

All about Garlic

Its history, how to plant, grow, and cure it.

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History

Among the oldest known horticultural crops



Indian Cultures and referred to garlic 5000 years ago

Clear historical evidence used by

- Babylonians 4,500 years ago
- Chinese 2,000 years ago

Grows wild only in Central Asia (Kryrgyzstan, Tajikistan, Turkmenistan + Uzbekistan)

History

- Softneck Garlic was predominant
- Evidence of hardneck found interred in Egyptian tombs
- Distinction between hardneck and softneck noted only once cultivation began in southern Europe, last 1,000 yrs
- Few varieties came with Polish, German and Italian immigrants over the centuries.



Health Benefits of Garlic

- sulfur compounds formed when a garlic clove is chopped, crushed or chewed. (Antifungal and antibacterial)
- allicin is an unstable compound that is only briefly present in fresh garlic after it's been cut or crushed (3).
- research also showed that allicin is responsible for
 - Lipid-lowering
 - anti-blood coagulation
 - Anti-hypertension
 - Anti-cancer
 - antioxidant and
 - anti-microbial effects



Helps help keep blood pressure under control

Helps prevent blood vessels from becoming blocked

Numerous therapeutic benefits

Helps prevent heart attack and atherosclerosis

12.9%

Vitamin B6

Blood cell and blood vessel protection from inflammatory and oxidative stress

15%

Manganese

7.4%

Vitamin C

Numerous beneficial cardiovascular effects

5.5%

Copper

Ability to lower blood pressure

3.2%

Calcium

Able to lower our blood triglycerides and total cholesterol

Anti-Inflammatory

HOW CAN YOU CONSUME GARLIC?

			
Season your favorite foods using raw garlic	Take capsules or health supplements that contain allicin	Consume it raw as a powerful natural medicine	Apply it directly to the skin as an antiseptic

DID YOU KNOW?

5,000 years ago in Ancient Egypt, slaves received a daily ration of garlic to improve their strength against illnesses.



Health Benefits of Garlic

Ancient civilizations used garlic to treat asthma, digestive disorders, heart disease, infections, respiratory disorders, tumors, and even intestinal worms.

Today, claims for the health benefits of garlic include

- lower blood pressure and cholesterol
- an anti-inflammatory effect
- a reduced risk of cancer
- and a stronger immune system.
- **Chop it for your health.** [Chopping](#), slicing, or smashing garlic triggers an enzyme reaction that increases its healthful compounds. Heat prevents this reaction, so let garlic sit on the cutting board for at least 10 minutes before cooking. (add at the end or cook at below 140F)

Source: <https://www.consumerreports.org/diet-nutrition/the-health-benefits-of-garlic/>

Even More Health Benefits of Garlic

Research highlights

The popularity of garlic in medicinal use continues today. One of the major reasons for such popularity is the large amount of scientific research conducted in the 20th Century that has confirmed much of the traditional uses of garlic.

- Cardiovascular disease: Atherosclerosis, post-heart attack therapy, post-stroke therapy, claudication
- Respiratory conditions: Cold, flu, bronchitis, asthma, pneumonia, tuberculosis
- Digestive disorders: Stomach ulcer, diarrhea, amoebic dysentery, worms, parasites
- Skin problems: Acne, boils, eczema, fungal infections, insect bites and stings

Source: <http://www.allicinfacts.com/garlic-studies/research-highlights/>

Types of Garlic

True Garlic belongs species is *Allium sativum*

Subspecies - Softneck + Hardneck

Softneck (sativum) Varieties include:

- Silverskin and artichoke types
 - blanco Piacenza Corsican red, Inchelium red, silver rose, silver white, French red
- can be planted using mechanical methods
- Predominant variety found in supermarkets
- Long shelf life + milder flavor
- Braid-able!



Types of Garlic

Hardneck (*Ophioscorodon* or *Ophios* for short)

- 10 Fairly distinct varietal groups; five
 - Porcelain
 - Purple Stripe (glazed/marbled)
 - Rocambole
- Hardneck garlic has a “scape” flower stalk
 - edible while young
 - will develop seed head if pollinated.



Types of Garlic-Benefits of Each

Softneck Varieties:

- Long Storage Life
- Mild flavor
- Decorative (Braiding)

Hardneck

- Multiple opportunities to harvest
 - Green Garlic (true also of softneck)
 - Garlic Scapes
 - Mature Garlic
- Good storage life
- Full flavor



Planting Garlic

When to plant:

Fall (Mid-October, End of November)

Not too early, not too late

How to plant:

Spacing 4-6 apart

Depth 2 inches deep

Pointed side up, flat side down

Where to plant:

Full Sun, Well drained rich Soil



How to Plant Garlic

Burpee Garlic Planting [Video](#)



Planting Garlic/Growing on

Maintenance

Keep weed free-best method is to mulch

- Leaves
- Straw (be careful)
- Plant into weed cloth (ensure it allows moisture through)

Mulch after soil has frozen to keep soil temperature consistent.



Planting Garlic/Growing on-What Happens When?

Late Fall - Time to plant garlic (Mid-October-Mid November)

Fall/Early winter - Garlic is setting its roots.

Early Winter/Late Winter-top growth (want as little of this as possible)

Late Winter/Early Spring-Temperature dependent additional growth

Early Spring/Late Spring-Plant resumes vigorous growth.

Late Spring/Early Summer-Harvest Green Garlic + Scapes

Around the end of June, pull up bulbs to see if they are forming normally.

July 4th or thereabouts-Harvest time for garlic

Issues to be concerned with-Soil Borne disease

White Rot -Source:[Suffolk Cornell Cooperative Extension](#)

- White rot is a worldwide problem in allium production, and has resurfaced in the **New York garlic industry (2016)** after a long period of eradication.
- can be **persistent** and devastating.
- **spread by seed and soil, it is also possible to prevent its spread into uninfested fields.**
- detected first as **yellowing or wilting of the foliage** just prior to scape emergence, though the infestation started much earlier.
- The above ground symptoms can correspond with underground symptoms including degradation of the roots and basal plate, formation of black sclerotia the size of poppy seeds, and briefly a white mycelial mat on the bulb extending up to the soil line.

White Rot of Garlic



Issues to be concerned with-Insect Disease

Source: [Suffolk Cornell Cooperative Extension](#)

Garlic Bloat Nematode- Nematodes are **microscopic**, non-segmented roundworms that cause disease in many plants.

Symptoms Foliar symptoms on severely infected garlic include:

- Stunting;
- Yellowing and collapse of leaves
- Premature defoliation (Fig. A);



Issues to be concerned with-Soil Borne Disease

Source: [Suffolk Cornell Cooperative Extension](#)

Botrytis-

- Cool, wet conditions are most favorable. Neck rot is also more likely to occur with high plant density, over-irrigation, and excessive nitrogen fertilization. Neck rot is more common on garlic grown in heavy soil types.
- The causal fungus, *Botrytis porri*, usually infects mature plants through the neck tissues or through wounds in the bulbs or leaves, including wounds from topping before harvest.



Management-Prevention!

Purchase only seed that is certified disease free from reputable sources:

Certified to be free of

- Garlic bloat nematode
- White Mold
- Botrytis

Do not plant seed given to you by a friend or from the supermarket.

Understand the cycle of disease and use cultural practices to reduce it.



© Roseanna LaCourse

Main Potato Lady:

[Our Products](#): Garlic Seed for Fall Planting

This year, we offer four hardneck varieties and one softneck variety; **all are certified organic and hardy and productive in our northern climate.** Order now and we will ship in the fall. **All garlic is tested free of garlic bloat nematode, white mold, and Botrytis. 2" minimum bulbs.**

Harvesting Garlic

Opportunities abound:

Green garlic in mid-Spring (Soft or Hardneck)

Garlic Scapes-June (Hardneck)

Garlic ! - Early - Mid July



Green Garlic



Garlic Scapes



Garlic!



Harvesting Garlic + Curing Garlic

- Use a fork to loosen the soil
- Harvest during dry weather
- Gently remove soil from base of plant
- Discard any imperfect heads (or use them First)
- Place in a cool dry shaded place (Not the sun!)
- Hang or dry on rack with good airflow



Photo by Ganpati Jagdale
Copyright: Bugsforgrowers.com
5/10/2012



© Grow a Good Life.com



Final Process + Storing Garlic

Once harvested, Garlic can be eaten.

The curing process ensures long term storage

- Ensure the stalk of the garlic is totally dried down
- Cut stalk off to about 1 inch above bulb
- Keep in cool, dry, dark place
- Use sprouting cloves first

Seed Library Demo Garden Garlic 2019



Call for Volunteers!

What: The Daffodil Project

When: Thursday 10/17 2:00 pm - 4:00 pm *Rain Date:* Friday 10/18 10:00 am - 12:00 pm

Where: Glen Cove Public Library

Why: To memorialize those lost on 9/11

How: Bring tools + gloves, we'll provide the bulbs

Who: You!!! (Must be able to dig a hole + bend over!)

Sign up on the sheet!

About the Daffodil Project


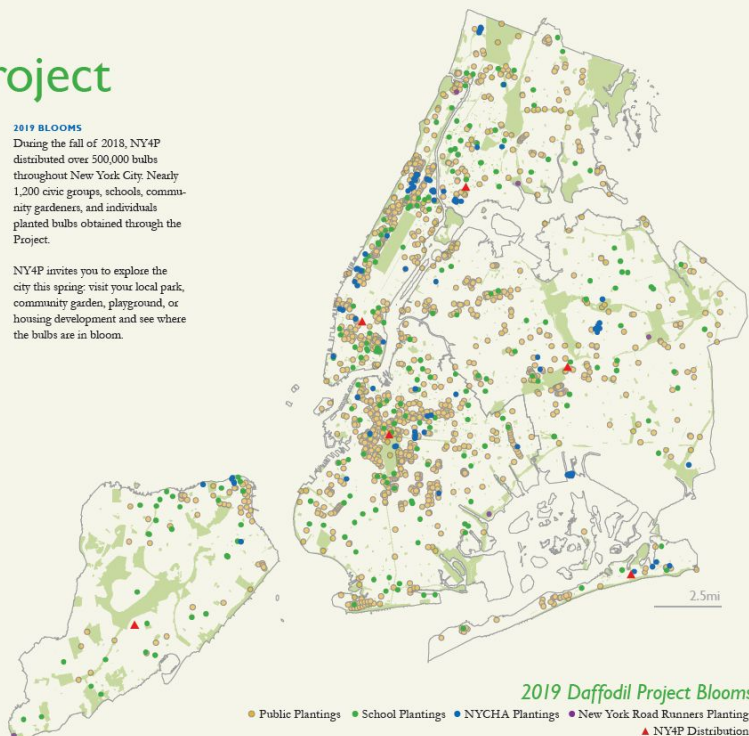
FALL: BULB DISTRIBUTIONS AND PLANTINGS
Each September and October, NY4P distributes hundreds of thousands of daffodil bulbs throughout the city. The bulbs are free to everyone who will plant them in a public space, such as a park, tree pit, garden, schoolyard, or NYCHA development. To find out how to get bulbs, visit our website: www.ny4p.org/the-daffodil-project.

SPRING: BLOOM TIME!
When the daffodils bloom in the spring, NY4P loves to see photos from all five boroughs. All New Yorkers are encouraged to share photos on social media using #daffodilproject.

NY4P hosts an annual Daffodil Breakfast to celebrate the volunteers who work tirelessly to improve their communities and make the Daffodil Project a success.

2019 BLOOMS
During the fall of 2018, NY4P distributed over 500,000 bulbs throughout New York City. Nearly 1,200 civic groups, schools, community gardeners, and individuals planted bulbs obtained through the Project.

NY4P invites you to explore the city this spring: visit your local park, community garden, playground, or housing development and see where the bulbs are in bloom.



2019 Daffodil Project Blooms

- Public Plantings
- School Plantings
- NYCHA Plantings
- New York Road Runners Plantings
- ▲ NY4P Distributions

Q + A

