



Harvesting garlic, from *Tacuinum Sanitatis*, 15th century (Bibliothèque nationale de France)

# Garlic

Allium Sativum



Michael Rouse, Port Royal

# Topics

- Introduction
  - History
  - Types
- Medicinal uses: fact or fiction
- Sourcing
- Planting
- Harvesting
- Preparation



# Garlic is an Allium

- ▶ Allium Family includes:
  - ▶ Onion, leeks, chives and shallots
- ▶ Garlic is native to Central Asia and NE Iran
- ▶ Two types: soft neck and hard neck
- ▶ Pollinated predominantly by butterflies, moths and bees
- ▶ Used in culinary and medicinal applications for thousands of years
  - ▶ e.g., Romans dedicated garlic to Mars: the god of war
    - ▶ Soldiers ate garlic before battle for courage and protection
    - ▶ Roman army spread use of garlic throughout Europe
  - ▶ Though the English-speaking world was slow to adopt garlic

# Medicinal Properties

- ▶ Active Ingredient (API)
  - ▶ Allicin and other sulfur compounds
- ▶ One 3 gram clove also contains (source: USDA)
  - ▶ Manganese: 2% DV
  - ▶ Vitamin B6: 2% DV
  - ▶ Vitamin C: 1% DV
  - ▶ Selenium: 1% DV
  - ▶ Fiber: 0.06 grams
  - ▶ Plus: varying amounts of copper, calcium, potassium, phosphorus, iron and vitamin B1
- ▶ Low in calories: 4.5 calories, 0.2 grams protein, 1 gram carbohydrates
- ▶ Therapeutic Evidence: Daily garlic reduced number of colds by 63%
  - ▶ Mean length of cold symptoms reduced by 70% vs placebo group
  - ▶ (double-blind, placebo-controlled RCT. N=146 Source: Josling, P 2001. Adv. Ther.
- ▶ Cochrane Database: 2014, More study needed

**Note: Consult your Primary Care Physician**



# Other Medicinal Data

- Garlic demonstrated good results in reducing systolic and diastolic blood pressure in patients with hypertension (N=210, p: 0.005) (Ashraf, et al., 2013)
- Systematic Review (Reid, 2016. J Am. Soc. Nutrition):
  - Blood pressure – decrease in systolic blood pressure (p<0.001), decrease in diastolic blood pressure (p<0.002) vs placebo (N=970)
  - Cholesterol – RTC (N=2300) reduced cholesterol
  - Immunity – significantly reduced number, duration, severity of upper respiratory infections.
- Conclusion: recommended as supplementary treatment, but more study needed

**Note: Consult your Primary Care Physician**

# Where to get “seed” garlic

- Garlic cloves are the “seed” (but so are the bulbils)
- Availability
  - Local Grocery Store
    - Beware much of the imported garlic
    - Likely poor results
  - Seed companies, e.g., Vesey’s, William Dam, etc.
    - Prices vary: \$15 to \$30 per pound
  - Local Growers: e.g., Annapolis Royal Market, Julia’s North Mountain Farm shop.

## It's about the soil (of course)

- ▶ Garlic prefers a well draining, sandy loam loaded with organic matter to hold water during dry spells
  - ▶ Load with lots of compost
- ▶ Best pH: 6.0 – 7.5
- ▶ Requires more nitrogen to get going than you'd think given they're not particularly leafy
  - ▶ Fertilize with well rotted manure, or 1-2 pounds 10-10-10, or 2 pounds blood meal per 100 sq. ft.
  - ▶ Fertilize in the spring then every 3 or 4 weeks, but reduce nitrogen after 1<sup>st</sup> feeding in spring.

# Planting

- Last full moon of October (the Hunters' Moon), Plant your biggest and best cloves about 4 inches deep, pointy end up.
- Space 6 – 8 inches apart in all directions
- Mulch 4 to 6 inches high with straw
  - (in the spring, pull back the straw to fertilize, then push it back to hold in moisture)
- Beware: if you plant pointy end down, you'll get this...





# Growing on

- Remove garlic scapes at leaf level when they curl.
  - Yields bigger bulbs



Garlic Scape



Flower Head



Bulbils

# The Harvest

- ▶ Harvest when bottom 4 leaves have dried
  - ▶ Late July/early August
- ▶ I tie garlic in labelled bundles of 10 and hang them to cure for about 6-8 weeks in airy barn or shed
  - ▶ Air circulation is critical
  - ▶ Cut stem to test; If cool, they are not ready
- ▶ If you grow soft neck garlic they can be braided and hung to cure

# Using Garlic

- It's not just for breakfast anymore!
- For a starter or for garlic mash, whole roasted bulbs
- Use cloves whole, unpeeled, e.g., in roast chicken; it's delicate
- Use whole cloves but peeled, still delicate but more flavour, e.g., seared scallops
- Coarsely chopped, more heat, more flavour, e.g., persillade or gremolata.
- Slivered, ideal with fish
- Finely chopped, e.g., stews or mushroom dishes
- Pureed, for curries, dips, etc.
- For dessert
  - Garlic ice cream!...really

# Final Medicinal Use

During the Covid Pandemic eat garlic...  
It does not prevent Covid, but...



...it ensures social distancing



► The end

