

# KOHLRABI

German Turnip, Stem Turnip, Cabbage Turnip

*Brassica oleracea* var. *gongylodes*

Brassicaceae

## ECHO® PLANT INFORMATION SHEET

### Description

Kohlrabi is a short (45cm), biennial plant that is cultivated as an annual vegetable. The stems of each plant swell at the base to form 5 - 10 cm in diameter edible, starchy globes. It's broad edible leaves spiral in whorls around the globe-like swollen stem and are held up by thin petioles (leaf stems).

### Origin

Originally from temperate climates of Central and Southern Europe, Kohlrabi is now widely distributed throughout Asia as well other tropical and subtropical areas including Central Africa and the Caribbean.

### Uses

Culinary (see below)

Heavily predated (bug-eaten) leaves can be fed to any livestock (or intentionally grown for forage, such as for cattle)

The leaf is digestive and tonic (high in fiber)

### Cultivation

- **Elevation** - Kohlrabi will grow well at any elevation in temperate regions. Best at elevations > 800 meters in the tropics because it gets heat stressed, though in cold seasons at lower elevations it will fair alright.
- **Rainfall** - Established plants are drought tolerant but larger and sweeter stems are produced when plants are not water-stressed
- **Soil Types** - Prefers well-drained fertile, alkaline soil (pH 4.5 - 7.5). Kohlrabi is salt-tolerant and can grow well in maritime areas
- **Temperature Range** - 18 - 25°C (65 - 77°F)
- **Light** - Prefers full sun, but in tropical regions shade helps prevent wilting.

Direct sowing does not typically have good success rate do to low seed-soil contact. Transplants can be planted 30 - 38cm apart (between row) and 24 - 30cm apart in-row. Between 1.5 - 2 kg/ha of seed is needed when transplanting seedlings, but is dependant on germination rates.

Fertilizer should be applied before transplanting (pre-plant), followed by a side-dressing of nitrogenous fertilizer during the expansion of the stem.

Withstanding even severe frosts, kohlrabi can be left in the ground all winter in most areas. The young growing plant, however, is sensitive to low temperatures and a week at 10°C will cause plants to bolt (flower early). Stems swell very quickly, becoming mature within 6 - 8 weeks after seeding.

Kohlrabi pairs well with *Allium* sp. (eg. onions), beets, cucumbers and aromatic herbs in intercropping (coupling crops together for mutual benefits). It does not grow well with strawberries, runner beans or tomatoes.

### Harvesting and Seed Production

Plants mature within 50 - 70 days from transplanting and should be harvested before the swollen stems become woody and fibrous (normally 5 - 10 cm in diameter are still sweet/soft depending on varietal differences).

Seed is rarely formed in tropical areas, even at high elevations as it requires a prolonged cold-triggered dormancy period. *Brassica oleracea* var. *gongylodes* is cross-compatible with most other Brassica varieties including cabbage and cauliflower, and should therefore be isolated from other *B. oleracea* varieties by at least 1 mile when seed is to be produced or kept in an isolation net.

Seeds should be harvested from disease-free pods that have dried down in the field are about to crack open. When stored a low temperature and humidity (Temp °F + % Relative Humidity < 100), seed viability may last up to 10 years or more.

### Pests and Diseases

Pests: *Athalia proxima* Kluz (Mustard Sawfly), *Brevicoryne* sp. (Mustard Aphid), Root-knot Nematodes (*Meloidogyne* spp.), Cabbage Butterfly (*Pieris canidia*)

Diseases: *Alternaria brassicae* (*Alternaria* Blight), *Fusarium* spp. (Cabbage Yellows), *Leptosphaeria maculans* (Blackleg), *Plasmidiophora brassicae* (Club Root), *Xanthomonas campestris* (Black Rot)

### Cooking and Nutrition

Young leaves are edible raw (in salads) or sauteed (in a braising mix). Larger leaves are edible raw or cooked and are used similarly to cabbage or collard greens.

Stem can be eaten raw or cooked. The swollen stem is often used similarly to a root vegetable (boiled, roasted or sauteed). It has a mild cabbage flavor, when finely grated it makes a good addition to mixed salads or slaws and, when cooked, is an excellent vegetable. Some say it has a texture similar to

that of a broccoli stem, but with a flavor that is sweeter. It is best eaten when fairly small and tender, between golf ball and tennis ball size (5 - 10 cm in diameter). It becomes coarse/woody with age.

## Varieties

There are several named varieties and stem color can range from green called 'white' in variety name to purple. Green forms are faster to mature and so more suitable for early sowings. Purple forms are hardier and mature later, therefore making them more applicable as winter crops.

Varieties: White Vienna, Violet Goliath, Early Purple Vienna, Early White Vienna, Kyote No. 3

Some varieties can be grown for cattle forage as well, such as White Vienna.

## References

Siemonsma J.S. and Kasem Piluek. *Plant Resources of South-East Asia*. No. 8 PROSEA, Bogor Indonesia 1994.

Tindall, H.D. *Vegetables in the Tropics*. Macmillan Press, 1983.

Ashworth, Suzanne. *Seed to Seed*. Seed Savers Exchange, Inc. 2002.