

The Humble Carrot's Colorful History



*Adam Alexander -
Photo: Chelsea
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06-05-2024 ~ *The carrot has followed armies, colonial explorers, and politicians to become one of the world's most prized vegetables.*

We have the Arabs to thank for introducing carrots (*Daucos carota*) to Western Europe. Two distinct subspecies led to the domesticated carrot. The subspecies *D. carota sativus*, native to Turkey, was grown by the Arabs and consumed by their invading armies, both animal and human.

At the end of the 10th century, carrots were mentioned in a cookery book compiled by [Ibn Sayyār al-Warrā](#), an author from Baghdad. Called *Kitab al-T. abih* (Book of Dishes), it is the earliest known Arabic cookbook. It may have been added to the libraries of Europe's Moorish invaders who started their own vegetable gardens in the Iberian Peninsula early in the eighth century.

The first historical record of carrots as a crop in Spain and southern Europe, however, is found in the work of the great Arab agriculturalist [Ibn al-'Awwām](#), towards the end of the 12th century. This suggests that by this time, a number of different but unnamed varieties of carrots were being grown.

Some 200 years later, carrots were cultivated in northern Europe and were valued for their high sugar content. Recipes at the time turned carrots into jams, sweet condiments, and puddings.

A Colorful Debate

Although they came in various colors and shades—red, white, and yellow—they became the most favored in Europe because they were sweeter and didn't turn a muddy brown when cooked. The word "yellow" is used with some literary license, as carrot color has been the subject of much scholarly discourse over the years, including whether the orange carrot existed before the attentions of Dutch breeders.

While Moorish invaders introduced southern Europe to the western subspecies *sativus*, its relative, *D. carota atrorubens*, spread further east from Iran and the Hindu Kush along the Silk Road. Modern genetic sequencing shows that Chinese carrots, which come in red, white, purple, and orange, are all derived from [*atrorubens*](#).

Similarly, deep-red descendants of this family branch remain firmly part of the food culture of Rajasthan, a state in northwestern India. Colored varieties have become [trendy in Western food culture](#), having been a staple in the East for centuries. [Gajar al halwa](#), a Rajasthani dessert that calls for red carrots, dates at least back to the [Mughal Empire](#), which blended Persian, Mongol, and Islamic cultures. The sweet is still very popular throughout India.

The Color Orange

Columbus's arrival in the Caribbean in 1492 sparked a transfer of native vegetables in both directions across the Atlantic. The colonizers who followed him planted carrots, which could be stored for long voyages. However, it was not until the beginning of the 17th century that the carrot underwent a dramatic change of fortune.

As the 16th century drew to a close, Flemish growers started to work on improving the carrot's color, yield, appearance, and eating quality. Yellow, Western varieties, being biennial, were less likely to bolt (produce flowers and seeds rather than expand root size and leaf growth) than their Eastern cousins, and they were genetically predisposed to grow a single bulbous root full of sugars and flavors.

The word 'orange' is relatively new to the English language and first appeared in 1502 in reference to [clothing belonging to Margaret Tudor](#), the Scottish Queen. The orange, native to China, arrived in Europe with the Arabs at the beginning of

the eighth century and was called the *sinaasappel* (Chinese apple) in Dutch.

The Spanish took the Persian word for the fruit, *narang*, referring to the bitterness of its skin, and called it *naranja*, which in Old French translated as 'orange.' The 2011 edition of the Oxford English Dictionary describes the color orange used in Old English as *g.eolurēad* (yellow-red). This name for the fruit was probably adopted into Middle English at the same time as the orange first appeared in Britain after the Norman Conquest in 1066, but it was not used to describe the color of a carrot until much later.

So, it is not surprising that descriptions of carrots of all shades of yellow and red didn't describe them as 'orange' until the word became a common adjective in sixteenth-century English. Because of this, earlier descriptions fail to help the researcher determine a variety's true color.

Although red carrots were cultivated across Europe from the eleventh century, highly selective breeding by the Dutch led to the familiar orange variety becoming ubiquitous 500 years later. It is a common belief that breeders created the carrot to honor the Dutch royal family, but this is a myth. Nevertheless, the carrot became a tool for political propaganda when William and Mary took over the British throne after a bloodless coup in 1688 known as the Glorious Revolution. William inherited the title of sovereign Prince of Orange after a feudal principality, complete with orange groves, in Provence, southern France.

The reality is that the Dutch were growing orange carrots long before William inherited his title and moved to England. Nevertheless, the orange carrot is the Netherlands' national vegetable, and many of its people still cling to the idea that its color was created as a tribute to the House of Orange. As a marketing strategy and way to raise 'brand awareness,' it was brilliant, and it would be churlish to disabuse them of their belief. Since the carrot genome was unraveled, we have learned that orange carrots are the direct descendants of yellow varieties and are a testament to Dutch breeders' genius.

A Long-Lasting Heritage

By the 17th century, carrots had become part of a subsistence diet throughout Europe and the Americas, but different varieties had yet to be given names. A seed seller from London, William Lucas, lists red, orange, and yellow carrots in his catalog of 1677. Although Dutch breeders had named varieties, these were

kept from consumers for another hundred years.

At the end of the eighteenth century, English merchants at last listed a few named varieties. The Curtis seed catalog of 1774 includes three: Early Horn, Short Orange, and Long Orange. In 1780, J. Gordon of Fenchurch Street listed just two carrots: the Early Horn and the Orange or Sandwich carrot (Sandwich refers to where they were grown).

Carrots grow best in light soil, and the land around Sandwich in Kent was perfect. Flemish immigrants escaping Catholic persecution in the latter half of the sixteenth century settled in Kent and grew them there for themselves and their new Protestant queen, Elizabeth I. We also know that Early Horn is one of the oldest named varieties and is related to many of those we enjoy today.

Not only do we have to thank Dutch breeders for the ubiquity of the orange carrot, but we should also give thanks to a Dutchman, O. Banga, who wrote a considerable body of work on the history of carrot cultivation and breeding in the early 1960s. He identified two Dutch varieties, Scarlet Horn and Long Orange, as the progenitors of almost all of today's orange carrots.

Genetic analysis shows us that purple carrots that originated in Afghanistan mutated into yellow ones. As a reminder, descriptions of carrots as being red actually describe those colored purple, similar to red cabbage and red beetroot. Color changes in the earliest cultivated carrots happened through accidental mutation rather than hybridization. The Western Europeans' preference for the yellow over the purple carrot was encouragement enough for those 18th-century Dutch breeders to work on ever-deeper yellows until they got a sweet and tasty orange the consumer would buy.

By the middle of the 18th century, we had new varieties: Early Half Long-Horn, Late Half Long-Horn, Early Short-Horn, and Round Yellow; the last two being the parents of nineteenth-century classics, Paris Market, and one of my favorites, Amsterdam Forcing. It is a testament to breeders' skill that these two early varieties continue to be hugely popular after over 250 years in cultivation. Other carrots, such as Nantes types—with cylindrical roots—resulted from a century of breeding from the now-extinct cultivars Late Half Long-Horn and Early Half Long-Horn. The name suggests the French had a hand in developing this type.

According to Banga, early twentieth-century breeders gave us Emperor. This

long, tapering type is a cross between the Nantes and Chantenay, a red-cored variety (delicious, by the way) that had been bred from another eighteenth-century variety called Oxheart. Emperor types are the basis for most modern cultivars developed for today's supermarket trade.

Autumn King is an open-pollinated stalwart that has been around for a century or more and, thanks to climate change, one that can sit happily in the soil through the winter to be harvested as and when required.

The prettily named Flakkee, an excellent overwintering storage variety, has claims to Italian heritage. It is synonymous with Autumn King, which raises the question: Do we have another example of breeders renaming varieties to suit their markets and cultural sensibilities? Fortunately, many of these very earliest carrot breeds are still with us, and regardless of what they are called, they are culinary delights.

The world's love of carrots and the importance of color in different societies and food cultures means the many traditional varieties grown for centuries will continue to thrive alongside modern cultivars, which are the product of sophisticated modern plant breeding techniques.

By Adam Alexander

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