


Brassica oleracea

<i>Brassica oleracea</i>	
	
Wild cabbage plants	
Scientific classification	
Kingdom:	Plantae
(unranked):	Angiosperms
(unranked):	Eudicots
(unranked):	Rosids
Order:	Brassicales
Family:	Brassicaceae
Genus:	<i>Brassica</i>
Species:	<i>B. oleracea</i>
Binomial name	
<i>Brassica oleracea</i> L.	

Brassica oleracea is the species of plant that includes many common foods as cultivars, including cabbage, broccoli, cauliflower, kale, Brussels sprouts, savoy, and Chinese kale. In its uncultivated form it is known as **wild cabbage**. It is native to coastal southern and western Europe. Its tolerance of salt and lime and its intolerance of competition from other plants typically restrict its natural occurrence to limestone sea cliffs, like the chalk cliffs on both sides of the English Channel. Wikipedia:Citation needed

Wild *B. oleracea* is a tall biennial plant, forming a stout rosette of large leaves in the first year, the leaves being fleshier and thicker than those of other species of *Brassica*, adaptations to store water and nutrients in its difficult growing environment. In its second year, the stored nutrients are used to produce a flower spike 1 to 2 metres (3–7 ft) tall bearing numerous yellow flowers.

Cultivation and uses

B. oleracea has become established as an important human food crop plant, used because of its large food reserves, which are stored over the winter in its leaves. It is rich in essential nutrients including vitamin C. A diet rich in cruciferous vegetables (e.g., cabbage, broccoli, cauliflower) is linked to a reduced risk of several human cancers.^[1]

Although it is believed to have been cultivated for several thousand years, its history as a domesticated plant is not clear before Greek and Roman times, when it was a well-established garden vegetable. Theophrastus mentions three kinds of *rhapphanos* (ῥάφανος):^[2] a curly-leaved, a smooth-leaved, and a wild-type.^[3] He reports the antipathy of the cabbage and the grape vine, for the ancients believed cabbages grown near grapes would impart their flavour to the wine.^[4] It has been bred into a wide range of cultivars, including cabbage, broccoli, cauliflower, and more, some of which are hardly recognisable as being members of the same genus, let alone species. The historical genus of Crucifera, meaning four-petalled flower, may be the only unifying feature beyond taste.



Several cultivars of *Brassica oleracea*, including kale, Brussels sprouts, savoy, and Chinese kale

Origins

According to the Triangle of U theory, *B. oleracea* is very closely related to five other species of the genus *Brassica*.

The cultivars of *B. oleracea* are grouped by developmental form into seven major cultivar groups, of which the Acephala ("non-heading") group remains most like the natural Wild Cabbage in appearance:

- *Brassica oleracea* Acephala Group – kale and collard greens
- *Brassica oleracea* Alboglabra Group – Chinese broccoli
- *Brassica oleracea* Botrytis Group – cauliflower, Romanesco broccoli and broccoflower
- *Brassica oleracea* Capitata Group – cabbage
- *Brassica oleracea* Gemmifera Group – brussels sprouts
- *Brassica oleracea* Gongylodes Group – kohlrabi
- *Brassica oleracea* Italica Group – broccoli



Growing head of *B. oleracea* at Hooghly near Bandel in West Bengal, India

For other edible plants in the family Brassicaceae, see cruciferous vegetables.

In places such as the Channel Islands and Canary Islands where the frost is minimal and plants are thus freed from seasonality, some cultivars can grow up to three meters tall. These "tree cabbages" yield fresh leaves throughout the year, and harvest does not mean the plant needs to be destroyed as with a normal cabbage. Their woody stalks are sometimes dried and made into walking sticks^[5].



Cabbage can be cultivated to grow quite large in frost-free climates like this tree cabbage in the Canary Islands.

Gallery



Cabbage



Kale



Collard greens



Cauliflower



Romanesco broccoli



Broccoli



Brussels sprout



Kohlrabi



Kai-lan



Broccolini

References

- [1] Verhoeven DT, Goldbohm RA, van Poppel G, Verhagen H, van den Brandt PA (1996) Epidemiological studies on brassica vegetables and cancer risk. *Cancer Epidemiol Biomarkers Prev* 5(9):733–748.
- Higdon JV, Delage B, Williams DE, Dashwood RH (2007) Cruciferous vegetables and human cancer risk: Epidemiologic evidence and mechanistic basis. *Pharmacol Res* 55(3):224–236.
- [2] Compare Theophrastus; *raphanis* (ραφανίς), "radish", also a Brassica.
- [3] Daniel Zohary and Maria Hopf, *Domestication of plants in the Old World*, third edition (Oxford: Oxford University Press, 2000), p. 199.
- [4] Theophrastus, *Enquiry into Plants*, IV.6.16; *Deipnosophistae*, I, noting the effects of cabbages on wine and wine-drinkers, also quotes Apollodorus of Carystus: "If they think that our calling it a *rhaphanos*, while you foreigners call it a *krambê*, makes any difference to us women!" (*on-line English text* (http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Athenaeus/1C*.html)).
- [5] http://commons.wikimedia.org/wiki/File:Bâtons_d%27chour.jpg

External links

- PROTAbase on *Brassica oleracea* (*Brussels sprouts*) (http://database.prota.org/dbtw-wpd/exec/dbtwpub.dll?AC=QBE_QUERY&BU=http://database.prota.org/search.htm&TN=PROTAB~1&QB0=AND&QF0=Species+Code&QI0=Brassica+oleracea+Brussels+sprouts&RF=Webdisplay)
- PROTAbase on *Brassica oleracea* (*cauliflower and broccoli*) (http://database.prota.org/dbtw-wpd/exec/dbtwpub.dll?AC=QBE_QUERY&BU=http://database.prota.org/search.htm&TN=PROTAB~1&QB0=AND&QF0=Species+Code&QI0=Brassica+oleracea+cauliflower+and+broccoli&RF=Webdisplay)
- Video Overview of *Brassica oleracea* (<http://www.untamedscience.com/biodiversity/plants/flowering-plants/dicotyledons/brassicales/mustards/brassica/wild-cabbage/>): from Untamed Science

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