinary – yes, culinary – solution to the problem.

"We've kind of spiced up our operation a little bit," Olson tells NPR's Melissa Block. "We were fortunate enough last Friday to get 9 tons of garlic salt from Tone's Spices. And as a result of that, they gave us a call and we mixed it in with our road salt. And as we speak, we are applying it on the roads in Ankeny."

Olson says that the excess salt from Tone's was just outdated. "So rather than landfilling the product, they gave us a call," he says. The garlic salt is a variety of sea salt, which many communities use in the winter for snow and ice control on city streets.

"We thought from a product standpoint, salt's salt," Olson says. "So we took it upon ourselves to go ahead and send a couple trailers over to Tone's Spices to pick up the product. The garlic is a bonus. It's been a lot of fun."

With regard to the garlic smell, "we were actually kind of tired of it the first couple days," Olson says. And most of the supply has already been used, as the city puts down between 100 and 150 tons of salt after a storm. "If you use a clove of garlic in your home and you're making spaghetti, and you know how that kind of fills the air with a garlic smell? Imagine 9 tons of it," Olson says. "Yes, it can make your eyes water a little bit, and everybody has a different reaction to it."

But, he says, the city residents are used to smells wafting from Tone's factories. "There are times Tone's may be processing a particular spice, and you can smell cinnamon and some of those flavors. And now it's on the road."

Court evacuated

due to garlic smell

By Mayer Nissim, Daily Express, UK, April 15 2009,

Bristol Crown Court was evacuated after the smell of garlic permeated the building, it has emerged. Cases had to be adjourned after a man spread garlic oil on radiators and in plant pots on the first floor, *The Daily Telegraph* reports. One woman said: "It was utterly disgusting, I've never experienced anything like it. It made me gag and I can smell it on my clothes and hair."

Senior listing officer Nigel Northeast said: "It was harmless but it has been very disrupting. We have identified the individual from CCTV and police are investigating."

Last year, an entire seaside resort was bathed in the smell of garlic when a new crispbread was produced by Ryvita.



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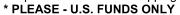
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Fig. 11.—Late garlic is stored in the warehouse in open-mesh sacks.
Good ventilation is secured by storing in layers.
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