

Carrot (*Daucus carota*)

Scientific Classification and Anatomy

Carrots are a root vegetable also known as *Daucus carota*, a member of the Umbelliferae family and thus related to parsley, dill and celery. Like the rest of these vegetables, the carrot plant has an “umbrellalike inflorescence called an umbel”¹, a structure seen when the pedicles of each flower all diverge out of a common point on the larger stem of the plant. Nowadays the most commonly cultivated variety called *D. carota sativus* has an orange root, and were cultivated from earlier yellow versions. In comparison, the wild carrot commonly called Queen Anne’s Lace is often white while other varieties of carrots can be purple. The yellow carrots were probably mutated varieties of purple ones that became more popular through extensive breeding.²

In addition to being different colors, carrots also have many varieties in shape. The most common versions we see today are long and tapering, but other varieties are more round and bulbous or thick and cylindrical. In its second year the plant will flower, a process called bolting at which point the main stalk grows and the many umbels form, displaying small white flowers.

¹ Rubatzky, Vincent E, and Yamaguchi, Mas. World Vegetables: Principles, Production and Nutritive Values. New York: Chapman & Hall, 1997

² ibid

Growing Carrots

Carrots are pretty hardy plants, and can be grown from early spring into fall in New England and New York³. When growing carrots, bolting is considered undesirable, even though they are the plants mechanism for reproduction. This is because the edible taproot should ideally have as little xylem tissue as possible. Xylem is the tissue in the stalk used to transport water, and bolting leads to an increase of xylem in the center of the root⁴. Another problem to avoid is root decay, which can be solved by planting carrots in raised beds so the soil drains more rapidly⁵. They grow well in mild climates between 16°C and 21°C and in moist, well-drained sandy loam soil or peat. Compaction of soils or soil that is too shallow can inhibit growth of the taproot.

Nutrition

Carrots are one of the top ten foods that food consumers identify as having “health benefits beyond basic nutrition”⁶. This reputation comes with good reason, as carrots are rich in carotenoids which are used to make vitamin A during digestion, and vitamins B, C, D, and E. They’re also high in folic acid, fiber, and minerals like K and Na.

³ ibid

⁴ Splittstoesser, Walter, Vegetable Growing Handbook: Organic and Traditional Methods. New York: Van Nostrand Reinhold, 1990

⁵ ibid

⁶ pp. Encyclopedia of Food and Culture. New York: Charles Scribner, 2003.

History

Carrots originated in present day Afghanistan about 5000 years before present, probably originally as a purple or yellow root like those pictured here⁷. Evidence for purple carrots is seen in Egypt as far back as 2000 B.C. Many other colorful varieties were later found in Asia and there is also evidence of their use in Greece during the Hellenistic period. However, it is not known whether or not the Egyptians or Greeks cultivated a very edible plant or if they only grew wild carrots.⁸ Mostly they were used medicinally.⁹ It likewise found a place as a medicinal plant in the gardens of ancient Rome, where it was used as an aphrodisiac.

After the fall of Rome carrots stopped being widely seen in Europe until they the Arabs reintroduced them to Europe in the Middle Ages around 1100.¹⁰ This time the edible carrot caught on, with violet carrots being grown in Italy and used in desserts. By the 1500s many different types of carrots were being consumed all over Europe. While the Arabs are responsible for introducing the plant to the western world, it is the Dutch who get credit for breeding the “modern” carrot *D. carota sativus*. They cultivated many different types of plants and the sweet orange carrot became the most popular.

It was brought to Jamestown in 1609 with the first English settlers in the New World, and then again in 1629 by the Pilgrims in Massachusetts. By 1700s in Europe the plant was so well established that it had crossed over from a rare exotic vegetable to daily food of the urban middle class. Eventually the Crow Native Americans used the wild

⁷ “Carrots.” *The Oxford Encyclopedia of Food and Drink in America* Vol. 1. New York: Oxford University Press, 2004

⁸ Weaver, William Woys. *Heirloom Vegetable Gardening*. New York: Henry Holt and Company, 1997

⁹ “History of the Carrot-Origins and Development”. Feb 4, 2008. <http://carrotmuseum.co.uk/history.html>

¹⁰ Weaver, William Woys. *Heirloom Vegetable Gardening*. New York: Henry Holt and Company, 1997

carrot introduced by the Pilgrims as a diuretic and menstral stimulator. Meanwhile, settlers in Pennsylvania used the carrot as a postcoital contraceptive.¹¹ The carrot had officially caught on in the western world. It kept well, traveled well, and could be eaten in many different ways, making it a very flexible vegetable and thus of great value. Among the popular varieties grown were the Early Horn, Early Half-Long, Late Half-Long, Scarlet Horn and Long Orange.

Carrots in Upstate New York

While originally warm weather plants, carrots were grown in New England and central New York. The Iroquois grew a great amount of carrots, and in 1779, when General John Sullivan marched against the Iroquois nation for siding with the British during the Revolutionary War, his burned much of their land and destroyed their carrot crops.¹² As attached as the Native Americans were to their carrots, the newly American colonists also demonstrated a fondness for it as well. The Shakers and Dutch Mennonites in Pennsylvania were prolific growers and distributors of carrots and carrot seeds in the nineteenth century. Their most common varieties were the Early Horn and Long Orange¹³, which in central New York were “esteemed best for family use” while the red carrots were “highly recommended as food for horses”¹⁴.

¹¹ “History of the Carrot-Origins and Development”. Feb 4, 2008. <http://carrotmuseum.co.uk/history.html>

¹² “History of the Carrot-Origins and Development”. Feb 4, 2008. <http://carrotmuseum.co.uk/history.html>

¹³ Duane, William; “A Catalogue of garden, herb, flower, tree, shrub, and grass seeds, gardening, agricultural and botanical books, garden tools”. Philadelphia; William Duane, 1813.

¹⁴ Thorburn, William; Catalogue of Kitchen Garden, Herb, Flower, Tree and Grass Seeds, Bulbous flower roots, Greenhouse plants, Gardening, Agriculture and Botanical Books, Gardening tools, etc. etc. New York; Geo. P. Scott and Co, 1836.