

About the Onion...

Contact: Diane Relf, Extension Specialist, Environmental Horticulture

August 1996

The onion belongs to the lily family, Amaryllidaceae, and the genus, *Allium*. Alliums are perennial herbs with bulbous, onion-scented underground stems. This genus includes garlic, chives, shallots, leeks, and even a non-edible species grown solely for its showy flower. The common garden onions are in the species, *Allium cepa*.

The onion is one of the oldest cultivated vegetables in history. A wild ancestor to the onion has never been found, so its history has been traced using the earliest known written records. These records show onions were cultivated along the banks of the Nile River 5000 years ago. The onion shape was represented as a deity on monuments during the First Egyptian Dynasty (3000 BC). The Egyptians also used onions for funeral offerings, for embalming, and either within or attached to mummies further symbolizing the importance of onions in their lives. Both Romans and Greeks revered the onion for its physical benefits and spiritual symbolism. The Romans felt the concentric circle configuration of the onion represented eternity. By the 16th century, several types of onions were commonly grown in Europe and were believed to cure dozens of ailments. The onion reached North America when landing parties sailing with Christopher Columbus planted them in the West Indies, and later New England colonists routinely sent back to the continent for onion seeds.

There are five ways to classify onions -- basic use, flavor, color, shape of the bulb, and day length. The four basic types of onions are "storage onions", "fresh onions", "pearl or mini onions", and "green onions". The major differences between "storage" and "fresh" is that "storage onions" have a darker color with thicker skins, a more pungent flavor, and are usable for many months of the year since they are better keepers. "Fresh onions" have a lighter color with a thin skin, a milder, sweeter flavor, and are best eaten fresh because they are not good keepers. The most famous "fresh onion" is the Bermuda.

There are three onion flavors -- sweet, mild, and pungent. The flavor of the onion is a result of the growing conditions. Soils containing a high amount of sulfur grow more pungent flavored onions. The color of onions can be white, yellow, or red. The bulb shape is globe or round, flattened, or torpedo shaped.

Onions are particularly sensitive to the hours of daylight and darkness they receive. This trait is not obvious and can be the reason for total failure in growing onions. First, it is important to understand how they grow. When first planted, their growth is concentrated on roots and green leaves or tops. When a specific combination of daylight and darkness is reached, the bulb starts to form. The tricky part is that each variety of onion needs a particular combination. Onion breeders have three categories of onions according to their daylength needs. A "short day" onion responds to 11 to 12 hours of daylight; an "intermediate day" onion needs 12 to 14 hours of daylight; and a "long day" onion requires 14 or more hours of daylight for bulb formation to start. The daylength required for bulb formation in your area is directly related to the time of year when you plant the onions which is determined by temperature. In warm areas that produce winter onions, short day onions are used. In areas that plant in late winter for early summer harvest, intermediate day onions are best. And in areas that are too cold to plant until late spring, summer or long day varieties of onions are used.

Onions release a powerful vapor when cut that affects the nerves in the nose and eyes. Holding them under running water while peeling or putting them in the freezer for 1/2 hour before chopping may help you avoid the tears while cutting. Also, the root end of the onion contains more of the irritating compound, so cut from the top down.

(Written by Karen Nash, Consumer Horticulture Intern, Virginia Tech. Source: The National Bureau Celebrates 1995 as the Year of the ONION. The National Garden Bureau.)