

Onion: A Brief History

“I will not move my army without onions.” This curious message was sent by General Ulysses S. Grant to the War Department in Washington during the Civil War. It reflects the fact that, throughout history, onions were valued as much for their medicinal properties as for their culinary use. While we have more sophisticated ways of treating battle wounds today than using onions, their healthful nature and ability to add culinary interest to bland dishes makes onion the third most important vegetable in the world. March is a good month to plant onions in Missouri and to talk further about this interesting vegetable.

“Onion” is somewhat a generic term that refers to several pungent members of the genus *Allium* (Lilaceae family) including common (bulbous) onion, garlic, leek and others. The word was derived from the Middle English union which, in turn, came from the Latin unio. The latter means “one” or “unity” and refers to the onion’s single bulb consisting of concentric rings. The pungency of onions is due to volatile sulfur compounds (thiosulfinates) which, in turn, are produced from sulfur-containing flavor precursors released when onion cells are ruptured or cut.

Onion is thought to have originated more than 5000 years ago in Central Asia and is one of the most ancient of food sources. Its consumption by humans can be traced back to the Bronze Age. A staple in the diet of many early civilizations, it was especially important in ancient Egypt. In addition to being consumed as a food, Egyptians worshiped onion thinking its concentric rings symbolized eternal life. Indeed, it was often buried along with their dead. Ancient Greek athletes consumed large quantities of them thinking it would “balance” their blood and improve their athletic prowess. Later, after conquering Greece, Romans ate onions regularly and also rubbed it on their gladiators to tone their muscles.

Throughout antiquity the medicinal properties of onion were widely avowed. As a result, it was used by ancients to treat a wide array of conditions ranging from irregularity to hair loss. Early Americans used wild onions to treat colds, coughs, asthma and breathing problems. Today, onion is still considered a health food. Its consumption has been associated with a reduced risk of cancer, heart disease and diabetes because of its high level of phenolic and flavonoid compounds with high antioxidant activity. In general, onions with greater pungency have higher antioxidant activity than milder types.

There are three basic groups of onions; all are used more to flavor dishes than as a main course themselves. The common onion (*Allium cepa*) is known only in cultivation and is the most important of the three. This is the type of onion we plant in our gardens in the spring. It produces a single, large bulb that usually matures by mid-summer in our climate. Green onions are simply plants of this species that are pulled before the bulb is well-formed. The common onion is able to produce seed which is its primary means of propagation.

The remaining two groups of onion do not produce seed and normally are vegetatively propagated. The ‘aggregate group’

includes onions (e.g. shallot and multiplier onion) that produce a cluster of bulbs at the soil line. The less common ‘proliferous group’ produces small bulbs in the flower cluster which, in turn, drop to the soil and take root. The latter often are referred to as Egyptian onion, walking onion or winter onion.

Common onion is spring-planted and may be grown from sets, transplants or seeds. In all cases planting should be done as soon as the soil can be worked in the spring. Onion sets are the most common means of planting onions. ‘Sets’ are small bulbs that develop quickly to produce green onions or allowed to mature to produce (dry) bulbs. To produce green onions plant the sets in a well-drained soil about an inch apart. For larger dry bulbs, sets should be placed no closer than two inches apart. Small sets are more desirable than larger sets which tend to flower more easily. If flowering occurs, the flower head should be removed as soon as it is visible. Onions which flower form smaller bulbs which do not store as well as bulbs harvested from non-flowering plants.

Onion transplants represent seedlings which have been started (usually in the South) by a specialist propagator, pulled at an early stage of growth and shipped north for sale as propagules or “starts”. Large, sweet types such as Sweet Spanish and the Bermuda types frequently are grown from transplants. They should be spaced four to five inches apart within rows spaced 12 to 18 inches apart. As a rule, “sweet” onions do not store as well as the more pungent types.

Onion is a cool season crop with a fairly long maturity (95+ days). Consequently those produced from seeds planted directly outdoors normally do not perform well in Missouri because of our hot summers. Instead, when are used, they should be started indoors well in advance of outdoor planting since onion seedlings grow slowly.

Onion also is a photoperiodic plant. Some onion varieties exhibit a short day response and will form bulbs only when the length of day is 12 hours or less. Other varieties are long day in response and form bulbs when day length is at least 15 hours. Varieties grown in Missouri typically are of the latter response group which is another reason why onions seeded directly into the garden do not perform well in our state.

However they are started, onions grow best under cool temperatures (55 to 75 degrees F) in a loose, friable soil. Onions are sensitive to acid soils and soil pH should be kept in the 6.2 to 6.8 range. As with most vegetables, fertilizers should be applied according to soil test recommendations. When called for, a fertilizer low in nitrogen but high in phosphorus and potassium (e.g. 5-10-10) is recommended.

Weed control is important in onion production since they do not compete well with weeds. Mulching (after onions are established) will help to control weeds as well as conserve moisture. Common production problems with onions include insects such as thrips and onion maggots along with fungal diseases such as downy mildew, neck rot, pink root and smut.

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Although onions can be used any time during their production, bulbs destined for storage should be harvested when the “neck” dries and the tops have fallen over. After digging, onions should be cured for several weeks by placing them in a warm location with good air circulation and low humidity. After curing is completed, onions are best stored in relatively cool conditions, dry conditions.

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Onion Trivia

- World onion production is estimated to be about 105 billion pounds each year.
- The United States produces more than 2 million metric tons of onions annually.
- The largest onion ever produced weighed 10 pounds and 14 ounces.
- The average American consumes over 20 pounds of onions each year.
- Men eat 40 percent more onions than do women.
- During the Middle Ages onions were considered so valuable they were used to pay rent.
- Most people tear-up when cutting onions because of sulfur-containing compounds that are released; chilling an onion before cutting it helps to curtail the crying.