

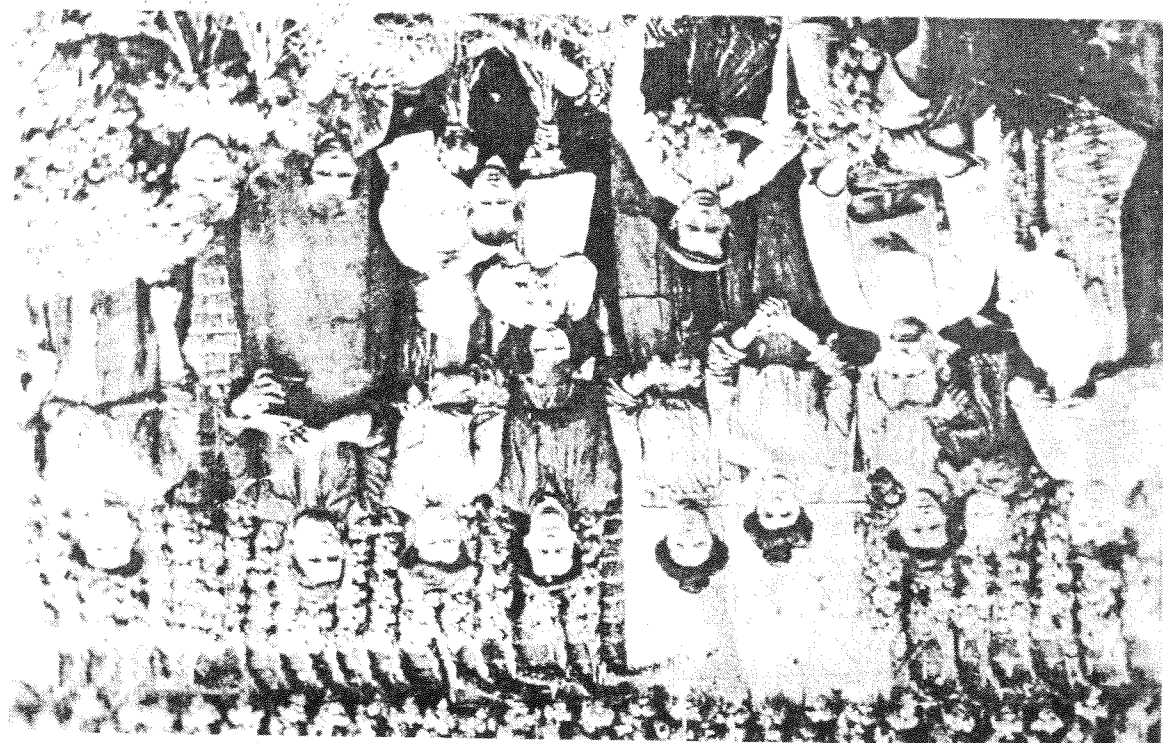
GARLIC SEED FOUNDATION
ROSE VALLEY FARM
ROSE, NY 14542-0149

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... THE GARLIC WAY OF LIFE ...
Garlic Growers in Arleux, France, circa 1930



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

The Garlic Press

FALL 2001



#39

Straining for Strains: A Varietal Experience

The ability to produce fertile pollen is becoming desirable for some elements of this business. A race is on by the big burly California companies to get a patent on the seed. Maria Jenderek is producing seed quite successfully for a research agenda and possibilities are being aired that could indeed radically change the way we view this "varietal" thing in garlic. Dave Stern asks, "Why do folks like to collect things? What is that key factor so nearly fanatical?"

I've saved strains for years because they were Mohawks' or Sharkey's and these garlics of our seniors need to be set aside and saved. I've seen the transitions that 5 or more (even 3) years do to the wrapper and clove skin colors and the way many rocamboles become indistinguishable. Tastes vary from year to year, field to field, but plant height, stripping and number of cloves seem to reach a steady state after transitioning to your area. In this part of the country, the wet years and dry years can make the difference and survival abilities can be tested. There are some strains that seem to do well most years, and others that struggle then all of a sudden come through a specific year's weather with optimum growth and beauty and tasting wonderful. I don't pretend to know the formulas for success, don't keep the scientific records I probably should, but my fingers and eyes tell me a lot about these old friends and how they do year to year.

Last year's overabundance of rain, mud, swamp-like conditions almost did me in and took down a few older varieties that may be lost forever. Fortunately, I'm returning to square one with about 60 new strains and a promise to myself to serve them well. I don't do it to buy, sell, and label an exotic selection of commercial offerings and have backed right out of the illusion that hinges on money and success. Success is getting up and out to the field and keeping my back from locking up, and money—well not even an issue when you're used to there never being more than will get you through by the skin of the sheath!

Most years no one sees even 10% of the varieties. I cut loose of whatever there's enough of and give away a lot of garlic, unceremoniously suggesting that it is noticeably distinct from what the store supplies. In our area, sophistication is like snobbery and ignored. If you can't smile, look folks in the eye and keep it short and sweet, you'd best not go out. Culture is the diners scattered about in tiny hamlets where coffee and greasy food mix and farm folks mingle. So I laugh and reminisce—think of our poor attempts at culinary presentations, varietal taste-testing, and the forced fit with the winery world.

As the New York wines become recognized, they are pulling the food writers out of the cities to wander our moraines and glacial till fields in this frozen lakes region. This year they gathered and brought out their vocabularies and heady wine lingo

and sought to include my three garlic submissions with their three wines and we presented a roasted, a sauteed and a fresh (raw) serving of each to include with each of the wines. Of course, the roasted garlic pretty much tasted colorless as it was roasted perhaps too long and tasted like a potato with almost no lingering garlic taste. The saute embraced the oil it was quickly tossed about in and again pretty much buried the differences. Only when the thinly sliced fresh garlic was presented did the eyebrows and conversation make a marked change. There finally was a line drawn in this culinary battle of tastes and some clear differences became apparent.

The "Music" from Canada—the largest garlic and largest cloves—certainly at first view was oohed and aahed by size, but fell dramatically through the tasting events. It was sulfurous but dry and did not make it to the top of any of the evaluation lists. The "German Red"—probably my most successful garlic this rainy season—came out nicely sized, and with its beautiful brown skin and rich complex taste, it certainly nosed out the Music and not noticeably superior in cooked form, did stand out fresh and was deemed a good compliment to the Pinot Noir. The final garlic, which had been a tough choice for me, was a Carpathian Mahogany—not large and a bit rough looking, with stained skins from the muddy field conditions—probably beginning in last place on sight alone, by the time its beautiful purplish brown skins were peeled and yellowish white cloves were out, the choice by the end of the fresh taste round was unanimous. The writers wanted it sent to New York City—they all slobbered their glasses and swished their tongues about in fear of the lively taste and the rich "oily" taste that was complex and enduring. "Bigger isn't better in every case," I insisted, but little did it matter as the hour-long event closed and the tasting session seemed to be gladly deemed over.

Many of those folks truly had little experience with garlic specifically. They had written about food, critiqued French cuisine and restaurants or were wine enthusiasts or makers and they were surely feeling their way to a "fit" with garlic and wine. So I walked away from the table of elite pander of flapping tongues fueled by alcohol and fire and retreated to my corner booth. People will find a way to make things important for themselves—feel that somehow there must be a "better" variety, a better garlic, and then if they have it or buy it, maybe they will be a "better" person. I say live, drink, eat and let your breath pay homage. Some of us just try to grow the stuff and keep it going. It's peasant food and thrown on hot coals, toasted on an open fire and squeezed by dirty and smokey fingers smeared on a chunk of bread, it keeps the soul warm and happy. A connoisseur I'll never be—thankfully!

— BD

Director's Notes



For 20 years I have cut asparagus every day for 6 weeks, sometimes twice a day, and when the Spring is cold and wet—every other day. I walk the same pattern and form a relationship with this field and plant—different from other crops. When first I arrive at the field in the early morning, I give thanks for the harvest, then twist and stretch my back joints, hook my gathering pail to my belt, and walk to the first row, maneuvering the knife through my fingers to find its position.

The harvest becomes a dance—moving down each row quickly, watching for the next spear and instantly processing its length, diameter, and bud development (will it wait another day?), then a practiced approach—not stepping on smaller spears—a bend, grabbing with the left and plunging the knife below ground with the right. Eyes return to the row as, erecting, I field trim and put the spear(s) in the pail, and move ahead. The first spears are breakfast, the rest for the pail. It takes good eye-hand coordination and a very sharp knife, which each harvest dulls, requiring re-sharpening and an easier time for my back. It becomes a 2-hour aerobic waltz that gets my heart up to 110 bpm, and tender hip and back joints.

The nerve center of this plant is 8-14" below ground. That requires solar energy so it directs its nodes to send up fleshy stems that become leaves/collectors. When the "computer" realizes the stem has been cut, it sends up another, and another. It becomes a game. Some rows will give 20# today, and 1# tomorrow. It tires after 6 weeks; I can sense, as well as see the change. This aquatic plant, brought ashore from the Mediterranean Sea, has long been consumed in Europe as a white/blanched vegetable (the strong flavor from the chlorophyll doesn't compliment the rich, deliciously-wicked cream sauces).

Here's a bit of asparagus/botanical trivia: The kings of France chose their royal gardeners by those who could provide asparagus 12 months a year. Just think about that one, and realize we're talking 300-400 years ago! "Why does asparagus make my urine smell so bad?" It's a good diuretic, cleansing your body, and what you smell is methyl mercaptan, which is akin to ethyl mercaptan, or "good old skunk." And lastly, when fresh, large spears are just as tender as any other size.

I share the asparagus field with many other creatures. Every year a Killdeer has made its nest in the rows, requiring me to play the game and travel away from the nest and detour tractor cultivation until the nest is vacant. This year, bluebirds are in the nesting box by the bridge, and each morning the male joins me down the rows, knowing I will roust up edible insects during my harvest. Wild turkey have a dust pit on the end by the woods for their bath. Deer walk through and nip a tender spear from time to time. "Bambi, eat your

vegetables! But Mom, I hate asparagus..." Thank goodness! Next to root diseases, the asparagus beetle is the "pest of choice," but usually not severe. Except once, when I was bent in harvest—next to a fern (spear gone to leaf stage) and a beetle walked into my right ear! After two hours of feeling this object crawling through my brains and trying everything I could think of (from Jack Daniels to the vacuum cleaner), I went to the Emergency Room.

Today was my last to harvest, trim, grade, and pack in the cooler. I'm always a little sad putting up my tools, realizing my daily routine will now change. I've heard people say, "I'd never get tired of eating asparagus!" Oh yes you would: 4 or 5 times a week for 6 weeks ... here's my simple favorite:

- 2# fresh "grass" asparagus, cut to bite size
- 2 garlic scallions, cut thin
- lemon juice

Lightly steam together, splash on the lemon, and eat immediately—and keep your nose out of the toilet bowl!

Tomorrow I will mow and lightly disc the field, then plant inoculated soy beans as a cover crop for nitrogen, Organic Matter, hopefully snuff out some weeds and grasses, and prevent erosion. Don't worry—that Master Control Center below ground sends up more spears that leaf out and tower above the soy beans. Tomorrow I shall also start the blueberry harvest, and in 2½-3 weeks, the garlic.

GSF Biz

- ☛ Thanks to all who renewed following our post card campaign. We shall continue to send notices after each Press to those in arrears.
- ☛ We need help at the GSF booth at the Hudson Valley Garlic Festival (Saugerties, NY) this year, due to the fact that Editor-in-Chief Bob Dunkel is due to become a grandpa (Congratulations Dunk!). If you have some time to help out, we'd appreciate it. Contact GSF.
- ☛ We want to thank the folks at Rodale for their permission to reprint some of their past garlic articles. We hope you'll find them educational and enjoyable.
- ☛ And lastly, thanks to all those "dog-folks" who sent kind words and wonderful stories of their 4-legged canine friends. Tonight I brought home a new dog—a 3-month male tricolored Walker hound from my Amish friend, Ben Schwartz. This farm needs a puppy.

Happy Trails. (D.S. com)



Press #39: August 2001

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(includes *GARLIC PRESS* subscription and #387)

First year New X \$15.00 = _____
Renewal 2 Years X \$20.00 = _____

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GROWING GREAT GARLIC (Engeland, 213 pgs.) Grower's Guide for Collectors X \$12.00 = _____

ONIONS AND GARLIC (Louis Van Deven, 114 pgs.) Limited Quantities X \$6.00 = _____

CLOVE N' VINE "How to Make a Garlic Braid" X \$3.50 = _____

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GARLIC AVAILABLE:

Top Set Amount Available _____ Minimum Order _____

Soft Neck Amount Available _____ Minimum Order _____

Elephant Amount Available _____ Minimum Order _____

Organic Yes No

Certified Organic Yes No

Brief description of crop: _____

More Stinky Replies

From Richard Zampa
40 Westfield St., West Haven, CT 06516

Regarding your article, "To Mulch or Not to Mulch": Living up here in the Northeast (CT), approximately 2 miles from the coastline, our climate changes quite rapidly. Back in '98-'99 we had a relatively mild winter. Now for the past 2 years, 2000-2001, we have had sufficient amounts of snow here along the coastline. I usually put down approximately 2-3" of straw. Some years ago, when I first started growing garlic (have had tremendous useful help from the good people at Filaree Farm in WA), I never mulched. After learning more about soil amendments, I have had a drastic improvement on the garlic beds. One year, came April and the sprouts growing through the straw, I moved it aside and much to my horror it smelled musty. The straw held in too much moisture. I wound up saving the crop by immediately removing all of the mulch so the sun could dry the soil. Now, for the past 3 years, I mulch as usual, immediately after planting the cloves in late October, and come March, I pull off all the mulch. I have been rewarded with really nice big heads of garlic. I don't have too much of a problem with weeds as they are gone with light cultivation. I harvest just as soon as I see the crop starting to lay down, which you have to watch closely. What started out to be a quest for large heads is now an obsession! "Music" fits the bill here—besides, what's life without Music!

**If leekes you like
But do their smell dis-leeke
Eat Onyuns
And you shall not smell the leeke**

**If you of Onyuns
Would the scent expelle
Eat garlicke
And that shall drowne
The Onyun's smelle**

— anonymous, 16th Century

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.

DOT.Calm

A hum begins
and with a hum it ends.
Boot it up and shut it down.
The tail of a mouse
comes from some electric house.
I'd like to see the garlic here
Not its imagematic form
but smell, touch, feel something ...
We can't click it into the ground
or call it up on screen in Spring
Can't access its file to fertilize
Our edit screen won't cultivate
and archiving it doesn't
mean it'll hold through winter.
We need balance.
We need peace.
We need to kneel on the earth
and we need to remember our part.
There's a new generation though
Growing in inner space
on a web our eyes alone
can't see or hands touch.
A tingle of electric pulses
burns my hand, not from cold
but from this mouse's fire!
My eyes are tired
not from weeding in the row
or separating seed stock
but from this flat screen
that dizzy's me in its dimension.
Find your way to peace.
Remember the compass of love
and breathe life, air and garlic.
Know when to rest and when to rise.
Keep an eye on changing skies.
In your garden
On your farm
You know this tired peace.
For you on this Web
May you, too, be wise.
Know when to rest and when to rise.
May you find it here
and may you find it there
From earth, each season
brings its psalm.
May you, too, find
a real DOT.CALM

(B.D.)



OUT OF MY HEAD

Bob Dunkel

Does the end justify the means? Or do we embrace process itself and dance its inarticulate way on and on?

I'm no expert. Haven't enough of the scientist left with me to keep records. And as for memory, I've got washed out posts marking futility. Good thing I have a map as a backup system. I do a large part of my work on my hands and knees, and I'm happy just being out there and keeping busy. No money to invest in toys and fancy tools, and I like to keep trying something new, just in case it might work. This year was soybean meal as a side dressing in Spring. The corn farmers laughed and said, "It'll help yer soil, mebee, but it's not nitrogen." Somehow, in my confusion, I still believe there must be some connection between protein and nitrogen. Anyway, the response did seem advantageous, and with the rains slowly washing it in, it sure seems more usable than foliar feeding. I also again tried seaweed solution in my sprayer for my varieties in trial and kept the soy meal for older tried and true strains that I grow for sale.

Last year was a real killer for me, and for the first time in a while, I did not have enough shallots to section off my varieties and went back to deep stakes hoping they'd last, and they did. I'll often be working and adrift mentally and find I'm just marveling at stalk color and tiny cracks in their base during expansion. Or I'll hit a row marker that's legible and it'll send me on a journey of time. I remember last week stumbling into Red Toch, Chester Aaron's celebrated strain, and it looked a bit thin (as it's new), but it sent me on a great trip down memory's rugged terrain. Clearly, value is created and maintained, or not, like most folks' gardens. As we stumble along, we find uniqueness and commonality. Is genius inherent in all life? Or does only garlic sweetly stink? I am most aware of choosing this way of life and its arbitrariness. Some buy farms, inherit land, work to live and not live to work. Others are like busy bees, visiting every flower about. We need to find what works for us and quietly serve it until someone comes along who wants to pick our brain like a blackbird plucks a cherry. Then we can surrender *our* truth, not *the* truth.

There is a black and white checkered floor in the diner where I take refuge and write. Fickle I think—some days I focus one way, some the other. I see patterns and fragments, themes and thimbles of logic. It all works on the inside of things. Away from the drone of folks' conversation I wonder, mixing my decaf, and regular, as time goes by. I smell and watch eggs stacked and frying and in my mind a stew of thoughts bubbles and boils.

Focus is important, diligence necessary. After 50 years though, sometimes I don't remember what this means. I love seeing growers at festivals, renewing old ties, and watching the world mix of shoppers and listening to them ask their questions. Sadly, this will be the first time I'll miss Saugerties and seeing many old friends, due to a family wedding. But I'll be in Tulsa again, and I will be out and about as I can.

I wish you all a happy harvest season and drying winds for folks like me who can't afford controlled storage. Scapes are late this year, like the snow, and although planting was

earlier, harvest will probably be the second half of July. Anyway, thanks for listening and supporting the Foundation over the years. I know we could serve you better, but after many years, at least we are still here. Please, please, please send us something of your story or your concerns or plans or failures. We all learn from one another, so share your experiences as I know you share your garlic.

Peace and Pizzazz,
B.D.

A Wedding

On the Isle of Stinkcayne
in an epoch long gone by
From the sea cliffs far below
I could see those green flags fly!
All those waving bulbilled clusters
Untouched by human hand
Were bursting with purple flowers
Where pollen filled the land
The winds took forth a message
That the bulbing time was nigh
Whales filled the waters
Where the salty sea sprays fly
The sea hawks soon had gathered
Their talons flexed and filed
And swooping stalks were lifting
As the bulbs were deftly piled
Soon smaller birds were weaving
Huge nests with bulbs inside
While crows were out and cawing
To the elephant's new bride
For a wedding day was nearing
For Flatulotta, mighty King
Who ruled o'er all these creatures
On the Isle of Stinkcayne.
The ceremony soon was started
The regal march begun
That soon great queen Sativuum
To that bulbous nest did come.
Soon every noble creature,
Insect, plant or fish
Knew the moment soon would come
When Flatulotta got his wish.
Sativuum sat both night and day
A fortnight must have passed
Then finally off her haunches
She rose and heard the gasp.
The throngs about were wide-eyed
Soon a melody did rise
For never in a thousand years
Could they believe their eyes
Tho' still some cloves had broken,
Smashed, fermented and turned green
In the middle of that nest
Was the largest bulb e'er seen.
And the Great King Flatulotta
Had tears in his red eyes
As the scent of dear Sativuum rose
You could hear the joyous cries.
The marriage now was over
But the celebration would not end
For the newest specie listing
Had been spread on every wind.
For from Sativuum and Flatulotta
A sweet breeze did seem to rise
And forever round the world now
We eat their wondrous prize.
In history books tho' oft o'erlooked
The isle of Stinkcayne's fame
Can be traced from other alliums
From whence elephant garlic came.

B.D.

Garlic Festivals

2001 A "Stink" Odyssey

What & Where	When	Who	Phone/Web
21st Annual Northwest Garlic Festival Ocean Park, WA	June 16 & 17	Diana Thompson	360-665-0102 1-888-751-9354 www.opwa.com
Gilroy Garlic Festival Gilroy, CA	July 27-29		408-842-1625
Fox Run Winery Garlic Festival Penn Yan, NY	August 4-5	Carol Chester	315-536-4615 800-636-9786 www.foxrun-vineyards.com
Love Israel 12th Annual Garlic Fest Arlington, WA	August 10-12		360-435-8577 www.garlicfestival.net
Eastern Ontario Garlic Festival Caro Fairgrounds Near Ottawa, Ontario, Canada	August 11-12	Paul Popisil	613-273-5683
South Kariboo Garlic Festival Mile House British Columbia, Canada	August 18-19	Gail Szolosi	1-877-397-2518 www.kariboofarms.com
4th Annual Elephant Garlic Festival North Plains, OR	August 17-19		1-888-771-3708
2nd Annual County Garlic of Picton Festival Milford Fairgrounds Prince Edwards County, Ont.	August 18-19	Christine Kusman	613-476-5943 e-mail: rosarugosa@sympatico-ca
Garlic is Great Festival Country Heritage Park Milton, Ontario, Canada	August 18-19	Gary Johnson	905-726-3356
Adams Garlic Festival Pawcatuck, CT	August 18-19 (10 AM-4 PM)	Adams Family Farm	860-599-4241 (phone/fax)
Canadian Garlic Festival Sudbury, Ontario, Canada	August 25-26	Mary Stefura	705-673-7404
Pocono Garlic Festival Courthouse Square Stroudsburg, PA	September 1		610-381-3303 717-421-7235 www.stroudsburg.net
Southern Vermont Garlic Festival Wilmington, VT	September 1-2	Joy & Steve	802-368-7147 e-mail: swrath@together.net
Batavia Garlic Festival Pontillo's Pizzeria Batavia, NY	September 15	Gary Skoog	716-637-6586
Hudson Valley Garlic Festival Saugerties, NY	September 29-30	Pat Reppert	845-246-6982
Virginia Wine & Garlic Festival Amherst, VA	October 13-14	Richard Hanson	804-946-5168
Garlic Is Life Festival #3 Tulsa, OK	October 30- November 3	Darrell Merrell	918-446-7522 www.garlicislife.com

Keep in mind the plant's reaction to drought when selecting the site for planting. Placing rocambole in a spot that cannot easily be kept free of water will cause the gardener to have a poor harvest. The Mediterranean climate of the West Coast, with its wet, mild winters and long, dry summers makes it an ideal place for growing both rocambole and garlic. Once established in autumn, the plant grows slowly through the winter and develops quickly in the spring. The rains stop in April, and the succeeding drought cures the bulb and makes it store well. Additional hardening-off in the sun after lifting the bulb is necessary to get the maximum storage time from your crop.

Rocamboles develop the odd aerial bulbils during late spring, just as the gardener suspects the plant has reached its optimum growth. To keep water on the plant after this stage will cause the cloves to begin to sprout roots, or at least cause the cloves to keep for only a short time. I withdraw the water totally after the top bulbils are formed, and I remove any mulch I may have put down. The rocambole will continue to develop with the residual water in the soil. Finally, the leaves will wither and the stalk dry out.

I lift the bulbs only when they are totally dried out, and let them cure in the sun for a week or more. Store them in a cool, airy place. I put them in net bags and hang them from the rafters in the garage.

Rocamboles do not store as well as garlic, which is one reason it is not grown commercially. Bulbs do not keep well because the clove begins to dry out and discolor when the paper-like skin is removed.

In October I put all the aerial bulbils into a prepared bed. If some larger cloves show signs of losing their color, I plant

them at the same time. They are soon off and growing for another year. We run out of rocambole for the kitchen sometime around midwinter. Until June, regular garlic will take its place in our kitchen — a small disadvantage. The ease of handling rocambole and its pleasant, mild flavor have earned a permanent place in my garden as well as in the kitchen.

SUDS YOUR BUGS

MITES, APHIDS, psyllids and thrips taking a toll of your ornamentals? Recent research has shown that soap and detergent sprays can quickly reduce these insects' populations.

High-pressure soap sprays dislodge insects from plants and may also asphyxiate them. Researchers at the University of California at Berkeley found that the more concentrated solutions provided the best control, but also damaged plants. Leaf burn was the most common symptom, while some solutions left a white residue. A concentration of about 50 grams (a little less than two ounces) of detergent per gallon was effective and least harmful to plants when applied at low pressures with hand-pump compression sprayers, hose-end sprayers or plant misters. Ivory Liquid provided the most consistent control, but other dishwashing detergents work well, too.

— C.W.

Garlic, Wine & Olive Oil

Historical Anecdotes and Recipes
THOMAS PELLECHIA

To most people of the Mediterranean region, garlic, wine, and olive oil make up the "Holy Trinity" of foods: Garlic for flavoring taste and health; wine for its obvious euphoric, relaxing as well as medicinal value; and olive oil as a medium for cooking, salad dressings, and marinating and for its own healthful properties. The many cultural and mythic dimensions of these three foods, whose use dates to prehistoric times, is discussed, along with an historical survey from Old World usage to the New, specifically to Brooklyn, NY, where author Pellechia grew up in a milieu of Italian, Greek and Jewish neighborhoods, where garlic, wine, and olive oil were daily staples.

With illustrations throughout, maps, historical quotes and facts, personal memoir, and both ancient as well as over 50 modern recipes, *Garlic, Wine & Olive Oil* tells how reverence for these three was first developed in the Mediterranean and Near East and became integrated into cuisines around the world. In a tight, informative narrative, Pellechia covers the origins, cultivation, healthful attributes and preparation of these three "holy" foods.

Rather than a dry history book or mere collection of recipes, this book educates as it entertains, weaving together historical material, the author's ancestral connection to these foods, plus his travels through Europe, along with quick, easy-to-prepare, and appetizing recipes. This unique format makes cooking and history come alive!

Informative, entertaining overview of the history and use of three popular foods—including maps, illustrations, and recipes!

Thomas Pellechia is a freelance journalist, business and wine writer. He has been a winemaker, salesman, and wine-and-food seminar and workshop speaker. He also writes a wine column for a wine quarterly, and a weekly column for a Gannett newspaper. He lives in Hammondsport, New York, with his wife Anne, a graphic artist.

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Foolproof Garlic

Midsummer is the best time to plant garlic

VIC SUSSMAN (August 1981)

I've discovered a superior way to grow garlic. This method involves practically no work, no expense for garlic sets, and you'll never have to worry about determining the right time to plant. The garlic will do most of the work.

Garden books usually tell you to plant and care for garlic as you do onions, both being members of the *Allium* family. So every year I'd set out garlic cloves in late March or early April, pressing them into the earth just as I did onion sets. Of course, I had to buy garlic sets every season (our humid climate doesn't allow long storage of root crops), and the rising price of the cloves was becoming bothersome.

Then one year, when midseason chores weighed too heavily, I didn't get around to harvesting the mature garlic until late summer. By then, most of the bulbs had shattered in the ground, and I had to gather up individual cloves by sorting through the dirt. A tedious job, but also a lucky accident.

A lot of the cloves I missed sprouted that fall and put up shoots. I thought about giving them some winter protection, but a hard freeze zapped everything before I got around to it. The garlic tops died back, and I forgot about them.

Yet very early next spring — just as wild onions were poking up in the meadow — dozens of garlic shoots burst back up, their stems as thick as pencils. That was the year I gave up the slow work of pushing in garlic sets. Instead, I carefully dug up the volunteer plants (pulling them will damage the roots), gently separated them, and immediately replanted them in a new location, spacing them four inches apart. I left a few plants in the ground for later transplanting among members of the cabbage family as insect repellents.

What a pleasure to work with full-grown garlic plants instead of cloves! I stuck individual plants in all over the garden, filling in otherwise unproductive bare spots. And I saw a significant difference in the garlic harvest that year. The bulbs from my field-grown plants were larger and more numerous than what I'd previously grown from sets.

Now I always let garlic plant itself. I harvest in early summer as usual, but I always leave a dozen or more cloves in the ground to produce next season's plants. I still don't bother to protect them against freezing (our January and February nights drop into the teens), yet clumps of garlic seedlings always pop up again, signaling the start of another gardening year.

Rocambole — The Gentle Garlic You'll Love

Here's a mild-tasting, self-propagating garlic that earns its place in the garden — and at the table.

JOHN MEEKER (October 1979)

Wouldn't it be convenient to have garlic that falls easily out of its husk ready for the cook to slice or crush? Wouldn't it be even better if this easy-to-peel garlic were milder in taste than regular garlic? And what if this new garlic were to have

a bulbil-bearing head that would enable the gardener to have his garlic and eat it too?

Well, this convenient garlic does exist, and its name is *rocambole* (pronounced roke-em-bowl). It's not a recent horticultural discovery — the Italian version has been around for as long as the regular variety.

Rocambole (*Allium scorodoprasum*) is sometimes confused with top onions, Egyptian onions or walking onions. *Rocambole*, however, is garlic in taste and smell — not at all like an onion. Among those who are familiar with *rocambole* are many who prefer it over garlic, for it does everything culinary that garlic will do, but is not as forceful. Some cooks think *rocambole* adds just the right flavor to a salad or a dish that would otherwise be overcome by regular garlic. One thing the cook is sure to like about it is that there is no tedious peeling of each clove. Formed just as the sections of an orange, *rocambole* cloves are neatly arranged around a central axis. Brushed between the fingers, the cloves fall right out of the husks, ready for use.

The cook benefits from the ease of handling *rocambole*, while the gardener benefits from the plant's production of miniature bulbs which grow on the "seed" stalk. A stalk that runs through the core of the clove sections is crowned by a radiation of bulbils (very small bulblets) which will, in turn, produce another plant like the parent. That's another reason why *rocambole* is often confused with some of the onions which also produce bulbils.

Rocambole takes five to eight months to grow into a mature plant. It is best planted at the same time as garlic in the warmer zones. In areas that experience hard ground freezes, *rocambole* works best as a very early spring crop. The bed should be prepared around autumn, well ahead of planting time, with planting taking place as soon as a finger can be poked into the ground. If you've had success with growing garlic, repeat your technique when setting out *rocambole*.

Push the cloves and bulbils down into the soil with the fingers. Whole cloves should not go deeply into the earth, no more than half their total length. Bulbils are no larger than corn kernels, and they should be planted proportionately to their size, about ¼ to ½ inch deep. I find that even though *rocambole* stays in the ground a long time, I do not need to fertilize it beyond an initial application of manure, though this may speak more for my soil's condition than for the needs of the plant.

I make sure that I can conveniently keep the water from the *rocambole* bed when harvest time nears. Planted in an area of the garden where water can be totally withheld during the last weeks it is in the ground, *rocambole* will develop better and last longer in storage.

Ideally, the soil should be prepared with chicken manure by digging it into the soil where the *rocambole* is to be planted. I find that I can get away with the "hot" manure at planting time, provided that I put a buffer zone of soil between the manure and the *rocambole* sets.

Trenching in manure along the row as a side-dressing should give good results to the grower who finds a need to feed his crop through the growing period. A side-dressing or even a mulch of compost would also be desirable. Any mulch helps keep moisture around the roots. As soon as moisture is withheld, the plants start to go into a decline, during which the bulbs become hardened-off and the bulbils mature.

THE GARLIC IS LIFE SYMPOSIUM & FESTIVAL — TULSA, 2001

by Darrell Merrell — "The Tomato Man with Garlic Breath"

The Garlic Is Life Symposium & Festival grew out of the love of garlic by three individuals: Chester Aaron of California, John F. Swenson of Illinois, and me, Darrell Merrell of Oklahoma. From the beginning, Chester, John and I envisioned a gathering of the friends of garlic that would enable individuals to share their love, experience and knowledge, be it in research, growing, marketing, culinary or authorship. We envisioned a forum where all could learn—neophytes as well as experts—and all could celebrate the munificent blessings that garlic has bestowed on all our lives: in short, to celebrate garlic, to celebrate life. As Chester says, "Garlic Is Life!"

For a year prior to our first event, I conversed by phone with almost all the participants, back and forth, from state to state and from coast to coast. Then on October 13, 1999, in Tulsa, we began to gather for the First Annual Garlic Is Life Symposium & Festival, with Chester Aaron as Guest of Honor. My daughter, Lisa, came from Seattle to help. She was my shadow and chauffeur throughout the event. She was most helpful in my maintaining whatever calm demeanor I might have displayed throughout the proceedings. Together we met all of the speakers and participants at the airport. The first to arrive was Chester Aaron. As Lisa and I were walking across the airport parking lot to the terminal, I turned to Lisa and said, "Finally, we're about to meet Chester. I've looked forward to this for over a year. For me this may just be the highlight of the whole event." I could only imagine what was going through Chester's mind. When he stepped through the doorway of the off ramp, we gave each other a big hug. You could compare it to a reunion of old friends who hadn't seen each other for years, but that would not be accurate. We had developed such chemistry over the past year that it was more like two brothers who were meeting face-to-face for the first time. Lisa and I were there to meet John Swenson, for the first time person-to-person, and then Chester and John met for the first time person-to-person, and so it went with many others for the next two days.

On Thursday evening, October 14, 1999, everyone who had arrived joined in a grand two-block march from the hotel to Al Sadavandi's Garlic Grill. Al served us a delicious meal, while we each introduced ourselves and talked a little about our connection with garlic. I'll go around the room: Chester Aaron, John Swenson, Arlyns and Lorado Adelman, Rich Hannan, Gowsala Sivam, Stanley and Rose Mary Crawford, Bob Dunkel, Brent Hemphill, Linda and Fred Griffith, Tony Lia, Dean and Mary Sue Sedinger, Bob Zimmerman and Wendy Douglas, Doug and Linda Urig, Jeff Nekola, Jerry and Linda Melone, Wes Culwell, Louis and Marie Van Deven, Bob Minnis, Jim and Lee Henry, myself and two of my children, Lisa and Mark, along with their mother, Kara Lee. What an evening! It lasted for 3½ hours. Magic was in the air, the electricity of our emotions could be felt, and the aura of love for garlic and each other developed and hovered over our celebration. Tony Lia said it best: "Darrell, this is not like a convention, it's more like a wedding reception, or better yet, an old-fashioned family reunion!" We had truly bonded into a welcome-you-with-open-arms garlic family. After most everyone had departed for the hotel, Doug Urig, the Editor of *Mostly Garlic Magazine*, approached me and asked me to sit down at a table with him. He put his hand on

my shoulder, looked me straight in the eye, and made a remark that I will cherish to my dying day: "Darrell, I've been to a lot of garlic-related events, and I just wanted you to know that this is the single best garlic event that I have ever attended in my life. If nothing else comes of the next two days, tonight was worth the trip!"

Phil Simon, Bob Anderson, Greg Deneen and Cassim Dunn joined us the next day. Jeff Nekola, Phil Simon, Rich Hannan, Gowsala Sivam and Linda and Fred Griffith gave thought-provoking presentations. Each was followed by a lively interchange of questions and answers. You could sense the intensity, the electricity; magic again was in the air and garlic was its catalyst.

That evening, Friday, October 15, 1999, we all enjoyed grand companionship and a luscious meal at the First Annual Garlic Is Life Dinner. A capacity crowd of some 200 attended. Twelve local chefs prepared and served their best garlic dishes along with featured chef, Tony Lia, then Executive Chef of the San Francisco Stinking Rose Restaurant chain. An added glow was provided by a troupe of "Belly Dancers"—yes, "Belly Dancers." Chester Aaron's After Dinner Remarks capped off a perfect evening.

Then, Saturday, October 16, 1999, was the First Annual Garlic Is Life Festival. Free admission, free food samples prepared by Tony Lia, free lectures, and musical entertainment, and garlic and garlic-related items for sale. Pleasant sunny weather smiled upon an open courtyard containing a beautiful water fountain, green grass, green leaved trees and a blue sky filled with slowly drifting puffy white clouds. Approximate attendance: 3,500. Celebratory but not commercial.

My son, Mark, really worked hard at setting up, tearing down, and in between selling garlic and books at my booth. And, as an after-thought, he arranged a celebratory dinner at the Lanna Thai Restaurant that evening.

Next day, I asked John Swenson what he thought of the proceedings. Looking me straight in the eye, with that beautiful broad smile on his face and a joyous, almost giddy tone of voice, he replied, "Better than perfect!" And so it was. Love was in the air. The Mystique of garlic had worked its spell.

Those who were there will comprehend. The Garlic Is Life Symposium & Festival is a place to celebrate our love of garlic, our love for each other, and our love of life. It is not a place to draw a crowd in order to fleece their pocket-books. It is a Festival, not a Carnival. It is not about money. Yes, money has to be raised to cover expenses. I do not envision it ever becoming a commercial venture. That may sound "romantic" to some, maybe even foolish, but we who are "in the know" know why it was such a successful gathering. Its central theme is our love for garlic and it is nurtured from the heart.

* * * *

At the Second Annual Garlic Is Life Symposium & Festival, October 12-14, 2000, the mystique continued. The symposium was expanded to two days. Our Garlic Is Life family was joined by Guests of Honor David Stern and Lloyd John Harris; also, Maria Jenderek, Kent Whealy, Brook Elliot, Jeremiath Gettle, Barbara Hellier, Jonathan Mizner, Dennis Olson, Jay and Mary Quarle, and Roger, Sue and Mark Weedn, plus almost all the attendees from the first year.

The format changed from a Speakers Forum on Friday afternoon to a half-day free form Growers Conference. A lively discussion, moderated by Bob Dunkel, ensued covering the various aspects of growing and marketing garlic.

The format for the remaining activities followed the setup of the first year—the Second Annual Garlic Is Life Dinner on Friday evening. Again on Saturday, October 14, the weather smiled upon the Second Annual Garlic Is Life Festival. This year some 5,000 attended. All in all, “Better than Perfect #2.”

The mystique rolls on. “Better than Perfect #3”—the Third Annual Garlic Is Life Symposium & Festival—is scheduled for October 30-November 3, 2001. We have moved it down the calendar so that it does not conflict with planting season. Our permanent Guest of Honor, Chester Aaron, will be joined by Guest of Honor John F. Swenson. Visit our website (www.garlicislife.com) for the complete schedule. A short version follows:

Wednesday, October 31

AM Session - Health Benefits of Garlic

1. Gowsala P. Sivam, Ph.D., Bastyr University, Seattle, WA
2. Eric Block, Ph.D., SUNY, Albany, NY
3. Larry Lawson, Ph.D., Orem, Utah (tentatively)

PM Session - Cooking With Garlic

1. Tony Lia, Chef, Los Angeles, CA
2. Liv Lyons, The Garlic Store, Ft. Collins, CO

Evening - Reception at the Garlic Grill

Thursday, November 1 - Speakers Forum

1. Fred Crowe, Ph.D., Plant Pathologist, Madras, OR
2. Rich Hannan, Ph.D., and Barbara Hellier, USDA Curators of Garlic, Pullman, WA
3. Maria Jenderek, Ph.D., Research on “True Seed Garlic,” Parlier, CA
4. Jeff Nekola, Ph.D., University of Wisconsin, Greenbay
5. Bill Randle, Ph.D., Allium Plant Breeder, Athens, GA
6. Phil Simon, Ph.D., Garlic Geneticist, Madison, WI
7. Ron Voss, Ph.D., Vegetable Research, University of California at Davis

Friday, November 2 - Growers Conference

Evening

Third Annual Garlic Is Life Dinner

Saturday, November 3

The Third Annual Garlic Is Life Festival

When names are listed, one is bound to leave someone out. If I have, forgive me. You are no lesser part of the family, just an innocent victim of my poor memory.

I list all the names to emphasize that it is not just I, nor just Chester Aaron, nor just John Swenson that has made this such an extraordinary gathering. It is due to all of us, each and every one, who have attended. It would take a pretty small person, indeed, to go away from this gathering with bitterness in their heart toward any of the participants. For those names you do not recognize, several have biographies on our website, www.garlicislife.com. For the others, not listed, you'll just have to come to Tulsa, 2001 to meet them in person.

An event such as ours cannot be organized and conducted without the work of numerous volunteers who do not receive enough credit or recognition. Our volunteer family is growing into a mighty host that, as usual, will overlook my not listing all its members. I do wish, however, to pay specific tribute to two individuals.

First, Karen Keith, my dear friend and host of her own half-hour daily TV show, “Oklahoma Living with Karen Keith,” on KJRH-Ch. 2, NBC, Tulsa. Karen has been involved head over heels in this venture from the beginning, and without her help it may never have gotten off the ground. Certainly, without her many contributions, it would not be the success it is. We all owe a “special” debt of gratitude and a warm place in our hearts for Karen.

Second, Connie Cohea, my dear friend and neighbor, who is “Miss Everything” to our efforts. This year Connie is the Chief Coordinator of Events and Volunteers. Without her efforts, well, things just wouldn't get done nor done so well. When I count my blessings, Connie is one of those blessings I count.

Come join our family. Tulsa, 2001 is the place to be. I promise you that we will do our utmost to make your visit as pleasant and hassle-free as possible. We, the Garlic Is Life Family, will be here to welcome you to the fold. The mystique, the aura that radiates from our simple love of garlic will embrace you. I promise From the Heart.

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other crop, takes up very little room, and actually looks ornamental in its seed stage. It doesn't even have to be harvested. Left to itself, it will continue to multiply underground and reseed itself from above, year after year.

Fresh, homegrown garlic will keep for at least a year. I string them to hang on the kitchen wall, or pile them in airy baskets on the counter. There is no garlic odor once the bulbs are dry (until the cloves are peeled). If any are left when the next crop is brought in, I break the old bulbs into individual cloves and plant them. However, the bulk of our annual ten-pound crop is grown from seed.

Fall Plants of Garlic, Leeks and French Shallots

Three easy-to-grow alliums make fall planting productive for Northwest gardeners who know their onions.

Karman McReynolds (July 1976)

Popular as it is, garlic is one crop everyone should grow. Elephant garlic, for instance, is large, mild and stores very well from one year to the next.

The large clusters can be the size of a luncheon plate. Each cluster will have between 8 to 10 cloves. I plant the largest cloves and store the smaller size for eating. We use around 10 pounds a year in salads and all sorts of cooked dishes.

The single large bulb is planted in October here in Sequim, Washington, or one month before hard frost in your area. The soil should be good garden loam, rock-free and porous, as the single bulb needs plenty of room to form its large cluster. We use Hybro-Tite (a granite mineral blend), phosphate rock, and kelp to enrich the soil.

Plant the large, single garlic bulb blunt end down, 8 inches apart each way. Leave an inch of soil above the tip of the bulb. In very cold areas, plant deeper. The roots will form before frost. When spring comes, the plant sends up large green shoots. A seed stalk then grows right in the middle of the other stalks, and a seed head will form in May. This must be broken off so the nutrients go into the cluster.

If you plant the small bulbs, usually a round bulb resembling an onion will form. Replanted in October, it will form a cluster the following August.

Normally garlic does not need to be watered, especially if your soil has lots of humus. The green tops will tell you if watering is necessary. They should be a healthy-looking green. The last part of July, the tops start drying normally. By August they will be dried and the garlic can be dug, leaving it in the garden for a few days to dry in the sun.

I cut the roots and dried tops off, leaving the clusters in a wheelbarrow or open boxes for some extra sun. Then the clusters are separated into planting bulbs and the smaller eating size. Large bulbs are also edible, of course.

I store my eating supply in open boxes in the garage. If the weather goes below 30 degrees F., I put layers of newspaper over the boxes, being careful not to leave them on too long. Also, I turn the garlic into another box once or twice during the winter so bulbs are shifted around and I can check for any that mold.

I have been growing this type of garlic for ten years and I never bother any more to grow the small size as the elephant garlic has spoiled me. Since it's milder, I slice up a bulb or two in vegetables cooking or a pot roast, and never bother to take it out — there is no reason to. Put through a garlic press, it tastes stronger, and makes excellent garlic butter that way.

LEEKS LIKE NORTHWEST

Leeks are really a winter vegetable. Here in the Northwest, the frost does not bother them at all. This year, I have leeks going to seed from last year's plants, which I left in the ground for this purpose. To start from seed, sow either in a cold frame or in the open ground in April. I sort of crowd them as the little plants are going to be dug up anyway to be transplanted.

When the plant is a little smaller around than a pencil, about the end of June (when root bulbs can be set out for a fall crop), dig them up. The roots will be long and stringy. Take the scissors and trim off the roots, leaving about half an inch or a little more. Do the same thing with the green tops. Cut them down to about an inch above the white part of the leek.

Now the leeks are ready to go into the garden area. Plant about 6 inches apart. They'll be ready to eat by September, and they can stay all winter in the garden and be dug as you want them.

SHALLOT HAS UNIQUE FLAVOR

The French shallot has a very distinct flavor all its own. And it's another easy-to-grow allium. A shallot will form a cluster when a single bulb is planted. I prefer to plant the large bulbs, an inch or more in diameter, as the cluster will be larger.

Shallots are planted in late spring or early summer when the soil has dried out from winter rains and snows. It is better to wait if the ground is wet. The soil should be porous, and benefits from mixing some sand in it.

Plant the single shallot bulb blunt end down. Leave the very tip out of the ground, as they like shallow planting, full sun, and hardly any watering. The cluster will form and push the whole plant right up on top of the ground. Plant bulbs 10 inches apart each way.

The cluster will have green tops on it, much like chives. These turn brown in August and die down. Dig up the clusters and leave them in the sun for a few days for further drying. Then I cut off the tops and roots and separate the bulbs, just like the garlic. Then place them in open boxes and leave in the sun for a week to dry further. Despite growing on top of the ground, shallots must still be dried very carefully; otherwise they are apt to mold.

Store them for winter eating in an open box in a shed or garage. Save the large bulbs for spring planting. Cover them with newspapers if a hard frost hits, or put them in a cool room.

I find shallots an excellent seasoning in many, many dishes. Often, I put several bulbs through the garlic press to flavor an egg casserole dish. They're also delicious chopped fine and added to potatoes when making hash browns. Slice thinly and add to soups or casseroles. Use them raw in salads.

stimulating the circulation of oxygen throughout the body's organs. Garlic is also rich in natural iodine, which your body metabolizes better than the kind that is in iodized salt.

Cynics may smirk. But there will always be those, like my Uncle George and Louis Diat, for many years the head chef at the Ritz-Carlton in New York City, who are firm in their admiration for the herb. "In times gone by," Diat once wrote, "The sages divided this world into four elements: earth, air, fire, and water. If these philosophers had been cooks as well, they would have included a fifth element — garlic."

BREATHING FREE

CAN YOU ENJOY garlic and still not offend your friends, spouse or lover?

One of the most widely used methods to kill the aroma of garlic on the breath is parsley, which is rich in chlorophyll, a natural breath sweetener. Try parsley by itself, or combine it with celery leaves. Mint's light, spring-time flavor also is said to work as a breath deodorizer. So will a few juniper berries chewed immediately after eating the herb.

Mincing, pressing, cooking or finely chopping the cloves and adding them to soup is another way to use it and still keep those close to you happy. Since the volatile oil remains stable when heated, cooking your garlic allows you to enjoy the flavor, the health benefits and your social life, too.

Necessity being the mother of invention — especially in the war on garlic breath — a Japanese farmer by the name of Toshio Nakagawa developed a unique variety which smells like garlic, tastes like garlic, but for quite unknown reasons, leaves no garlic breath. It is not yet known if the new plant has the same medicinal properties of regular garlic.

If you just do not enjoy the flavor and still want to enjoy garlic's benefits, there are natural concentrates of garlic available in capsules called "perles." Make sure you by the "deodorized" perles. Otherwise, because of garlic's diffusiveness even when it is encapsulated, you will still suffer from the telltale breath.

A good way for the wary to introduce themselves to the herb is simply to cut a clove and rub it around the inside of the salad bowl. That way the garlic flavor will be absorbed by the greens and oil, but in a mild form.

If you're a die-hard garlic lover and none of these tactics appeals to you, you'll just have to hope that, someday, everyone eats garlic raw and whole. Then no one would complain anymore.

Garlic From Bulblets Took Over My Garden

When the author started with garlic, she had no idea this versatile plant would grow like weeds.

S.K. Dark (March 1978)

GARLIC has to be one of the most ridiculously overpriced food items on the market today — for the simple reason that it is about as difficult to grow as crabgrass!

We started growing our own garlic four years ago, when I tired of paying through the nose for pairs of very old garlic bulbs in shiny cellophane wrappers. The clincher came when I opened a "new" package to find one bulb already sprouting, and the other in an advanced stage of mummification. I broke the live bulb into individual cloves and planted them an inch deep in a nothing-to-brag-about patch of Oklahoma garden soil. This was in August, and it was the last attention the garlic received until the following spring.

By onion planting time in March, the garlic tops were beginning to show new growth. In early June, each plant sent up a long corkscrew shoot. As the days passed, the shoot slowly unwound until a large seed head of bulblets bobbed chest-high in the breeze.

When the seed head's outer husk curled back, I pulled the plants and spread them over the doghouse roof to dry. Within a week, the big root bulbs were ready to cut (leaving an inch or so of stem), clean and string on heavy thread for hanging in the kitchen. I later found that garlic does equally well when cleaned immediately after harvesting, and then strung on thread to dry outdoors.

The bulblets broke apart easily by rubbing them between my hands. I scattered them on a freshly turned plot of soil and raked compost over them. By midsummer, the seedlings were as thick as new grass. I transplanted several dozen — sticking them in tree beds and odd corners where they wouldn't take up valuable garden space — and gave away the rest.

The following year, we had enough garlic to supply our own household, plus at least two other families.

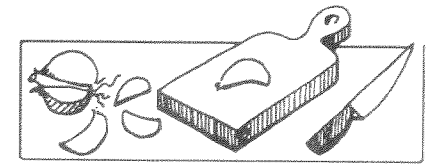
Garlic can be used at any stage, from seedling to fully cloved bulb. For storing, however, it must be mature — "gone to seed," as it were. It can be planted in early spring and harvested that same year. But we get much larger bulbs by planting in July and harvesting the following year, especially when planting seed buds instead of the bulb cloves. Garlic winters over well in almost any climate. We had a bumper crop last year after a sub-zero winter.

Garlic will grow in heavy or light soil. As with any other bulbing plant, however, the loamier the soil, the larger the bulb. We grew one batch in straight compost, and the bulbs were three times the size of those grown elsewhere in the garden.

If soil is heavy, or its root systems are heavily developed, garlic can be tough to pull. By spading them out or deep-watering the bed the day before, you can save yourself the frustration of having stems pop off beneath the ground.

Garlic requires very little cultivation or supplemental watering. Each year, in fact, I find myself planting less and harvesting more. It literally grows like a weed, popping up in the most unexpected places — which is another plus, since it is an ideal insect-repelling companion plant for almost any

Recipes



Columbia's Famous 1905 Salad

from Brian McAvoy, Virginia Beach, VA

Ingredients: Salad

- ½ Head of Iceberg Lettuce, chopped
- 1 ripe Tomato cut in ½-inch dice
- ½ cup Swiss Cheese, julienned
- ½ cup Ham, julienned (turkey or shrimp)
- ¼ cup Spanish Green Olives, chopped
- 2 tsp. grated Romano Cheese

Ingredients: Dressing

- ⅛ cup White Wine Vinegar
- ½ cup extra virgin Olive Oil
- 2-4 cloves Garlic, crushed/minced
- 1 tsp. Worcestershire Sauce
- Salt and Pepper to taste
- 1 tsp. Oregano
- 2 tsp. Lemon Juice

Toss all salad ingredients together except cheese. Mix Garlic, Oregano, Worcestershire Sauce in a bowl until smooth. Whisk in Olive Oil, Vinegar, Lemon Juice, Salt and Pepper. Add Dressing to salad and toss. Add Romano Cheese, toss again and serve.

(I enjoy this with a good Chardonnay — Brian)

PR's Roasted Garlic Ice Cream

This is a generic ice-cream recipe (from Joy of Cooking, I think) combined with generic roasted garlic (many sources: I think I originally saw it in the New York Times around 1983.)

Ingredients

- 5 heads of garlic (heads, not cloves)
- 2 Tablespoons butter
- 1 litre half-and-half cream
- ½ cup sugar
- 4 egg yolks

Instructions

Roast the five heads of garlic: peel off the outer skin but leave cloves intact and attached. Arrange on a double thickness of foil, put about ½ tablespoon of butter on top of each, wrap up tightly and bake in a 350-degree oven for an hour. Cut the tips off the cloves, still attached in the head shape, and squeeze out the roasted garlic puree. You'll get perhaps ½ to ¾ cup in total.

Mix the cream and sugar in a saucepan, heat to the boiling point and pour it over the egg yolks while whisking briskly. Put about a cup of the cream into a blender with the garlic puree and blend for about fifteen seconds to make sure there are no lumps of garlic. Mix in the rest of the cream, let cool, and use with your favorite ice-cream maker.

Notes: I made this after a colleague made a garlic ice-cream recipe by soaking one whole clove in cream overnight. It had so little flavor that he ended up throwing other stuff in, like chocolate and bananas, and the result pleased no one. I was sure that roasted garlic—lots of it—was the answer.

The result was brought to school and left in the CS lounge freezer for grad students, faculty, and staff to try. Opinions were mixed. Some people loved it and asked for the recipe (which is why I had it on-line). Others thought it tasted like having ice-cream after a very garlicky dinner. Some tried a tiny bite and grimaced. Then, of course, there were those wimps who wouldn't go near the stuff.

Cheese and Garlic Dog Cookies

From P & L Brown/PA

Ingredients

- 1½ cup Whole Wheat flour
- 1¼ cup grated Cheddar Cheese
- ¼ lb. corn oil margarine
- 1-4 cloves garlic
- 1 pinch salt

Grate cheese; let reach room temperature. Cream cheese with soft margarine, garlic, salt, and flour. Add enough milk to form into a ball. Chill for ½ hour.

Roll onto floured board and cut into strips. Bake at 375°F for 15 min, until brown and firm.



Stinky Replies

From Louis Van Deven

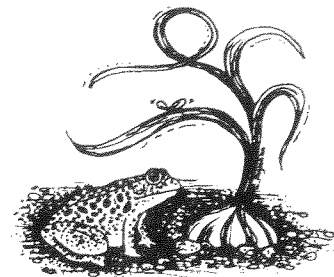
April Encounter by Het Duits Kweker

Not much to do today, it's cold and windy and I have no intention of subjecting these 82-year-old bones to such barbarity. I saw this in *Encyclopedia of Pseudoscience: Facts on File, 2000*, under the heading "Ghosts": Stubbornly malign ghosts, such as vampires require particularly drastic handling. According to Central European tradition, a wooden stake must be driven through a vampire's body, the head cut off, and the mouth filled with garlic; then the remains and the coffin must be burned. So, the ancient habit of associating vampires and garlic is alive and well in 19th-century Europe. One question: How do you cut off the head of a ghost?

I also threw this thing together when noting on the calendar that today is Paul Revere Day in Massachusetts. *Het Duits kweker* is Dutch for "The Dutch grower." I have almost forgotten my native language, and like to try to use it occasionally, although 90% of it has left me due to never using it.

I was just finishing the first part of Immanuel Kant's "Critique of Pure Reason: Cognizance a priori in Contravertance to Cognizance a posteriori." Through with light reading, I put it down when the doorbell rang. An old man was there, tension showing on his homely but honest face. "Is something wrong?" I asked. He looked around furtively, to be certain we were alone. "Yes," he replied, "I hear you grow things and might be able to help me. Last year I had a complete frontal lobotomy. After they removed most of my brain, there was a huge hole in my head and they filled it with pages from *Hortus Three* and *Gerard's Herbal*." Never before had I seen anybody with his head so full of gardening knowledge. It was evident he needed help. He showed me his family coat of arms: a background of cream gravy argent with a bar sinister and a pickled herring and sirloin steak rampant on a field of bean sprouts, with a touch of soy sauce and a growing mushroom. It was apparent he came from a once well-to-do family that had fallen on hard times. Probably thought it better to leave town without their shields than upon them. "How can I help?" I asked.

He said he had found a revolutionary way to grow garlic. And to keep the cloves in the ground despite high winds, deluge or scorching heat. He said he made a mixture of 50% Elmer's Glue and 50% Rice Krispies. Put the cloves in it and they resisted all efforts to dislodge them, including digging them up. "Can you help," he



asked. Well, I know all about hard to pull plants. If it wasn't for buckhorn, dandelions and thistles I wouldn't have lawn at all. "You must vary your formula," I told him. "Put a little dynamite in your mixture, with a long wick, then plant it. When ready to harvest, simply ignite the wick and the resulting blast will uphearth the bulb and also remove the wrappers at the same time, eliminating a lot of labor. He profusely thanked me and said he had no money to pay for this bit of sagacity, but left a handwritten poem to commemorate the day—it was April 18, Paul Revere Day.

PAUL REVERE'S RIDE

Listen my children and you shall hear
Of the midnight ride of Paul Revere,
How he filled the tank of his trusty Ford
And cranked her up till the engine roared.

He stepped on the gas and released the brake
And the old Tin Lizzie began to shake
Around the corner of the Old North Church
The Flivver went with a sudden lurch.

So through the night rode Paul Revere
With a cry of defiance and not of fear.
"She's running hot, a bearing's burning,
The front end's shot, but I'm not turning."

The brakes were grabbing, the gearshift locked,
The springs were broke, the fuel line blocked,
The clutch was slipping, the points worn down,
The pan was dripping in Concord town.

He felt the breath of the morning breeze
As the motor boiled and began to wheeze.
He had a blowout at Lexington
But plugged the hole and resumed the run.

It was Two a.m. by the village clock
When he heard the engine begin to knock,
But he kept right on till the motor died
And spread the news o'er the countryside.

The rest you know, in the books you've read,
How the British regulars fired and fled
And the farmers gathered from near and far
And presented Paul with a brand new car.

sulfur, but contains no oxygen. Allyl is reportedly so diffusive that even when a bulb of garlic is applied to the soles of the feet, its odor is exhaled by the lungs.

"The potency of these oils can be more easily understood," said the *American Journal of Medicine* in 1974, "when one realizes that one-millionth of an ounce of them is detectable in a single sniff of air."

Scientifically named *Allium sativum*, garlic is a member — along with onions, leeks and shallots — of the lily family. All of the oldest cultures invested this perennial herb with many powers — some very real, and others (like the 16th-century Elizabethans' belief that garlic is a strong aphrodisiac) a little hard to swallow. But it wasn't until modern times — following Louis Pasteur's discovery in 1858 of garlic's extensive antiseptic powers — that science took a closer look at the herb, and found that a lot of what naturopaths and phytotherapists have been saying about its medicinal properties over the years is true.

AN HERB FOR THE HEART

Heart disease has become the most common cause of death in the Western world, accounting for more deaths than all other diseases put together. In the United States, more than a million people die each year from cardiovascular illness. There are probably 30 million who suffer from some form of the disease, from hypertension (high blood pressure) to congenital defects.

Most heart catastrophes are caused by an underlying condition called atherosclerosis, or hardening of the arteries. A diet rich in fat leads to an increase in the serum cholesterol level in the blood, which helps to clog arteries and cut down the supply of oxygen-rich blood the body tissues, as well as the heart itself, receive. Hypertension, angina pains, heart attack and stroke can result.

It follows that if a way could be found to open up fat-clogged blood vessels or lower the serum cholesterol level in the body, many crippling or fatal heart attacks would be averted.

Garlic has been shown to do just that.

Thirty years ago, a researcher at the University of Geneva found that the use of garlic brought about a significant reduction in the blood pressures of 100 hypertensive patients. Dr. G. Piotrowski believed that the herb lowered the patients' blood pressures by dilating, or opening up, the blood vessels, relieving symptoms like chest pains, dizziness and headaches within a week or two after treatment.

That garlic supplementation might have a beneficial effect on serum cholesterol levels in humans was suggested in 1973 by two doctors at a medical college in Udaipur, India. After selecting ten healthy subjects with an average serum cholesterol level of 221, the doctors fed them a fatty diet including a quarter pound of butter. Three hours later, their serum cholesterol had risen to 237. But when the same ten subjects were fed a high-fat diet including garlic juice or garlic oil extract, their serum cholesterol average dropped from 229 to 213 after three hours. In addition, the subjects' blood-clotting time became longer. Since most Westerners have a tendency to form clots too fast, enhancing the possibilities of artery blockage, this is an excellent sign.

More recently, Alan Tsai, Ph.D., a biochemical nutritionist with the Michigan School of Public Health at the University of Michigan, discovered that when rats were fed a diet moderately high in cholesterol but which also included

2 percent garlic, their cholesterol levels rose about 4 percent, but stayed close to normal. The herb apparently kept cholesterol levels in check, because other animals that received the same diet without garlic showed a 23 percent increase in their readings.

"The amount of cholesterol the rats received was somewhat on the high side of what humans consume," Dr. Tsai said, but not unnaturally high. He also made the point that a diet containing 2 percent garlic was unusual. "But if it could be proved that by taking garlic you could save your life, it wouldn't be too high, would it?" he added.

How does garlic inhibit cholesterol buildup? Research indicates that garlic may cut down the body's own synthesis of cholesterol, and promote the excretion of cholesterol end products in the feces. As cholesterol levels drop, the chances of keeping your arteries clear increase, along with supplying blood to the heart and other parts of the body.

GARLIC FIGHTS COMMON COLD

Amazing as that might be, it is only a hint of the proven health values of garlic.

Everyone has suffered from the common cold. Excess mucus blocks nose, throat, and lungs, making breathing, talking, eating and living in general rather difficult. There is no known cure. But garlic's expectorant ability — that is, its power to induce the coughing up of mucus or the thinning of it so you can blow your nose — can relieve many cold symptoms.

Dr. J. Klosa, A German physician, discovered that a solution of garlic oil and water, taken in drops, cleared up the congestion of the nostrils of 71 subjects — all those tested — after only 13 to 20 minutes. Herbalists have believed for centuries that a regular intake of garlic would have the same effect as Dr. Klosa's oil.

In addition, *Allium sativum* is a diuretic, stimulant, and sweat-promoter. Its antimicrobial powers have been investigated and compared to penicillin. G. J. Binding, author of *Everything You Want to Know About Garlic*, writes: "It has been established that oil of garlic is about one-tenth the strength of penicillin." This, however, may be an exaggerated claim, as two other researchers in a highly regarded study which appeared in the *Journal of the American Chemical Society* in 1944, estimated that the active ingredient in garlic oil shows about 1 percent the strength of penicillin.

True believers in the medicinal property of the herb extend garlic's uses as a laxative, a sleep inducer, an intestinal worm remedy, a preventative against asthma, tuberculosis, polio, typhus, emphysema, cystitis and liver disease, as well as a cure for acne, allergies, airsickness and skin wounds. Many of these testimonials may overstate the potency of garlic. But maybe not. Tests at Case Western Reserve University in 1957 showed that mice inoculated with cancerous cells do not develop malignant tumors when given the volatile oil of garlic, while mice which were injected with the cancerous cells without being given the oil die. And experimenters in China have recently offered evidence for the use of thin slices of garlic in repairing perforations of the eardrum.

The preventative and curative qualities of garlic can be traced to its vast array of ingredients. Containing all the important vitamins except vitamin D, it is high in protein, phosphorus, calcium and iron. Germanium, another major constituent, benefits body functions and increases stamina by

the plants start to yellow and dry up, indicating harvest time has arrived.

After harvesting, the bulbs are broken into cloves and divided into four sizes. Jumbo cloves (1½ to 2" in diameter) are kept as planting stock and for sale as seed bulbs. Number 1 bulbs (from 1 to 1½") are sold as large seed bulbs, and, under good conditions should produce large clusters in 95 percent of the cases and an onion-like solid bulb in 5 percent of the cases. The latter should be re-planted the second year to obtain a large cluster. Number 2 bulbs (¾ of an inch to 1") will produce a solid, onion shaped, walnut size bulb. It, too, must be replanted to obtain a cluster. Any bulbs smaller than ¾ of an inch are sold for culinary purposes.

It's a tidy little hobby. And it's one that will succeed almost anywhere there is good drainage and ample moisture in a good garden soil.

Plant the small round seeds half an inch deep in rows 18 inches apart. Young plants can be transplanted in August to take the place of early peas, lettuce or radishes. Or, if left in place, thin the seedlings to nine inches apart. I've grown kale in a flower and herb bed close to the back door. There, its attractive curled and frilled grayish leaves (which go purple in frost while the inner ones become creamy or golden) can be appreciated, and it will be close at hand and sheltered for harvest in cold weather.

When frost comes, mulch around the plants thickly. The whole plant can also be covered with hay for up to a week of severe weather. Kale continues to grow when almost everything else in the garden is finished. We've picked it at Christmastime, digging it out from underneath 15 inches of snow. Take the whole plant, or just pick the succulent young leaves. You can "cut and come again" until deepest winter when growth ceases. In a warm climate, sow seeds in late summer to early autumn for all-winter harvesting. Kale seems less susceptible to caterpillar damage than cabbage. But if it's attacked, sprinkle with derris dust or pyrethrum.

In the spring, kale plants become tough and strong-flavored, then soon shoot up to blossom. Save seed from the best, tastiest couple of plants to use in the coming year. Gather seed pods when they become yellow and dry, shake the seeds out, and store in an envelope in a cool place until ready to sow. Or, you can simply let the plants self-sow, transplanting seedlings when and where needed.

When the nip comes in the air and the garden turns brown, you may be as grateful as our family for that patch of robust green which means that the kale season has come around again.

Viva Garlic!

Misunderstood and often maligned, this powerful member of the Allium family has real health values that don't always meet the nose.

ANTHONY DeCROSTA (January 1979)

The first time I ever heard of garlic, I was eight years old and my Uncle George was complaining that there wasn't enough of the pungent herb in my mother's spaghetti sauce. My mother defended her sauce light-heartedly, remarking that a little garlic goes a long way. My uncle answered her by saying that a lot of garlic goes even further. Then he told a story to illustrate his point.

FALL-PLANTED GARLIC GROWS BEST

ONE SPRING several years ago, I noticed a cluster of garlic sprouts growing where last year's garlic patch had been. Since they looked so healthy, I decided to let them grow. Around the middle of June the tops had died back, so I dug up the clump and discovered that nine full-sized bulbs had developed in a space about three inches square!

That fall I wanted to see if I could repeat the process, but on a larger scale. After the first light frosts of October, I cleared off the dead summer vegetation and spaded in some compost. In early November, once the nights had started freezing regularly but before the ground froze solid, I planted 36 cloves one inch deep and two inches apart, spacing them in such a way that my entire garlic patch took up only one square foot of garden space! On January 23 they sprouted. This seemed a bit early, so I covered them with an inch-thick mulch of shredded leaves. But a week later the tops were peeking through the mulch. They were remarkably hardy.

They grew slowly but steadily through February and March, and made spectacular top growth in April when temperatures no longer got down to freezing. The tops stopped growing entirely by the middle of May, when the bulbs started developing, and by mid-June, I had harvested a nice crop of plump bulbs, right as summer started scorching in earnest.

GORDON SOLBERG
Radium Springs, New Mexico

In 1918, when he first arrived in this country from Greece, Uncle George worked in the kitchen of a restaurant in Bethlehem, PA. The pay was meager — 20 dollars a month — and the working conditions were far from pleasant. Fringe benefits included two meals a day and a cot in a sleeping room above the restaurant. All together there were 11 cots in the room. Eleven men slept side by side.

That summer there was an outbreak of Spanish influenza. Like all pandemics, the disease spread quickly and affected many people. Thousands died in the city, seemingly overnight. After a little thought, my uncle came up with what he believed to be a surefire defense. Using the garlic from the kitchen, he ate a dozen cloves each day. He also told his roommates to eat as much of the stuff as they could. Most laughed at him. In a week, eight of the 11 had died. My uncle, now 85 and going strong, still relishes his garlic.

So much of man's fascination with garlic seems to be founded in such hardy romanticism. And ambiguity, as well. For instance, most people can't stand garlic's fierce odor, and yet many agree that the herb has undeniable health value. It's a variation on a familiar saying — in other words, something that *smells* so bad must be good for you. And this is where garlic gets into trouble with most folks. They just can't get past the stink.

Described as everything from "disagreeable" to "rank" to "abominated," the characteristic smell has marked garlic more than any other trait. Every comedian has at least one good garlic breath joke to tell (*First Woman*: Why do you feed your children garlic at bedtime? *Second Woman*: So we can find them in the dark.) It is the oil of the herb that is responsible for the fiery breath, and it is this same oil that is the key to its influence in the kitchens of the world and in the lore of herbal medicine. The active properties of the oil have been traced to a substance called allyl, which is rich in

ORGANIC GARDENING

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GARLIC — GOOD for YOUR HEALTH and BAD for the BUGS!

This New Jersey gardener grows hers in flower pots on the window sill for the kitchen, and also out in the garden to protect her tomato plants and figs from their insect enemies.

ROSE E. NAGROD (October 1971)

No success — that's what my friends reported when I told them that they could grow garlic in flower pots on the kitchen window sill. But I'd been hearing all those wonderful things about garlic for years — it discourages bugs in my garden when planted among the tomatoes, and is also a specific for high blood pressure — so I knew my friends just had to grow this highly useful plant. It isn't a matter of a green thumb, I told them, but just doing things the right way.

A close look at those right things reveals that to four cups of humus peat (not peat moss!) I add one-half cup of perlite or one cup of clean sand and one-half cup of bone meal. When everything is thoroughly mixed, I carefully divide the garlic and plant three unpeeled large cloves upright with the root part on the bottom in one inch of soil and then fill the three-inch pots, covering the cloves completely.

After watering thoroughly, I place the filled pots in plastic containers on my kitchen window-sill, which has a southeast exposure with sun practically all day. For good growth about 14 hours of light is needed. I have two such plastic containers each holding three pots. I prepare three pots for one container, and a week later I fill the other three pots with the prepared soil, and plant the large garlic cloves. It takes about seven to ten days, depending on how much sun and light there is, for the shoots to begin growing. The shoots are tall enough to cut and eat when they are about three inches high.

When the shoots become thin and yellow, I know it is time for a planting of fresh garlic cloves. The old cloves are removed. They are hollow outer skins, empty because the inner part contained the nutrients that helped to grow the shoots. Selected large cloves of garlic are planted again using the same procedure. They should be watered whenever the top feels dry. Once every two weeks I water with liquid fish emulsion. To make liquid fish emulsion add one teaspoon fish emulsion to one quart of water and mix thoroughly. The garlic can be purchased in any supermarket for about 79 cents a pound. Select heads of garlic that have large cloves.

Because I cannot have enough of this highly beneficial vegetable, I also plant it in my outdoor garden where it has proven itself by discouraging insects around my tomatoes and fig trees. I works out something like this.

Plant Garlic Between Tomatoes

The first week in May is usually the time to plant tomatoes outdoors in Maplewood, New Jersey. After setting

my tomato plants 30 inches apart in a row, I dig two or three holes between the plants, each about eight inches deep and ten wide. Next I place about five inches of compost in each hold, then fill the hole to a rounded top with the mixed humus peat I use for the indoor garlic pots. Selected large garlic cloves are planted about two inches deep, watered thoroughly and covered lightly with grass clippings. About 12 inches behind each tomato plant I insert all but one inch of a tall empty coffee can after holes were made in the bottom of the can. These cans are for water to reach the roots when needed to help the growth. The metal can seems to help growth, too.

For the fig trees, I dig an eight-inch-deep circular trench, starting 12 inches away from the tree and extending out about ten inches. Fill with compost and the prepared humus peat, and plant garlic cloves two inches deep about ten inches apart in one row around the circle. Follow same procedure of watering and the spreading of grass clippings. Insert several empty cans as described around circle of planted garlic.

Do not cut off the shoots when they appear. The garlic plants get a good watering with liquid fish emulsion or manure tea about every two weeks. The green shoots will stand up straight until the fall, when they turn yellow and fall over. The cloves form bulbs in the soil but are small the first year. They can be pulled, but I allow them to remain in the ground all winter and suddenly in May the green shoots push out of the ground. They are allowed to grow receiving the same gardening care as received the year before. By the fall season, when the green shoots are yellow or fall over, I pull them out allowing them to dry outdoors for several days.

With my system of having a written sketch plan of my garden as a record, I know what garlic plants are in the second year and can be pulled out, leaving the one-year garlic plants for the following year. In this way planting garlic each year, I have sufficient garlic organically grown for eating and for plantings while growing natural protection for the soil.

Plant Elephant Garlic in August

I prepare the soil for the elephant garlic the same way as for the other garlic and they receive the same fertilizer and care. However, I plant the elephant garlic cloves in mid-August. They must make root growth before cold weather sets in, which can be late September in my part of New Jersey, and are allowed to remain in the ground through the winter. In colder regions the planting must be earlier, perhaps late spring or summer, to allow the garlic cloves to make root growth before the zero weather sets in.

All garlic plants should be mulched with hay or leaves as a winter protection. The soil for all garlic plants must be kept in a loose friable condition to permit the bulbs to expand and grow large, and the weeds must be kept out. Regular watering should stop in late July or August of any garlic plants that are to be pulled in late September. Keeping the soil cultivated and mulched will conserve moisture and will give the bulbs a chance to mature.

In the spring the garlic plants send up a center stalk, and a bud develops. The buds should be snipped off, otherwise if they are allowed to develop, they will flower and produce seeds. The bulbs of elephant garlic do not develop into large bulbs when they develop a blossom, and so the garlic bulbs that are allowed to go to seed are not pulled out but allowed to remain until the following year to allow them to grow large.

Stored garlic must have a good air circulation when dried and kept in a cool, dry place. Stir the bulbs every week to change their positions and prevent spillage.

GARLIC KILLS MOSQUITOES CALIF. SCIENTIST REPORTS

Garlic wiped out five species of mosquitoes completely — 100 percent — in laboratory tests, a University of California scientist reports. Dr. Eldon Reeves of the Division of Biological Control, and graduate student S.V. Amonkar, have discovered that garlic contains a powerful natural insecticide which is present in the oil of garlic.

The oil fraction, even though not pure, showed 12 times as much power to kill larvae as the crude extract.

WILL GARLIC REPLACE DDT?

It's already doing an effective job on malaria mosquitoes in India, reports a British research association—whose do-it-yourself formula for gardeners is here for you to try.

LAWRENCE D. HILLS (September 1972)

Now that the U.S. has banned DDT almost completely, the hue and cry over what to replace it with — and how much loss in crop harvests must be expected — has already reached epidemic scale. Europe, Sweden and Denmark have totally halted DDT use since 1970, while France, Hungary, New Zealand, Japan and West Germany all have tight restrictions. Britain merely imposed a voluntary ban in 1971, which has reduced consumption from 250 tons a year to 140.

In America, it seems the next six months will be spent on training agricultural workers in the "safe" use of the new chemicals, "which, although much less persistent than DDT, are far more poisonous," according to Dr. G. Pank, writing in the *Journal of the American Medical Society*. Dr. Pank reports growers are changing over to the organophosphorus compounds, which are actually far from new. In the five years before 1963, they killed 6,000 farm workers in Japan and just recently a 16-year-old boy who walked into a tobacco field that had been sprayed with parathion has died, for even a few drops contacting the skin can kill.

So, the constant demand is for safe alternatives — alternatives that must be both effective and cheap. American farmers insist that giving up DDT for boll weevil control, for example, would cut the yield of cotton by 5 percent and up costs by 40 to 50 percent, while British farmers still cling to dieldrin sheep dips despite the risk to our last ospreys. Yet there is now no need for any country to turn from chlorinated

hydrocarbon (DDT) compounds to organo-phosphorus poisons. These merely exchange long-term pollution danger for short-term accident risks, producing a slaughter of friends and foes alike that can mean more pests after spraying than before, since the survivors increase without their natural enemies. Of course, the chemical firms are all for the change, like cigarette companies turning over to filter tips.

Ever since 1958, the Henry Doubleday Research Association has been working to find a safe, cheap and simple substitute for DDT that spares as many predators as possible, and yet could be more powerful and stable than derris, pyrethrum, quassia and ryania.

The "Green Revolution" grains are supposed to mean food for millions, but they have evidenced a need for more pesticides. If we do not find a substitute, the countries that have banned DDT, like the United States, will simply go on exporting it to undeveloped countries, adding to the million tons and more that permanently pollute this world we share.

Now it looks as though Monsignor David Greenstock, vice-chairman of the Association and one of its keenest experimenters, has found the answer. His report, "Garlic as an Insecticide" (available from The Henry Doubleday Research Association, 20 Convent Lane, Bocking, Braintree, Essex England) has been sent for review to publications in all the countries that need a simple, do-it-yourself substitute. His work and correspondence with Indian research stations has produced a garlic killer for the malaria mosquito, now increasingly immune to DDT, and cooperation with experimenters in all countries could develop the new insect control the whole world needs.

Greenstock's report describes a number of solvents and emulsifiers for garlic, including some that will keep the substance active on the leaves for up to 30 days. Others enable weak solutions to be watered on the land to kill underground pests. These have produced kills of 87 percent in wireworm infestations, 83 percent for cockchafer larvae (which promises an answer for the grass grub of New Zealand), and 91 percent for mole crickets, a continental pest related to the sugar cane root-eating species in the West Indies. The keeled slug that eats holes in our potatoes is unknown in Spain, where David Greenstock works, but he has scored an 82 percent kill of the gray field slug.

In addition, the penetrating effect of garlic destroyed 95 percent of the onion fly larvae in a field-scale trial, which promises well for an attack on the DDT-resistant strains of cabbage root fly and carrot fly. The emulsions were highly effective against cabbage white and ermine moth caterpillars, scoring 98 percent kills, and without passing any undesirable flavor to the crop, for the insecticidal principle has nothing to do with the smell, which is gone in four days.

In a laboratory experiment, the garlic solution killed 87 percent of the pea weevils, and though these only scallop the edges of pea seedlings in England, this discovery promises success against the related boll weevil in cotton, which most American growers insist needs DDT. At the same time, it spared the Colorado beetle, however, and this quality of hitting weevils and missing beetles, appears to be near to that of nicotine, which is harmless to ladybirds and their larvae. But there is scope for a great deal of research to find the emulsifiers and solution strengths that will be safe for as many of our friends as possible.

By feeding it to chickens, mice and rabbits, Greenstock has established that all the garlic sprays are harmless to birds, livestock and wild life. In fact, they improved the health of the experimental animals compared with the non-garlic-receiving controls, and an accidental outbreak of myxomatosis in the rabbits showed they had gained greater resistance. Many nature-cure authorities will understand why increased work is now going on to establish the medicinal qualities of garlic.

David Greenstock has discovered that the active principle of garlic, now called "allicin," is a complex mixture of substances which are mainly allyl sulfides. These are produced by enzyme activity in the bulb, where their balance and effectiveness depend on the presence of assimilable sulfur. This sulfur is produced in the soil by a number of micro-organisms, mainly certain tiny fungi that cannot grow without ample humus.

It is this fact that has produced varied results in the past, with emulsions made from one batch of garlic killing a pest, and then the next one leaving it leering triumphantly at the gardener. Commercial garlic bulbs, or the expensive oil made from them, could have the wrong mixture of allyl sulfides because they were grown with chemical fertilizers and not enough humus to support the fungi, while David Greenstock's own — or those from local peasants — would have plenty. It is possible that measuring the assimilable sulfur in garlic (and probably onions) may be the first definite test to show a clear analytical difference between organically-grown and chemically-grown produce.

Organically-grown garlic is likely to be scarce. One way to start your own stock is to buy bulbs from a grocer or health food shop, split them into their 6 to 10 individual cloves, and plant them with their pointed noses just below the surface. Keep six inches apart and a foot between rows so they can be kept clean of weeds by hoeing (or mulch) on well-composted soil in full sun. Lift them when the foliage dies, and store in an old nylon stocking hung in a dry shed, just as though they were onions or shallots.

Greenstock's first do-it-yourself recipe can be used with bought garlic bulbs, though organically-grown are far superior: Take 3 ounces of chopped garlic bulbs and let them soak in about two teaspoonfuls (50 cc) of mineral oil (toilet paraffin) for 24 hours. Then slowly add a pint of water in which ¼ ounce of oil-based soap (Palmolive is a good one) has been dissolved, and stir well. Strain the liquid through fine gauze, and store it in a china or glass container because it reacts with metals.

Try it against your worst pests, starting with a dilution of 1 part to 20 parts of water, then going down to 1-100, so you use as little as possible, for garlic is expensive — though cheap enough for any peasant, coolie or poverty-stricken American cotton farmer, green-pepper grower or sweet-potato storer, provided they grow their own with compost.

The Henry Doubleday Research Association (20 Convent Lane, Bocking, Braintree, Essex) would be very glad to hear from garlic users in all countries, for this work can only be done by sharing the knowledge of the gardeners of the world, like friendly neighbors swapping hints, as though frontiers were fences.

GARLIC AND HUMAN HEALTH

FOR CENTURIES garlic has been a common European remedy for colds, coughs and sore throats. In the March 1950 issue of *Medical Monthly*, a German magazine, Dr. J. Klosa reported that garlic oil kills dangerous organisms without attacking other organisms vital to the body. Klosa experimented with a solution of garlic oil and water, sometimes adding fresh extract of onion juice, which enhanced the solution's effectiveness.

Studies by Dr. F. G. Piotrowsky of the University of Geneva revealed that blood pressure was effectively lowered in 40 percent of his hypertensive patients after being treated with garlic. In the July 1, 1948 issue of *Praxis*, Dr. Piotrowsky reported that garlic opens up blood vessels, thus reducing pressure. He also noted that dizziness, angina pains over the chest, and headaches often disappear with garlic therapy.

More recently Polish scientists reported from Warsaw in 1969 that bacteria which resist other antibiotics, including staphylococci, succumb to a pulverized garlic preparation. Scientists in the Soviet Union reported last year the production of an actual pharmaceutical antibiotic, allicin, which they say destroys only specific harmful germs, leaving natural bacteria untouched.

GROWING GREAT GARLIC

or a hobby that can succeed anywhere there's good soil, ample moisture and drainage, try growing elephant or German red garlic.

EARLE RENNO (June 1972)

Here, in the Pacific Northwest, we grow German red and elephant garlic for pleasure, good eating and a small profit. And, from the way I've seen my crop grow, I think our reasons could become, the rule-of-thumb for a good many other people.

Elephant garlic closely resembles the normal variety except that the plant, flower cluster and bulb are at least 3 to 4 times larger. Another difference is flavor. Elephant garlic has a milder aroma and more delicate flavor. It can be eaten raw and makes a nice, sweet pickle. German red garlic is a very strong or hot garlic. It will produce large clove clusters, too (4 or 5 to the pound), but not quite as large as the elephant (averaging 2 to the pound).

We use the same growing methods for both types of garlic. Well before planting, we cover our garden lot with about 4 inches of at least half-rotted horse manure and wood shavings obtained from a nearby stable. About the last week in September or the first week in October, I use a 3-cornered hoe to dig a trench in the manure. I then plant the garlic, blunt end down, shoving them half-way into the dirt at the bottom of the trench. Then I rake the soil in, half filling the trench.

When the plants come up — usually about the first part of December — I loosen the soil around the new shoots with a hand rake. Later, in June or July, a few heavy waterings help increase production. As the seed heads appear, we cut them off, allowing the plants to devote their energy to growth rather than seed production. Then, in August or September,