



Garlic!

Directions: Read the key words and the article below and answer the questions that follow.

Key words

- **Root Vegetable (n.):** Vegetables that come from plant parts grown underground. Examples of root vegetables include: beets, carrots, garlic, ginger, onions, turnips, and yams.
- **Pungent (adj.):** Having an intense odor or flavor¹.
- **Allicin (n.):** A unique compound produced by chopping or crushing raw garlic. Allicin is known to have medicinal properties.

Article

Garlic: Introduction

Have you ever walked by an Italian restaurant and smelled something delicious? You were probably smelling garlic! Garlic is a **root vegetable**, a vegetable that comes from plant parts grown underground. Garlic is part of the *allium* family of plants. Garlic is related to onions, leeks, and shallots. People all over the world cook with garlic for its flavor. Humans use about 14 million tons of garlic per year²! Garlic has a **pungent**, or intense, smell and taste. It is often used as a spice in cooking. Garlic has also been used for health and healing for thousands of years.



Garlic, It's Good for Your Health!

People have used garlic as medicine for centuries. The ancient Romans fed garlic to their armies. They believed that garlic gave people strength. Roman soldiers brought garlic with them every place they went. They shared garlic with the people they met. In Egypt, archaeologists found garlic from 1325 BCE in King Tut's tomb³! Thanks to science, we now know why chopped and crushed raw garlic is good for the body. Raw garlic that has been chopped or crushed gives off **allicin**. Allicin is a compound that is good for health⁴. You smell allicin when you cook with garlic!

¹ Merriam-Webster. (n.d.). Pungent. In *Merriam-Webster.com dictionary*. Retrieved October 21, 2020, from <https://www.merriam-webster.com/dictionary/pungent>

² Block, E. (2010). *Garlic and Other Alliums: The Lore and The Science* (1st ed.). Royal Society of Chemistry, p. 29.

³ Ibid, pp. 19-22.

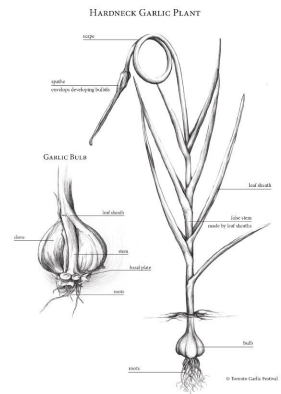
⁴ Wong, C., & Kroner, A., DAOM, LAc. (2020, July 6). *The Health Benefits of Allicin*. Verywell Health. <https://www.verywellhealth.com/the-benefits-of-allicin-88606>

Allicin is a natural antibiotic. It kills parasites, fungi, and bacteria that cause disease. Allicin can also be used to fight off plant predators and diseases in the garden.

Try This! Next time you're looking for a healthy snack, have a parent or guardian help you make homemade garlic bread. Toast bread, rub raw garlic on top, and spread with oil or butter.

The Parts of a Garlic Plant

Each new garlic plant grows from a single clove. The clove is the part of the garlic that we most often cook with. Raw cloves are also used for planting. Garlic cloves used for planting are called “seed garlic.” Each clove has a flat side, called a [basal](#) plate. At the other end of the clove is a pointy tip. The basal plate should face down into the ground when planted. The pointy tip should face up, towards the sun. The seed garlic will grow roots from the basal plate. A stem will grow from the pointy tip. The garlic stem will grow up through the ground and produce leaves. Hardneck garlic also produces a plant part known as a scape. The scape includes a long stem and flower bud. As scapes grow, they twist and coil into shapes. Scapes used in cooking add a garlic flavor. Harvest scapes in early summer. This allows garlic plants to spend their energy on growing bigger, more flavorful garlic bulbs.



How to Grow Garlic

Fall is the best season for planting garlic if you live in a cold climate. Garlic should be planted before the first frost. Low winter temperatures help garlic grow faster in the spring and summer. You can use garlic you find in the kitchen for planting. However, it is best to use seed garlic for planting. Seed garlic can be purchased online or from most garden stores. Follow the steps below to plant and grow your own garlic!

Garlic Planting:

- 1. Separate seed garlic.** When you're ready to plant your garlic, begin by separating each clove from the garlic bulb. Leave the extra layers of papery skin on the cloves.
- 2. Dig a hole.** For each clove, which will produce one new plant, dig a hole that is as deep as your pointer finger (about two times the size of the clove). Make sure that each hole is also about two hands' lengths away from each other.
- 3. Remember!** Remember to plant the garlic clove "*pointy tip up*" and "*flat side down*".
- 4. Cover the clove with soil.** In the spring, you will notice the garlic begin to sprout green growth.
- 5. Harvest the scape (Hardneck garlic).** By early summer, the plant will have grown tall and will have a scape on the end. When the scape has curled twice, it's time to remove that part of the plant with your fingers or scissors.
- 6. Harvest the garlic.** Once the tips of the first three to five leaves have turned brown, typically in mid- to late-summer, it's time to gently loosen the plant from the soil⁵.
- 7. Cure the garlic.** After the garlic has been removed from the soil, find a dry, shaded place where the garlic can cure, or dry out. It's typical for growers to tie garlic up while the garlic cures to keep it safe from becoming injured and to help with airflow.
- 8. Remove roots and stems for storage.** After a few weeks, you can remove the stem and the roots from the bulb and store your garlic in a cool, dry spot until you're ready to eat it!

Questions for Discussion

1. What are some of the key characteristics of garlic? What did you learn about garlic that interests you?
2. What is the compound found in garlic that is good for health?
3. Do you, or anyone that you live with, cook with garlic? If yes, what are some of the recipes that garlic is used in? How would you describe the taste or smell of garlic?

⁵ McClusky, P. (2020, July 30). *Growing Garlic*. Toronto Garlic Festival. <https://torontogarlicfestival.ca/growing-garlic/>