

Kohlrabi

Revised 2018

Thermal Properties

	English	Metric
Moisture, %	91.00	--
Protein, %	1.70	--
Fat, %	0.10	--
Carbohydrate, %	6.20	--
Fiber, %	3.60	--
Ash, %	1.00	--
Specific Heat Above Freezing	0.96 Btu/lb*°F	4.02 kJ/(kg*K)
Specific Heat Below Freezing	0.45 Btu/lb*°F	1.90 kJ/(kg*K)
Latent Heat of Fusion	131 Btu/lb	304 kJ/kg

Storage Conditions

Temperature	32°F (0°C)	
Relative Humidity	95 to 100%	
Storage Period	with leaves	2 to 4 weeks
	without leaves	2 to 3 months
Freezing Point	30.2°F (-1.0°C)	

Kohlrabi stems should be tender, succulent, and sweet. They tend to get tough and fibrous or woody if >3 inches (7.6 cm) in diameter when harvested. The cold storage conditions required for kohlrabi resemble those for topped carrots. Kohlrabi wilts readily and is subject to the common diseases that attack cabbage. The stems also toughen when they lose water. Since high relative humidity (RH) is required for kohlrabi, the vegetable must be under close supervision in storage because high RH also encourages the development of disease if the temperature of the kohlrabi exceeds 35°F (1.7°C). Topped kohlrabi has been successfully stored in a controlled atmosphere (CA) at 3% O₂ plus 5% CO₂ for 4 months at 32°F (0°C).

Hydrocooling is the best method for cooling kohlrabi, but it is recommended that chlorine be maintained in the water at 50 ppm and the pH adjusted to 7 in order to prevent the spread of bacteria that can cause decay. Package icing and forced-air cooling are also suitable. Potable water should be used for making ice. Kohlrabi without leaves should be cooled to below 40°F (4.4°C) within 1 day after harvest and kohlrabi with leaves should be cooled within several hours after harvest; both types should be stored at 32°F (0°C) with at least 95% RH. Packaging in perforated film can aid in maintaining the required high moisture

Kohlrabi

storage environment. Lower humidity can cause shriveling and toughening. Topped kohlrabi can be packaged in perforated polyethylene bags and kept about 2 to 3 months at 32°F (0°C). Kohlrabi with leaves can be kept only about 2 to 4 weeks at 32°F (0°C).

Diseases and Injuries

Bacterial Soft Rot	<p>First seen as water soaked or greasy spots. Often follows bruises, cracks or other injuries. In later stages, infected areas turn brown to black, often with a foul odor. Disease spreads rapidly in warm, humid weather.</p> <p>Control: Care in handling to avoid cuts, bruises and other injuries. Store at 32 to 33°F (0 to 0.6°C), not above 35°F (2.2°C) and avoid freezing temperatures. Aeration to increase drying of infected areas may partially prevent spread of decay.</p>
Black Rot	<p>Field disease characterized by darkening of vascular elements forming black network of leaves. Yellowing and brown-black spots may occur at margins of leaves during early stages. Bacterial soft rot may rapidly invade infected tissue.</p> <p>Control: Little storage operator can do after harvest other than careful grading to remove infected items. Unlike bacterial soft rot, black rot does not spread or develop appreciably in storage under refrigeration. Control of black rot relies on a comprehensive program to prevent or eliminate the spread of bacteria from season to season, and the use of disease-free seed.</p>

WFLO is indebted to Dr. Jeff Brecht, Horticultural Sciences Department, University of Florida, for the review and revision of this topic.