



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

The Garlic Press



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REMEDY, HEAL or CURE?

Anecdotal accounts of the efficacy of garlic as an active agent in the reversal or dispersal of disease or imbalances in health abound. All too often, however, when tested using scientific methodologies that set certain parameters, the evidence can seem to be in question. Why is this? The fault at times seems to lie between two premises of culture and medicine. Western medicine is the epitome of technological triage, yet often develops protocols through deductive or reductive reasoning, applications and implications. This disassembly of the whole being into specialist methodology has its way of approving or disapproving of strategies that deal with symptoms. Specialists and their ways of looking may at times not be seeing a bigger picture. Alternative medicine offers choices that often are precluded from the former list of options, yet at the same time require a certain participation or belief that is necessary to reverse bodily conditions and attitudes that have been thrown out of order.

As food is medicine, garlic is one form of medicine. In reviewing the literature of garlic and its references to its purported use in reversing disease, one finds an almost inexhaustible host of conditions to which garlic became a force of healing. We alliphiles truly do love our garlic! It empowers us in ways we may at times not fully understand. Tonic is a good word to reference when it comes to our favorite bulb. It is invigorating, physically, mentally and morally, and it works on many dimensional levels concurrently. It brings our bodies into a greater sense of balance that often cannot be seen in the numbers that doctors look at. We all shuddered when the link to cholesterol and garlic in double blind studies using fresh, powdered dried and encapsulated garlic failed to show a significant impact on serum cholesterol levels. Throw out the baby with the bath water? Oh, my goodness what happened? Well, many things involving dosages and expectations of results were not borne out, but perhaps what also failed to enter into consideration is that garlic makes us feel better! It hasn't been added to foods for over 10,000 years just because someone thought it was medicine and that you had to use it. It is functional in so many ways: as a preservative to meats, as a spice for stews, as a topical protectant to fungus or insect bite, as a worming agent for animals and on and on and on.... It is part of life and gives us strength and resilience, not just mineralogically with its sulfurous sting, but as an active defense against bacteria and viruses. An aristocracy that wrests power from the people and instills fear surely would shun garlic, as it historically has done. Today, that is becoming the stance of a "medical elite" because control is the end game for systems that seek profit. Peasants did not need to be educated about food and health, it came as wisdom from the Earth. Generations adopted it like wise land use policies because it worked. Religious power mongers associated it with evil and vampires again to control the populace that it had fed its fear based beliefs on.

It has always been, is and will be, we the people who must take responsibility for our own well being. A food is not a pharmaceutical, and garlic is not quite yet manipulatable enough to patent for profit and therefore it is being cast aside by the medical community. Is garlic then a cure? a remedy? A healing agent? Of course it is! Yet still it is thrown into the helplessness of anecdotal history, mythical madness and generally stinky business.. .The force that moves us to plant, tend and harvest this bulb has perpetuated this crop and adopted its wisdom worldwide. It is not insignificant and is a part of life itself. We that carry it with us and offer its magical presence to our families and friends, do so in solemn but celebrational joyfulness. Its aroma imbues our action, its fire warms our hearts, and sharing its culinary delight frees us to FEEL healthy! Ultimately, it is the magical elixir of intention that seals in the wisdom and wonder of garlic. The membrane of this bulb enwraps us all. No bystanders allowed, we partake of health daily and it is a part of the way we live our life that determines efficacy. Go to a garlic festival and you will find people full of vigor and full of life. We all carry that essence with us wherever we go. So the next time this or that study or laboratory pronounces garlic ineffective or lacking in some way, forgive them and realize that you have been given a secret that is garlic, a secret that folks find on their own. Happy health to all!

(B.D.)



OUT OF MY HEAD

Bob Dunkel

The journey of garlic exceeds our memories, both culturally and historically. Whether from papyrus, rock wall or stele, it has made its mark on our oldest artifacts and even then, that memory is much newer than the clove or bulb. Even in the dichotomy of part or whole is reflected a greater mystery that propels it forth each Spring as the parts wane and the vision of fullness emerges. Garlic is! The world, however, is changing. The non-locality of physics has become the produce of the world. Markets of old in dusty byways are all now stirred by the influx of trade and lubricated by the arbitrary nature of currencies. Farmers from Ireland are short on quality garlic seed and contacting us, as well as New Zealanders and Aussies and even tiny nations that see the flooding of Chinese garlic and wonder what in the world is going on. Those of you that have computers should type the letters FAO into a google search bar and take a look at world trade flows by commodity. It is a real wake-up call if you think things aren't changing rapidly. Look at what crops we produce and lead production in, and then check China. Exploding populations may not have environmental wisdom, but they know the land supports them. Here we seem to believe more in stock markets than farmers markets. For a while, I must admit I harbored anti-Chinese sentiments and out of that McCarthy era paranoia that fears terrorism more than communism, I came to realize that we cannot rest on our laurels. Our falling dollar cannot buy the fruits and veggies that we were accustomed to years ago. I've researched production systems in China and besides having the numbers to produce what is nearly 80% of the world's garlic, they also have built the laboratories to do the necessary work of improving quality. It's our government that has dropped the ball on agricultural research and quality controls. Budgets are falling like overripe fruit and farmers are dying quicker than they are being replaced, and so we need to get our heads and hearts back in the game. We don't buy health, it has to be incorporated into our lifestyles and we need to fuel our bodies with food that is not just safe, but fresh, nutritious etc....you all know the drill.

So let that garlic emerging each Spring reinvigorate your commitment to the Earth and take a moment to sink your knees into the softened soil and ask to be reminded as to your role on this planet and give thanks to this land you have to work with and the crops of garlic or beans or whatever vision of growth you have. Spring is the true new year, as true as the cycle of moon, and Now is the season of intention. Out of the long nights of winter bring forth your dreams and insist on stepping up and into being a part of the great changes happening worldwide, and revive the heart to give service and strength to your endeavors and know that this garlic which has chosen you to be a part of its path, is older, wiser in its ways of survival and, therefore, a teacher to us all!

Garlic is.

There is only one clove, eternal. It borrows from you, fingers, arms, intention and is only ever always now growing. In planting it is already harvested, in growing it rests. We hold ourselves in our hands and it speaks through these lips, yours and mine. In families of bulbs, that same eternal self now shines and beckons. In endless variety it is the same. The knees that bend and fall upon this one earth have eyes Chinese, or Italian or our very own, and there is no difference at all. We create those divisions of type or nationality or seen as climatic change and yet there is one clove, planting itself through you and through me. The crow calls forth to remind us there is only now. The rains and winds dance to its melody and sing a simple song...and this earth of which there only is everything reminds us again and again and again to sing along, to whistle while we work and to celebrate now! Its cycle is our life, relived every second in a thousand different faces and forms. The fire it fuels and burns within and without us is the eternal flame. Garlic is. Out of compost heaps and dumpsters it rises, raising its green flag, that eternal flame of youth that seeks out its very self as we mirror also everything. It does not die and yet is always dying to form as it rises again from dust and the debris of yesterdays to arrange the future that is still ever only now. The miracle of seed, the cycle of acorn and oak, seasons unending still send forth the promise of rebirth, and the constancy of change that itself is changeless. Behold the clove in all things. It is the smile, the rainbow and the storm. The sulfur regardless of form. That self same moment of recognition that you and me and it and them and all that really is, is a dance of color and sound and one breath planting and harvesting, breathing in and out the same one light that sustains us.

Garlic is. (B.D.)

THE TRANSPORTER

One clove makes you taller
One clove makes you small
And the ones that Mother gives you
May do anything at all!
Go ask allicin, when we're gonna fall...
The bulb is already encapsulated
Sealed and timeless, but
The bottles of pills all have a date
An expiration that they pass on to us.
The genie in the bulb is wise
Does not want out, and
Is not trying to fool you!
Yet even that bulb is connected
To sulfur, and silica and soil
Caught in a hydrological spin cycle
A ferrier of mineral magic.
It does not spice up your life
It is your life!
Its wholeness is its form
Of information.
Trade is not imports and exports
But transports...
We've forgotten how to graze
And to know where the treasured growth is
We don't lick the minerals
But we barter and bargain
In hopes it will sustain us
Thinking we are separate and smart.

(B.D.)



Stinky Replies

Hi Bob,

I found your name on the Garlic Seed Foundation website — which is a mine of information! Well done!

We are supplying certified organic Garlic to our customers in Ireland. Due to the very difficult weather conditions last year in Europe, there is only very little planting Garlic available. We consider, therefore, importing, e.g. from the East coast of the States.

Do you know of a certified organic grower in that area who could potentially supply up to 5 tons of certified organic Softneck Garlic? A variety suitable for growing in our climate, moist and cool? (We used to sell PRINTANOR)

If you have any information, email or website of a potential supplier, I would much appreciate if you either forward our email to that grower or let us have their contact details.

I know it is not part of your “job description” to mediate business contacts. However, it would be extremely helpful to us and our customers, who would love to be able to grow some garlic this spring. (You know how dependent one can become from that crop!)

Thank you for your time.

With best regards

Manfred Wandel

Fruit Hill Farm

Bantry, Co. Cork

Ireland

Tel 1100353/27/50710

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The Irony of Organic Garlic From China

After working (and shopping) at market in local produce bliss yesterday. I arrived home, only to realize I was out of garlic, a pity since I had Virginia-grown bulbs within arms reach just a few hours earlier. Oh well. I thought. I can pick up some when I'm at the Thai grocery. where I needed to pick up some soy sauce and ginger root.

In the back of the store, I found garlic grouped in threes, packaged in white netting. The label said, “Made in China.” Garlic from China? Something is wrong with this picture. I promptly returned it to the bin, thinking of a plan B.

My neighborhood Whole Foods Market surely would have garlic that had not traveled across two or three continents to get here. The American garlic capital of Gilroy, Calif., was a long way from Arlington, Va., but it was a lot closer than China.

My helpful kitchen assistant offered to do the job, and in the meantime. I began preparing dinner. As I unload the bag, I notice the familiar hite netting that I had just spurned in the Thai grocery. Lo and behold, the label stating “Organic Garlic” also indicates on its back side, that it’s “Made in China.” Say it isn’t so!

I am immediately reminded of a passage from “The Omnivore’s Dilemma,” by Michael Pollan, in which he debates the merits of “organic” asparagus that has been flown in from Argentina:

“My plan had been a cozy winter dinner, hut I couldn’t resist the bundles of fresh asparagus on sale at Whole foods, even though it set me back six dollars a pound. I had never tasted organic South American asparagus in January, and fell my foray into the organic empire demanded that I do. What better way to test the outer limits of the word “organic” than by dining on a springtime delicacy that had been grown according to organic rules on a farm six thousand miles (and two seasons) away, picked, packed and chilled on Monday, flown by jet to Los Angeles Tuesday, trucked north to a Whole Foods regional distribution center, then put on sale in Berkeley by Thursday, to be steamed by me, Sunday night?”

So. for \$1.29. I had three bulbs of organic garlic from the other side of the world that arrived in my kitchen - only to be moldy and partially unusable. I guess I’d be moldy too if I had to travel 8,000 miles in a veil of white netting.

We in the wealthy world have access to food from all over the world to satisfy our epicurean appetites - lamb from New Zealand, oranges from Israel, char from Iceland. But garlic from China? Can someone please enlighten me and tell me why it’s a good idea to expend fossil fuel to transport little allium bulbs from the other side of the world? I still can’t get past my disbelief.

[Reprinted from “A Mighty Appetite,” a blog by Kim O’Donnel.]

GARFIELD



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JIM DAVIS B-30

Never Trust Anyone Who Doesn't Like Garlic!!!

I do love Garlic, but I've discovered one unfortunate side effect. Whenever I eat garlic, my wife tells me that it comes out of my pores, which we all know is normal. Ever wonder what happens when you eat way more than you should?

I found out one night when I went to an Italian restaurant with my wife and had a garlic chicken dish. I thought this would be your basic chicken sauteed with a teaspoon of garlic, but no. This was a chicken breast slow cooked in a Marinara sauce with at least 25 whole cloves of garlic. I ate, and loved every single clove, even though I was quite red faced at the end of the meal. The next morning, my wife was in the shower, and naturally, everything had made its way through my system. I went to use the bathroom while she was in the shower.

The stench was incredible. Repeated flushing and air freshener did not help. She was so angry that she didn't talk to me for the rest of the day.

So, love your garlic, but be careful of your mate.

Garlic Tariq

Garlic is the most amazing food stuff, isn't it? My wife and I love to make this roasted root vegetables mix with carrots and onions and potatoes. We always throw in about 25 cloves of garlic just to "kick it up a notch," as fellow garlic lover and famed New Orleans chef Emeril Lagasse would say.

Yay garlic!

Lady Athena

Oh yes! I've never trusted anyone who doesn't like garlic, never ever trusted anyone claiming to be a "real" vampire...find a connection. I like garlic, smells good after smashing the clove with the flat of a knife, then hackin' it up into little pieces to garnish various things with.. yummy yum yum.

Strapping Young Lady

I know the positive power of garlic.

I have witnessed first hand some incredible, miraculous cures from the little crusty plant.

My family used to laugh at me for my strange affiliation to it, but after many years of witnessing it's healing properties, I now have all of them on my side and they have no problem swallowing a garlic clove at the first instance of a cold coming on.

I will continue to sing it's praises and use it as much as I can. It is lovely to find something so pure and untouched by our "chemical possessed" society.

Ride On you little Crusty Plant!!!

Frank C.

I was never big on garlic until I started going to a great Mediterranean cafe. I would order Chicken Kabob and it would come with a little cup of garlic sauce on the side - this is chopped raw garlic with olive oil and lemon juice to make a paste. First taste would make your eyes water but the more I ate it the more I loved it! These days I order a bowl instead of a cup and eat the whole thing! I crave it and end up eating at this place 2-3 times a week. I eat so much I feel a little sick to my stomach after but I can't help it! Yes, I smell it - especially when working out, but who cares? But then again..., maybe that's why I'm still single...!)

Archana

The Swedish way of saying: Good Morning!

You are just on your way of getting through the misty landscapes of dream passing on to get awoken. But you just wont get up the eyelids. Then someone kisses your mouth and you get awoken from the dead. The anti-vampire wife with her breath from hell has made her magic on you. There will never be any more sleep for you - you think as the garlic scent passes in to your newbooted brain.

My wife knows how to get me going. This is how we do in our Swedish family. I wont tell you how we get to sleep. Use your imagination. But don't think about garlic this time.

Mike

I love garlic or you can say garlic has always played a very important part in my life. My mother is a health nut. When I was born she put garlic in my formula. After the bottle I was made to drink garlic-nade (like lemonade only made with garlic). Now as an adult I take the capsules. Never a day without it. I have never been sick... no childhood disease... look very young for my age.)

Sonja Robson

There is a place in this world where garlic is eaten more than bread, where garlic lovers can have no fear, an entire country whose very air would suffocate the ultimate prince of darkness....

This land is not a place shrouded in mystery and enigma, but readily accessible for those with the will and the cash to hop on a plane...

It is... The Republic of Korea

Korean cooking is known for three ingredients: scallions, red pepper, and copious loads of garlic. Garlic is the staple spice - it is Korean salt. If you have a Korean National as a friend, get into their car one day and you'll see what I mean. Its an instant vampire trap. Having been an exchange student in Wallachia (South of Transylvania, in Romania, the kingdom that Vlad Tsepesh (Dracula) ruled over) I know that Craiova (a city in Romania with a large Daewoo plant and Korean population) is one city that is simply off limits to vampires.

I enjoy Korean cooking (especially the garlic) so much. My best friends are Koreans. They are the most wonderful people in the world. I'm moving there and going to university there for the next five years. I tell you this - they are full of garlic and form very trustworthy friendships when you truly do as they do. This means that you must be trustworthy, and that means, yes, eating a lot of garlic. An entire country has proven your theory...

I just wanted to tell you that, yes, yes, the most trustworthy of people eat the most garlic...

Will Massey

I frequent Goth clubs and have found that a garlic necklace keeps the vampires away. Nothing is more unsettling than a date where everything is going along just swimmingly and then your date unexpectedly puts in his ceramic fangs for a midnight nibble. Garlic necklaces: helpful in the screening process, and not a fashion cliché like the mundane cross.

[Source: www.nevertrustanyonewhodoesn'tlikegarlic.net]

From the Garlic Web ...

U.S. Growers Say China's Grip on Garlic Stinks

by Scott Horsley

All Things considered, June 30, 2007. With more than a billion mouths of its own to feed, China has not been a major exporter of human food to the U.S. But one item in the grocery store that is likely to come from China is garlic. That's worrisome to the California town that has become synonymous with the pungent plant.

Garlic Central

Gilroy, Calif., bills itself as the nation's garlic capital and hosts an annual Garlic Festival during the last week of July. Both Gilroy and garlic have come a long way since the festival began almost 30 years ago.

"It was hard to have repeat dates, because you smelled like the garlic," says past festival president Gene Saakahara, who worked in a garlic plant as a college student. "We've come from the stinking rose to now a world-famous festival."

This year's party features a Garlic Idol singing contest. (The prize is 1,000 gallons of gasoline.) And there's an Iron Chef-style cook off, dubbed the "Garlic Showdown."

The real showdown facing the Gilroy industry, though, is with garlic growers across the ocean. Imports of cheap Chinese garlic have surged in recent years, and Americans have snapped it up to fill their growing garlic appetite. Last year, for the first time, garlic imported from China outsold garlic grown in California.



Scott Horsley, NPR

Bill Christopher's family has been growing and packing garlic in and around Gilroy, Calif., for more than 50 years. The local industry is now challenged by cheaper imported garlic from China.



Scott Horsley, NPR

Mechanization has helped California garlic producers cut their labor costs. But California garlic still costs about twice as much as garlic imported from China.

'Tsunami' of Chinese Garlic

"This is, in essence, the second tidal wave — the real tsunami of Chinese garlic," says trade lawyer Michael Coursey, who represents California growers.

The first wave came in the early **1990s**, when China was found to be dumping garlic on U.S. docks below cost. China was slapped with a hefty tariff, which kept the garlic at bay for a few years. But since **2001**, imports of Chinese garlic have multiplied 15-fold, while California production has shrunk. Coursey thinks garlic is just the beginning.

"It isn't Airbus," Coursey says. "However, it's a paradigm of what's going to happen in agricultural trade from China in seemingly more important products, if something isn't done."

Since Chinese imports first appeared in the United States, California's biggest garlic packer, Christopher Ranch, has looked for ways to cut its own costs. Garlic bulbs that used to be packed by hand are now weighed on a computer scale and sorted automatically into cartons. Sizes range from "Giant" to "Super Colossal."

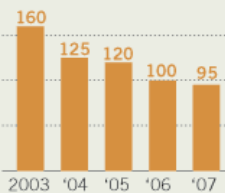
In a nearby shed, garlic bulbs are broken into cloves and peeled with a blast of compressed air. Customers seem to like the convenience. Peeled garlic has become the biggest seller for Christopher Ranch. And because the bulbs for processed garlic don't have to look good, they can be harvested by machine, which saves about 10 cents a pound. That's still not cheap enough to compete with Chinese garlic, which wholesales for about half the price.

"They can peel garlic cheaper by hand than we can here with machines," says Managing Partner Bill Christopher.

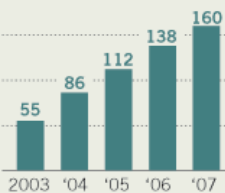
China's Grip on Garlic

In millions of pounds

Fresh Garlic Grown in California



Fresh Garlic Imported from China



SOURCE: Commerce Department; California Fresh Garlic Producers

Fighting Back by Selling Safety

California garlic producers continue to fight Chinese imports with tariffs. But they are also hoping that newfound concern over tainted Chinese imports will encourage more consumers to buy American.

"Between the toothpaste and the dog food and the children's toys, safety and food safety is not a top priority in China, where it is here in the United States," Christopher says. "So if you want to have something that you know is safe, you want to buy from this area."

Of course, California produce caused its own share of food-borne illnesses last year. But the FDA is considering extra scrutiny of food imports from lightly regulated countries, such as China.

California growers also hope to convince price-conscious shoppers that their garlic has more flavor. That view was seconded, after a blind taste test, by Executive Chef Bernard Guillas of the Marine Room restaurant in San Diego.

"Wow!" Guillas said. "California garlic rocks!"

Most American shoppers don't share the chefs' professional palate, which is why supermarket shelves are loaded with Chinese garlic.

But Bill Christopher hopes there are enough consumers willing to pay extra to preserve California's shrinking share of the market. Christopher actually expects to plant more garlic this coming year than he did last year. And he promises the Gilroy Garlic Festival isn't going anywhere.



Scott Horsley

Chef Bernard Guillas says California-grown garlic packs more flavor than garlic imported from China.

Study: Antibacterial spices explain why some like it hot

Paul Sherman, professor of neurobiology and behavior, displays two of the most potent bacteria killers -- scallions and garlic -- in the Statler Hotel kitchen.

By Roger Segelken, Cornell Chronicle--Frank DiMeo/University Photography



Fans of hot, spicy cuisine can thank nasty bacteria and other food-borne pathogens for the recipes that come -- not so coincidentally -- from countries with hot climates. Humans use of antimicrobial spices developed in parallel with food-spoilage microorganisms, Cornell biologists have demonstrated in a international survey of spice use in cooking. The same chemical compounds that protect the spiciest spice plants from their natural enemies are at work today in foods from parts of the world where -- before refrigeration -- food-spoilage microbes were an even more serious threat to human health and survival than they are today, Jennifer Billing and Paul W. Sherman report in the March 1998 issue of the journal *Quarterly Review of Biology*.

"The proximate reason for spice use obviously is to enhance food palatability," said Sherman, an evolutionary biologist and professor of neurobiology and behavior at Cornell. "But why do spices taste good? Traits that are beneficial are transmitted both culturally and genetically, and that includes taste receptors in our mouths and our taste for certain flavors. People who enjoyed food with antibacterial spices probably were healthier, especially in hot climates. They lived longer and left more offspring. And they taught their offspring and others: 'This is how to cook a mastodon.' We believe the ultimate reason for using spices is to kill food-borne bacteria and fungi."

Sherman credits Billing, a Cornell undergraduate student of biology at the time of the research, with compiling many of the data required to make the microbe-spice connection: More than 4,570 recipes from 93 cookbooks representing traditional, meat-based cuisines of 36 countries; the temperature and precipitation levels of each country; the horticultural ranges of 43 spice plants; and the antibacterial properties of each spice.

Garlic, onion, allspice and oregano, for example, were found to be the best all-around bacteria killers (they kill everything),

followed by thyme, cinnamon, tarragon and cumin (any of which kill up to 80 percent of bacteria). Capsicums, including chilies and other hot peppers, are in the middle of the antimicrobial pack (killing or inhibiting up to 75 percent of bacteria), while pepper of the white or black variety inhibits 25 percent of bacteria, as do ginger, anise seed, celery seed and the juices of lemons and limes.

The Cornell researchers reported in the article, "Countries with hotter climates used spices more frequently than countries with cooler climates. Indeed, in hot countries nearly every meat-based recipe calls for at least one spice, and most include many spices, especially the potent spices, whereas in cooler counties substantial fractions of dishes are prepared without spices, or with just a few." As a result, the estimated fraction of food-spoilage bacteria inhibited by the spices in each recipe is greater in hot than in cold climates.

Accordingly, countries like Thailand, the Philippines, India and Malaysia are at the top of the hot climate-hot food list, while Sweden, Finland and Norway are at the bottom. The United States and China are somewhere in the middle, although the Cornell researchers studied these two countries' cuisines by region and found significant latitude-related correlations. Which helps explain why crawfish etoufée is spicier than New England clam chowder.

The biologists did consider several alternative explanations for spice use and discounted all but one. The problem with the "eat-to-sweat" hypothesis -- that people in steamy places eat spicy food to cool down with perspiration -- is that not all spices make people sweat, Sherman said, "and there are better ways to cool down -- like moving into the shade." The idea that people use spices to disguise the taste of spoiled food, he said, "ignores the health dangers of ingesting spoiled food." And people probably aren't eating spices for their nutritive value, the biologist said, because the same macronutrients are available in similar amounts in common vegetables, which are eaten in much greater quantities.

However the micronutrient hypothesis -- that spices provide trace amounts of anti-oxidants or other chemicals to aid digestion -- could be true and still not exclude the antimicrobial explanation, Sherman said. However, this hypothesis does not explain why people in hot climates need more micro-nutrients, he added. The antimicrobial hypothesis does explain this.

The study of Darwinian gastronomy is a bit of a stretch for an evolutionary biologist like Sherman, who normally focuses his research on the role of natural selection in animal social behavior and is best known for his studies of one of nature's most social (and unusual-looking) creatures, the naked mole-rat (*Heterocephalus glaber*) of Africa. But eating is definitely one of the more social behaviors of *Homo sapiens*, he maintains, and it's a good way to see the interaction between cultural evolution and biological function. "I believe that recipes are a record of the history of the coevolutionary race between us and our parasites. The microbes are competing with us for the same food," Sherman said. "Everything we do with food -- drying, cooking, smoking, salting or adding spices -- is an attempt to keep from being poisoned by our microscopic competitors. They're constantly mutating and evolving to stay ahead of us. One way we reduce food-borne illnesses is to add another spice to the

From the Garlic Web....

recipe. Of course that makes the food taste different, and the people who learn to like the new taste are healthier for it."

For biology student Billing, the spice research for a senior honors thesis took her to an unfamiliar field, food science, and to Cornell's School of Hotel Administration, where the library contains one of the world's largest collections of cookbooks. Now that the bacteria-spice connection is revealed, librarians everywhere may want to cross-index cookbooks under "food safety." And spice racks may start appearing in pharmacies.

Nature, not nurture, decides whether we like garlic

By staff reporter, NUTRA USA --10/24/2007-

A new study has presented strong evidence that food preferences are largely governed by hereditary rather than social and environmental factors, especially when it comes to a taste for garlic, coffee and fruit and veg.

"For so long we have presumed that our up-bringing and social environment determine what we like to eat," said Professor Tim Spector of King's College, London, lead researcher on the cohort study published in *Twin Research and Human Genetics* this month.

"This has blown that out of the water. More often than not our genetic make-up influences our dietary patterns."

The researchers looked into the eating habits of 3262 female twins in the UK aged between 18 and 79 years.

They asked the women to complete food frequency questionnaires, so as to determine their dietary patterns. The result was the identification of five distinct dietary patterns: fruit and vegetable, high alcohol, traditional English, dieting, and low meat.

These patterns were seen to be similar to those in singleton Western populations, and were related to factors like body mass index, smoking status, physical activity and deprivation.

The researchers found that all five of the patterns were heritable, with estimates ranging from 41 to 48 per cent.

The strongest hereditary components were seen for fruit and vegetables (49 per cent), garlic (46 per cent), coffee (41 per cent) and red meat (39 per cent).

In light of these findings, the researchers concluded: *"The relatively high heritability of specific dietary components implicates taste perception as a possible target for future genetic studies."*

Subject to these, the findings could have a bearing on determining cause of illness, especially in cases where there is a strong link between diet and disease (such as high intake of saturated fat and heart disease).

It is also thought that this direction of research could prove useful when it comes to future government strategies on dietary advice, the influence of hereditary tastes could well have a bearing on success rates.

For instance, if a diet is less about choice and more about genetics, campaigns like the UK's 'five a day' for fruit and vegetables could have less of an effect than expected.

Source

Twin Research and Human Genetics, Oct;10(5):734-48, *"Dietary Patterns and Heritability of Food Choice in a UK Female Twin Cohort"*

Authors: Teucher B, Skinner J, Skidmore PM, Cassidy A, Fairweather-Tait SI, Hooper L, Roe MA, Foxall R, Oyston SL, Cherkas LF, Perks UC, Spector TD, Macgregor AJ.

Garlic casts spell on garden bugs

"Stinking rose" smells sweet to researcher seeking a natural pesticide
By BRIAN NEARING, *Times Union.com* – April 10, 2008

ALBANY-- Garlic won't lower your cholesterol or ward off mythical vampires. But someday, it may be an environmentally friendly way to keep bugs out of the garden.

In a crowded lab on the University at Albany campus, researcher Eric Block has been delving into garlic's mysteries for three decades. He's such a fan that his car license plate reads ALLIUM -- the scientific name for the plant family that includes garlic and onions.

Now, Block is on the trail of a natural pesticide from the so-called "stinking rose," the left-handed compliment long used to describe garlic's pungent appeal.

For the last four years, several experimental carrot beds in England have been strewn with garlic-oil-infused wood pellets developed by a British company, ECOspray, which is working with Block as a consultant.

The pellets contain sulphur compounds of garlic related to allicin, which garlic releases as a natural defense when disturbed -- like when a hungry worm starts eating a bulb.

Block believes this "chemical warfare" can be used to protect a variety of root vegetables and reduce the need for chemical pesticides, which can accumulate in the environment, unintentionally poison other animals and get into the food chain.

Alliin is not present in garlic in its natural state. But when garlic is chopped or otherwise damaged, the enzyme alliinase on a chemical called aliin, with this reaction creating allicin.

Alliin's pungent sulfur compounds give off a strong odor, delicious to some. But to insect pests, it is repugnant and sometimes toxic. Microscopic worms called nematodes that love to eat root vegetables "hate garlic," Block said.

But not to worry: vegetables in ground that has been treated with the pellets don't take on the flavor of garlic.

So far, test results of the product, tentatively named NEMguard, have been encouraging, with protection lasting a month or longer. "We are looking for approval first in the European Union, and then in the U.S.," Block said, so it could be several years before the product might be available at the local garden-supply store.

Block's garlic-related research has attracted more than \$5.5 million in grants over the years-- he just reached his 30th consecutive year of funding -- from such diverse sources as the American Heart Association, NATO and the John Simon Guggenheim Foundation.

The pesticide research is not the only garlic-related project Block has in the works.

Next year, he is releasing a book on the history, chemistry and folklore of his favorite plant, titled "Garlic and Other Alliums: The Lore and the Science," to be published by the Royal Society of Chemistry in the United Kingdom.

Early farmers first noticed garlic could help fight garden pests. In a process called "intercropping," rows of garlic and roses would be alternated, and pests discouraged. Arid ancient Egyptians used garlic as part of the embalming process for the dead.

"It may have been as a preservative or a repellent. Or it may have been for the soul in the afterlife," Block said. "It is hard to trace it back to the origins."

Influence of Planting Time on the Development, Yield and Quality of Garlic (*Allium sativum*.L) in Estonia

By P. Põldma, A. Merivee, A. Pae, K. Justus, ISHS Acta Horticulturae 688: IV International Symposium on Edible Alliaceae

Abstract: The aim of the present research was to study the influence of different planting times in autumn and spring on the plant growth, yield and bulb quality of garlic. Experiments were carried out with local winter garlic clone in the experimental garden of Estonian Agricultural University in town Tartu, southern part of Estonia (58°21'N and 26°41'E) in 2000-2002. Six planting times with an interval of 10 days were used in autumn (from September to November) and two planting variants in spring. The average diurnal temperature remains below 0°C from the 15th of November in Estonia. The planting times in autumn were calculated as 50, 40, 30, 20, 10 and 1 day before the above mentioned date. Seed cloves planted in spring were previously cold treated at $4.0 \pm 1^\circ\text{C}$ before planting for 30 and 50 days in 2001, and 15 and 30 days in 2002. The winter damage of cloves, plant growth characteristics (number of leaves, plant height and diameter of plant stem), yield and yield quality were measured. The yield of garlic bulbs varied between 0.43-1.46 kg m⁻¹. Results of the research showed that the highest yield of garlic was obtained when planting time 1-1.5 months before diurnal temperature remained constantly below 0°C was used. Late planting times in autumn had the highest winter damage. Garlic planted in spring had lower yield and 16% of bulbs produced only one round clove. None of the experimental factors had an impact on the plant height and diameter of plant stem.

FAMU Professor has new Evidence that Garlic is the Anti-Cancer Weapon

—Tallahassee, FL.

Ronald D. Thomas, associate professor in the Florida A&M University (FAMU) College of Pharmacy and Pharmaceutical Sciences, (COPPS) has new evidence that garlic could play a significant role in the prevention of cancer and many cancer prevention research scientists agree that one of the keys to unlocking the door of cancer prevention is eating more vegetables.

For many years, scientists have been accumulating evidence that what we eat and how it is prepared has a lot to do with preventing or causing cancer, especially garlic. Thomas, an environmental toxicologist, suggested that studies have shown that a chemical that helps give garlic its flavor can keep PhIP from triggering DNA damage or the formation of carcinogens in the body. Thomas further suggests that the garlic flavor component, called DAS, triggers a gene alteration in PhIP that might play a significant role in preventing breast and other types of cancer.

“People should include garlic with their daily meals or take a garlic supplement if they can’t take it in their meals,” said Thomas. “Additionally, eat less meat and more fruits and vegetables.”

“The research that our faculty are involved in seek to find cures for the many disease facing society and improve the quality of life for patients everywhere,” said Henry Lewis III, dean and professor of FAMU’s COPPS.

Abundant Evidence to Warn People Against GE Crops

By Jeffrey M. Smith, Environmental News Network 11/30/07

Announcements in Victoria and NSW that genetically engineered (GE) crops will be allowed threaten more than just the income of Australia’s farmers and food companies. There is irrefutable evidence that GE foods are unsafe to eat.

Working with more than 30 scientists worldwide, I documented 65 health risks of GE foods. There are thousands of toxic or allergic-type reactions in humans, thousands of sick, sterile, and dead livestock, and damage to virtually every organ and system studied in lab animals. Government safety assessments, including those of Food Standards Australia New Zealand (FSANZ), do not identify many of the dangers, and analysis reveals that industry studies submitted to FSANZ are designed to avoid finding them.

The process of inserting a foreign gene into a plant cell and cloning that cell into a GE crop produces hundreds of thousands of mutations throughout the DNA. Natural plant genes may be deleted or permanently turned on or off, and hundreds can change their function. This is why GE soy has less protein, an unexpected new allergen and up to seven times higher levels of a known soy allergen.

The only human feeding study conducted on GE foods found genes had transferred into the DNA of gut bacteria and remained functional. This means that long after we stop eating a GE food, its protein may be produced continuously inside our intestines.

Lab animals fed GM crops had altered sperm cells and embryos, a five-fold increase in infant mortality, smaller brains, and a host of other problems.

Documents made public by a lawsuit revealed that scientists at the US Food and Drug Administration warned that gene-spliced foods might lead to allergies, toxins, new diseases and nutritional problems. When 25 per cent of US corn farmers planted GE varieties, corn sales to the European Union dropped by 99.4 per cent. All corn farmers suffered as prices fell by 13 to 20 per cent. In North America a growing number of doctors are prescribing a non-GE diet. Next year, the US natural food industry will remove all remaining GE ingredients.

Consumer buying pressure will likely force the entire food chain in North America to swear off GE within the next two years. Such a tipping point was achieved in Europe in April 1999. Australia should be taking notice of the response to GE foods throughout the world. It is certainly not the time to let the state bans expire.

From the Garlic Web....

“Garlic May Ward Off Heart Woes,” Study Finds

By Ed Edelson, HealthDay News, 10/16/07

Garlic lovers, take heart: The pungent root may promote healthier responses in blood vessels.

So say researchers who found that compounds in garlic cause tissues or blood vessels to release a chemical called hydrogen sulfide. In large quantities, this compound can be deadly, but it's also an essential molecule within the body, causing blood vessels to relax and reducing dangerous inflammation.

But how you take your garlic matters, the research showed. “If you prepare it in certain ways, you can lose the compounds that cause it to release hydrogen sulfide, so that helps explain why there has been such great variability in studies,” noted senior researcher David Kraus, an associate professor of environmental health sciences at the University of Alabama, Birmingham.

His team published its findings in this week's online edition of the *Proceedings of the National Academy of Sciences*.

In the array of garlic health studies, more than half have shown some positive effect, but that effect has tended to be small, and some trials have even shown negative health effects, Kraus noted. Some of his team's experiments used juice extracted from supermarket garlic. Human red blood cells exposed to tiny amounts of the juice began emitting hydrogen sulfide. Most hydrogen sulfide production took place at the membrane of the red blood cells, although a fraction was made within the cells.

When working with garlic, Kraus first crushes the clove. He then waits for the reaction that produces the compounds that trigger hydrogen sulfide release. “We usually let the garlic crush for 15 minutes,” he said.

Other studies of garlic's health effects have failed, Kraus said, because they look for activity that is impossible -- a reduction in blood cholesterol levels, for example. One such trial was done by Christopher D. Gardner, a nutrition scientist and assistant professor at Stanford University's Prevention Research Center in California.

“We used real raw garlic and two commercial supplements in doses higher than people are advised to take,” Gardner noted. “We assumed that at least one of the three would work. These were people whose LDL [‘bad’] cholesterol was elevated. We worked with 192 people for six months, and they [LDL cholesterol levels] didn't budge, not even a bit, month after month.”

According to Gardner, Kraus' work now offers a reason for that failure, because hydrogen sulfide has no effect on cholesterol.

Another expert urged caution in interpreting the Birmingham team's results.

Eric Block, professor of chemistry at the State University of New York, Albany, has also done extensive work on garlic. He called the paper “provocative” but expressed some concerns.

For example, he said, “the benefits of garlic on cardiovascular disease remain controversial, because they have not been established by the gold standard method of placebo-controlled, double-blind clinical studies,” he said.

It's also uncertain that garlic's purported beneficial effects are due to the mechanism described in the new report, Block added. Clinical trials are needed to help prove that point, he said.

According to Block, Kraus' team, “should be more conservative in over-extending some of their conclusions in the

absence of additional work.” However, “their work does represent a significant advance in the science of this amazing, ancient, ever-popular herb,” he said.

Kraus stressed that his study only looked at the effect of fresh garlic, not garlic supplements. “What we are proposing is that you eat a garlic-rich diet,” he said. “We haven't really tried to look at supplements yet.”

“Garlic-rich” has different meanings, depending on the part of the world being studied, Kraus added. “In the Middle East, that would be 5 to 10 cloves of garlic a day,” he said. “If you go to the Far East, it would be even higher.”

New Studies Reveal How Crushed Garlic Is Good For The Heart

by Katherine East (NewsTarget)

Ever wondered what gives you the bad breath after eating garlic? Well it's a substance called Allicin and when digested, it causes blood cells to release sulphur compounds and these produce tainted breath and for some people even a foul body odor. The good news is that the pungent smelling bulb is now revealing answers to researchers and they are beginning to understand why garlic has so many health benefits and why some consider it to be a super food.

Garlic has long been renowned for its healing properties and was even worshiped in ancient times. Numerous studies have been done on it's reported cures and remedies for various ailments. Claims that it can cure all from yeast infections to athlete's foot, lower cholesterol and ward off a cold have been around for centuries. Studies have shown varying results.

Now, recently published research suggests that garlic can actually relax arteries and thereby increase blood flow, reduce blood clots and prevent oxidative damage. This is good news for heart health.

Clinical tests at the University of Alabama at Birmingham, showed that blood vessels exposed to crushed garlic juice showed tension within the vessels reducing by 72%. The reaction takes place in the cells of the blood vessel lining and causes them to dilate.

A laboratory study published this month in the journal *Proceedings of the National Academy of Sciences* showed that red blood cells exposed to garlic juice begin emitting hydrogen sulphides, a biological messenger that stimulates vessels to open.

This reaction reduces blood pressure and in doing so increases the oxygen going to various parts of the body especially important for vital organs while reducing the pressure on the heart. These results added to findings earlier this year by researchers from the Albert Einstein College of Medicine, that hydrogen sulphide actually prevented heart muscle damage in the event of a heart attack.

At high concentrations, hydrogen sulphide is actually poisonous but our body produces it's own supply. However as age advances, Hydrogen Sulphide production dwindles.

Dr David Kraus, Ph.D., a UAB associate professor in the Departments of Environmental Health Sciences and Biology and the study's lead author said, “Our results suggest garlic in the diet is a very good thing. Certainly, in areas where garlic consumption is high, such as the Mediterranean and the Far East, there is a low incidence of cardiovascular disease. It is, however, important to know that large amounts in supplement form may interact with

blood thinning drugs and could increase the risk of bleeding.”

The fresh garlic used in the study was the equivalent of eating two cloves of garlic, possibly more than most people unless you live in the Mediterranean and the Far East where it is used extensively in cooking.

Dr. Kraus suggested that before cooking with fresh garlic, let it stand for 15 minutes after crushing as this triggers the enzyme to boost the healthy components of the garlic and so increase the health benefits.

Future studies will help to determine how much of the sulphide compounds are needed for effectiveness in garlic supplements or eating raw garlic for health benefits.

About the author

Katherine Oosthuis manages and writes for a health and nutrition website Detox For Life . Her passion is to make research available to those who are looking to improve their well-being and revolutionise their health through better nutrition and alternative medicines.

Govt must sort garlic industry triple-whammy

27 August 2007, Press Release: Green Party, New Zealand

Government must sort garlic industry triple-whammy. The Green Party is calling on Biosecurity and Agriculture Minister Jim Anderton to step in and save New Zealand's garlic industry from disaster.

“The industry has been served a triple-whammy by this Government. It has been hit hard by the import of container

loads of cheap Chinese garlic, while at the same time prevented from importing new seed by onerous biosecurity rules,” Safe Food Spokesperson Sue Kedgley says.

“The industry has been further damaged by the threat of contamination from a garlic virus from the imported variety.

“The Greens warned MAF four years ago that people were planting the imported garlic all around the country, but officials have turned a blind eye to it,” Ms Kedgley says.

“The high standards for importing garlic seed have meant that growers haven't been able to get any seed into the country for more than four years. If the garlic growers can't get their seed in within the next few months, the future of the garlic industry in New Zealand will be at risk.

“It takes time to build up new stock, and New Zealanders are clamouring for New Zealand garlic, but there is very little available, because of this inability to bring in new seed.

“Also of huge concern is the fact that New Zealand officials have never even travelled to China to check how garlic is grown and processed there. They haven't been to check that the garlic is grown in areas that are free from certain pests, even though this is a key to its biosecurity status.

“It's mystifying why they would be so lax on imported garlic, and yet are so stringent on the seed from Argentina that growers need to build up the New Zealand garlic industry.

“There seems to be a complete double standard at work here, and the effect of it is to put our garlic industry at risk. I am calling on Mr Anderton to intervene and sort the situation out,” Ms Kedgley says.

Buffet worker stomps garlic with boots

AP — Sep. 12/07

Stomping on garlic with your shoes on is apparently not the correct way to prepare food. The Rockland County health department hit the Great China Buffet restaurant with two violations after someone took pictures of an employee stomping a bowl of garlic with his boots in an alley. The man alerted health inspectors.

“I go back there and the guy's stepping on garlic,” said Dan Barreto, who used to eat at the restaurant. “There he is jumping up and down on it, smashing it up, having a good time.”

“The health department does not consider a person's shoe or boot a proper instrument to use in food preparation,” health sanitarian John Stoughton said Tuesday. “It was a novel way to prepare food,” he acknowledged.

Great China Buffet owner Jiang Shu said the worker has been fired over the incident

The health department said it would inspect the restaurant again.

Don't put garlic in microwave

DESERET Morning News, November28, 2007

If you eat garlic as part of a healthy diet, better skip the microwave.

Federal scientists studying the effects of cooking on the heart-healthy compounds in garlic say microwaving it stripped garlic almost entirely of its good-for-you attributes.

Like onions, garlic contains thiosulfates, which researchers say may help lower cholesterol and thin the blood. Scientists have assumed eating garlic raw was the best way to get those properties.

But U.S. Department of Agriculture researchers now say crushed and lightly cooked garlic provides most of the same benefits of eating it raw. The exception was garlic cooked in a microwave.



Mid Wales Garlic “may cut cow flatulence”

BBC NEWS – 10/7/07

Scientists in Wales tackling the impact flatulent cows and sheep have on global warming may have an answer - putting garlic in their food. Experts claim cows are responsible for about 3% of Britain's greenhouse gases.

But initial results from the start of the three-year study show that feed containing garlic could cut the amount of gas produced by up to 50%. The Aberystwyth research team is testing if this taints milk or meat - and gives the animals bad breath.

The study is being led by scientists at the University of Wales, Aberystwyth, alongside colleagues at Bangor and Reading universities.

In Aberystwyth, researchers are measuring the amount of methane and nitrogen produced by sheep by housing them in a plastic portable tent.

Project leader Professor Jamie Newbold said new types of feed from plant extracts, and grass with a higher sugar content, were being developed to help solve the problem.

Initial results show that extracts of garlic compound could reduce the amount of methane produced by the animals by 50%, he said.

“Garlic directly attacks the organisms in the gut that produce methane.”

He added that tests were also being carried out to see if the garlic gave the animals bad breath and more specifically if it could taint milk or meat. But he joked that this might be “good for the French market.”

Experts consider cows the biggest single source of methane - a gas 23 times more potent than carbon dioxide when it comes to global warming.

The average dairy cow is capable of producing up to 500 litres of the gas every day, mostly through belching. Reduce that, claim the experts, and farming could not only be made greener and more efficient, but it could also help Britain achieve its commitments under the Kyoto agreement.

A spokeswoman for the Department for Food, the Environment and Rural Affairs (Defra) said recent research suggested that “substantial methane reductions” could be achieved by changes to animals' feed.

Prof. Newbold explained that cattle and sheep were responsible for about 30% of methane emissions in the UK. In Wales, they produced nearly double that—which amounts to 30% of Wales's greenhouse gases.

He said the work commissioned by Defra, worth some £50,000, had unified a number of schemes looking into flatulent animals.

The project also involves Aberystwyth's Institute of Grassland and Environmental Research and environmental specialists Adas.

Corrupt Bastards Force Feed Cows Garlic

By Cal Jennings, CCN (Crazy Cal News) - UK, 7/11/07

When the Corrupt Bastards Club found out about cows producing enough methane to create 3% of Britain's greenhouse gases, VECO called in Lord Browne to investigate. Fearing that they might lose a percentage of the market to cows, they had their mad scientists search a way to reduce the amount of gas that cows can produce.

While the scientists worked on the problem, Lord Browne paid some cohorts to introduce a bill limiting the amount of gas that cattle can produce. This proving ineffective in reducing the cows' production, a new method created by one of the scientists was field tested.

In the field test, the cattle were force-fed cloves of garlic. It is thought that the garlic reduces the amount of gas produced by 50%.

“Those cows thought they were going to muscle in on us for a piece of the pie,” said Lord Browne. “Well, we showed them, didn't we?”

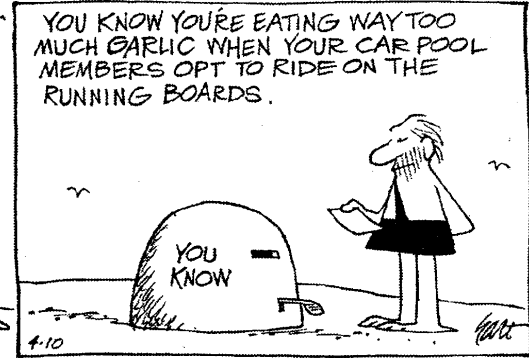
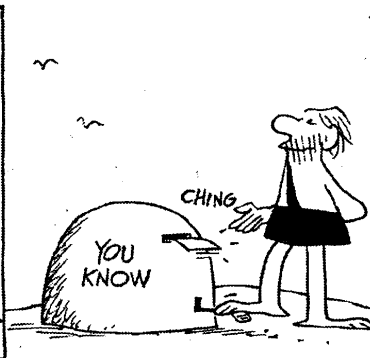
When asked if this would cause a problem with the flavor of the meat or milk, Lord Browne announced, “We shall buy the cattle and sell their meat for twice the price. They don't need to be seasoned with garlic, now, do they? This will add to our profits and let us keep a close eye on those sneaky cattle at the same time.”



Cow tagged for excess gas production

The story above is a satire or parody. It is entirely fictitious.

B.C.



TIPS ON COOKING WITH GARLIC

by Ted Jordan Meredith, author of
The Complete Book of Garlic (Timber Press, 2008)

Peeling garlic cloves can seem like an onerous chore, particularly if you develop a taste for a greater quantity of garlic in your culinary preparations. Nonetheless, a certain rhythm and efficiency is soon acquired, and the task becomes quick and automatic.

1. **PINCH.** If you have a relatively easy peeling clove, and if your fingers are fairly strong, you can simply pinch the clove between your finger and thumb, positioning either your finger or thumb along one of the edges of the edges of the clove. This causes the skin to buckle and crack and pull away from the flesh. You can then use your thumbnail to pull away the root end or tip end of the clove and gain a purchase on the skin to begin separating it from the flesh.

2. **WHACK.** A standard and more effective variation on the theme calls for placing a clove on a cutting board or other similar surface, laying the flat of a chef's knife on top of the clove, then lightly whacking the flat of the knife with your fist or the palm of your hand. This easily buckles and cracks the clove skin and separates it from the flesh. At this point, it is easy to gain a purchase on the skin and peel it away. This is the method I most frequently use and recommend.

3. **SMASH.** Instead of lightly whacking the flat of a knife blade to crack the clove skin, you can give it a good slam to smash the clove flat. Crushing the clove immediately and thoroughly brings the enzyme alliinase together with alliin to form allicin and other volatile compounds, releasing the garlic's tumult of complex aromatic flavors. At this point, the flesh can be stripped off the skin and further minced or crushed. Depending on the particular cultivar, its age, and the stickiness of flesh to skin, the skin can be removed and discarded with varying degrees of effort. I generally prefer buckling the skin and removing it prior to smashing.

4. **CRUSH.** Crushing garlic releases all of the garlic's aromatic pungency. It also allows the garlic to be distributed thoroughly and evenly with other food. Crushing garlic generates the volatile aromatic flavor elements, and cooking it in oil enhances its character and helps distribute its flavors for the culinary preparation. It also is ideal for mixing with a dressing for fresh lettuce or greens. One can fully smash a clove with the flat of a chef's knife, and then quickly mince the smashed flesh with the knife's cutting edge. I almost always peel garlic before crushing it. If salt is part of the preparation, it can be an ally in further crushing the garlic. Put the crushed garlic in a small bowl. Add salt, and use the back of a spoon to crush the garlic by using the salt as miniature grinding particles. This method extracts the juices as well as grinds and quickly produces a garlic slurry.

5. **PRESS.** In the marketplace, one can find various tools and gimmicks for peeling garlic. I do not have much use for them. Once simple techniques are mastered, there is little need to complicate the process under the guise of simplifying it. On the other hand, I frequently use a garlic press if I want crushed garlic rather than minced garlic. Garlic press manufacturers usually emphasize that no peeling is necessary. Although this may be true, some waste is inevitable, and there is often more mess. If you decide to use a

garlic press, get a good one. A garlic press should be well made so that it can withstand extended use. The plunger should fit with little gap on the sides and fully extend into the chamber, so that the garlic does not escape up the sides and is thoroughly forced through the holes, leaving little wasteful residue at the bottom of the chamber. The chamber should have many small holes so that the garlic is thoroughly crushed, but the press also needs to be compatible with your hand strength. More strength is required to force garlic through tiny holes, but better handle designs provide greater leverage and easier gripping. The press should also be easy to clean. Some form of plastic device with protuberances that match the holes in the chamber to push out the remaining residue usually fills this role.

6. **CHOP AND MINCE.** Chopping and mincing are alternatives to crushing. Chopped garlic is coarser and in larger bits. Minced garlic is simply garlic that has been chopped to smaller bits. Mincing creates more of the aromatic sulfur compounds and is more flavorful in this regard, but a toothy bite of more coarsely chopped garlic is good as well. Cooked in oil to a straw or light tan color, chopped or minced garlic takes on a wonderfully rich, sweet, nutty character. Chop or mince garlic as you would other foods. No specialized technique is required. Use a good chef's knife, or Asian equivalent, for the purpose. An 8 in. (200 mm) chef's knife is a good all around size for the kitchen, and with a bit of practice, one can make quick work of slicing, chopping, or mincing. One sometimes sees kitchen cooks using small knives for such chores---and indeed, with small cutlery, they do become chores. Paring knives are for paring. Chef's knives are for chopping and mincing (and many other tasks as well).

7. **WHOLE.** Roasted garlic is essentially cooked whole, without chopping or crushing. It has a mild, sweet, caramelized taste that has broad appeal. The flavor is simpler, and very much different than if the garlic had been chopped or crushed prior to cooking. Roasted garlic is a tasty spread on crusty bread or toast and is even good in mashed potatoes. There are various methods of roasting garlic. Here are a few. Remove the outer skins from a head of garlic, slice off the top of the head so that the clove tips are exposed. Drizzle the exposed tips with oil, cover in foil and roast at 350°F for about an hour. As a variation, add about of tablespoon of water as well as the oil. In the last 15 minutes of cooking, uncover the garlic and baste with the juices. The heat and cooking time required will vary depending on the size of the heads and your preferences. Dry roasting individual cloves in a fry pan is another approach that yields garlic that is more toasty and toothy and less caramelized and pasty. Place unpeeled cloves in a skillet and toss and turn periodically for about 8 to 12 minutes until the cloves skins have browned. Vary the time and browning according to the size of the cloves and your preference.



GARLIC RECIPES

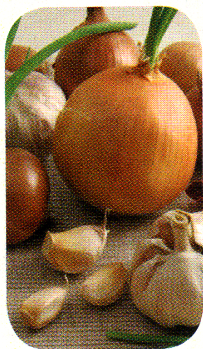
by Ted Jordan Meredith, author of
The Complete Book of Garlic (Timber Press, 2008)

Pasta with Garlic, Ham, and Summer Squash

4 to 6 small to medium zucchini or other summer squash.
2 to 4 ounces of quality ham
4 tablespoons extra virgin olive oil
1 medium head of minced garlic
4 to 6 ounces orecchiette pasta
1/3 to 1/2 cup grated Parmesan cheese
salt and pepper

Slice the zucchini lengthwise into halves or quarters, depending on the size of the squash, then cut crosswise into pieces about 1/4 in. thick. Slice the ham thinly, then cut lengthwise, and then crosswise, forming roughly dime-sized pieces. Begin heating the pasta water and cook pasta until al dente. Sauté the ham in the olive oil until it begins to brown. Add minced garlic to the pan and sauté until straw to light tan color. Add the zucchini, sprinkle with salt, and toss. Sauté on high heat so that the zucchini will lose its moisture and begin to brown. Moderate the heat as necessary to keep the garlic from burning as the zucchini lightly browns. When the zucchini is lightly browned, and tender but not mushy, add the cooked pasta and toss. Next, add half the Parmesan and toss again. Plate and top with the remaining Parmesan.

The ham is primarily for flavor, so a high quality dry ham is preferable, and less will be required for the desired flavor effect. The water added sponges that sometimes pass for ham in the supermarket can be used if none other is available, but more will be required and the overall result will not be quite as good. Many other pasta shapes will also work, though spaghetti and



More Garlic and Onions, Please

People who eat more onions and garlic may be at lower risk for a number of cancers. Italian and Swiss researchers looking at the diets of 10,000 cancer patients and 15,000 healthy subjects found the following reduced rates of cancer for those who ate the most garlic or onions compared to those who ate neither.

Cancer	Garlic	Onion
Oral cavity and pharynx	84 percent	39 percent
Esophageal	88 percent	57 percent
Colorectal	56 percent	26 percent
Laryngeal	83 percent	44 percent
Breast	25 percent	10 percent
Ovarian	73 percent	22 percent
Prostate	71 percent	19 percent
Kidney	38 percent	31 percent

its linear relatives do not lend themselves to uniform distribution with the zucchini mixture. Romano, Myzythra, and Asiago are other good cheese alternatives. Summer squash is in its prime about the time the Rocambole garlics are in their prime, and this has become a favorite dish that features both.

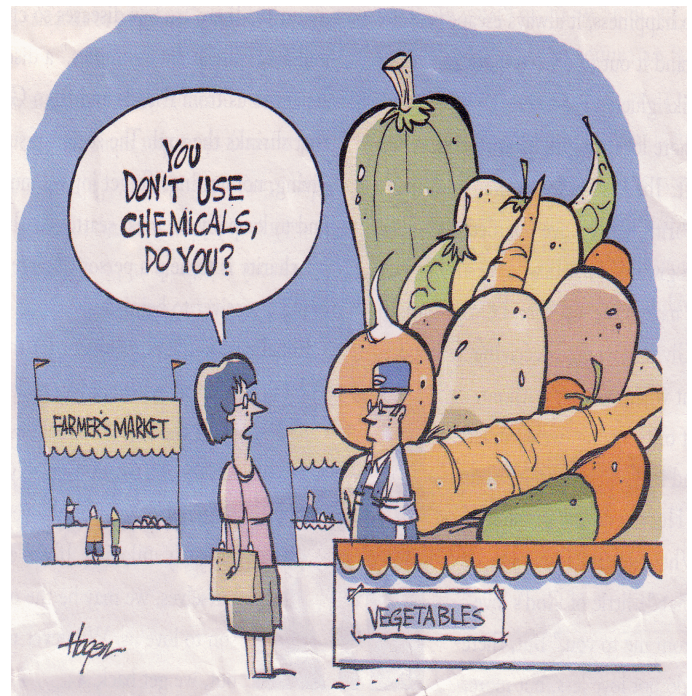
Garlic Dressing

1/8 teaspoon salt
1 medium clove or more of garlic
4 tablespoons extra virgin olive oil
black pepper
1 tablespoon red wine or balsamic vinegar

Peel the garlic and mince finely or crush through a garlic press into a small bowl. Add the salt and press into the garlic with the back of a spoon until the garlic forms a paste. Add freshly ground black pepper and vinegar, then whisk. Add the olive oil and whisk again to blend. Pour over salad greens and toss.

Vary the amount of garlic, salt, and vinegar according to taste. Add herbs with the vinegar as desired. For a dressing for cooked vegetables, reduce the amount of vinegar by half or so. The dressing works well with cooked broccoli, Brussels sprouts, most greens, and various other vegetables.

This calls for a garlic that is richly flavored but mild in heat. Rocamboles are ideal. After they have passed their prime, Purple Stripes are excellent substitutes. After Purple Stripes have passed their prime, Ajo Rojo and some of the "sweeter" Creoles are good choices.



Tools for healthier lives

Recipes from Mayo Clinic

Vegetable and garlic calzone

Dietitian's tip: Instead of high-fat meats, this calzone is stuffed with fresh vegetables, which reduces the amount of fat and calories and provides 3 servings of vegetables.

SERVES 2

Ingredients

3 asparagus stalks, cut into 1-inch pieces
1/2 cup chopped spinach
1/2 cup chopped broccoli
1/2 cup sliced mushrooms
2 tablespoons garlic, minced
2 teaspoons olive oil
1/2 pound frozen whole-wheat bread dough loaf, thawed
1 medium tomato, sliced
1/2 cup mozzarella cheese, shredded
2/3 cup pizza sauce

Directions

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

In a medium bowl, add the asparagus, spinach, broccoli, mushrooms and garlic. Drizzle 1 teaspoon of the olive oil over the vegetables and toss to mix well.

Heat a large nonstick frying pan over medium-high heat. Add the vegetables and saute for 4 to 5 minutes, stirring frequently. Remove from heat and set aside to cool.

On a floured surface, cut the bread dough in half. Press each half into a circle. Using a rolling pin, roll the dough into an oval. On half of the oval, add 1/2 of the sauteed vegetables, tomato slices and 1/4 cup cheese. Wet your finger and rub the edge of the dough that has the filling on it. Fold the dough over the filling, pressing the edges together. Roll the edges and then press them down with a fork. Place the calzone on the prepared baking sheet. Repeat to make the other calzone.

Brush the calzones with the remaining 1 teaspoon olive oil. Bake until golden brown, about 20 minutes.

Heat the pizza sauce in the microwave or on the stove top. Place each calzone on a plate. Serve with 1/3 cup pizza sauce on the side or pour the sauce over the calzones.

Nutritional Analysis (per serving)

Serving size: 1 calzone

Calories 477

Protein 24g

Carbohydrate 68 g

Total fat 15g

Saturated fat 4 g

Monounsaturated fat 5 g

Cholesterol 15 mg

Sodium 1,071mg

Fiber 8 g

Potassium 409mg

Calcium 238 mg

From The Take-Out Menu Cookbook: How to Cook IN

by Meredith Deeds and Carla Snyder (Running Press).

Lentil Soup With Garlic and Cumin

Serves 6

Ingredients

2 tablespoons olive oil
1 large onion, finely chopped
2 garlic cloves, finely chopped
1 teaspoon cumin
1 3/4 cups dried lentils
8 cups chicken stock
1 teaspoon salt
Freshly ground black pepper
2 tablespoons lemon juice
Extra-virgin olive oil, for drizzling

Directions

1. In a large pot set over medium heat, heat the olive oil. Add the onion and garlic and cook for 6 minutes, until the onions become translucent. Add the cumin and continue to cook for another minute. Add the lentils, stock, salt and pepper, and simmer for 30 minutes, or until the lentils have broken down. Add water if the soup needs thinning. Stir in the lemon juice, taste, and re-season if necessary.

2. Ladle into soup bowls and drizzle with olive oil to serve.

Tip: There are many varieties of lentils: red, green, yellow, black. Although green is the easiest to find, any variety will work well in this soup.

This Mediterranean-inspired lentil soup is one of dozens of delicious The Take-Out Menu Cookbook, a collection of your favorite take-out home chef. It includes all kinds of cuisine: Italian, Chinese, Mexican, Greek and more. Serve this with a fresh salad and a crusty bread for recipes you'll find in dishes remade for the Japanese, Thai, a complete meal.

This soup can be made up to two days ahead and kept covered in the refrigerator.

Nutritional Analysis Per Serving

Calories 380

Saturated Fat 2 g

Sodium 850 mg

Sugars 9 g

Protein 24 g

Iron 35% DV

Total Fat 11 g

Cholesterol 10 mg

Total Carbohydrate 47 g

Dietary Fiber 18 g

Vitamin C 15% DV

Note: When the number of servings is listed as a range, the smaller portion is analyzed. Optional ingredients are not included in the analysis. Vitamin and mineral content is included when it is 10 percent or more of the Daily Value (DV).



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