

- [search](#) is the most efficient way to navigate the Engineering ToolBox.

Fruits and Vegetables Optimal Storage Conditions

Optimal temperature and humidity conditions for some common fruits and vegetables

Proper storage conditions - temperature and humidity - are required to maximize storage life and maintain quality of harvested fruits and vegetables.

Fresh fruit need low temperature and high relative humidity to reduce the respiration and slow down the metabolic processes. The table below indicates optimal temperatures and moisture conditions for some common fruits and vegetables.

Product	Optimal Storage Temperature (°F) (deg C)	Chill Point (°F) (deg C)	Freezing Point (°F) (deg C)	Optimal Humidity %	Top Ice Accepted 1)	Water Sprinkle Accepted 2)	Ethylene Production	Sensitive to Ethylene ³⁾	Approximate Storage Life	Comments
Apples	30 - 40		29.3	90-95	No	No	High	Yes	1-12 months	Chill sensitive stored at 35-40 F (2-4 C)
Apricots	31 - 32		30.1	90-95	No	No	High	Yes	1-3 weeks	
Artichokes	32 - 35			90-95	Yes	Yes	No	No		
Artichokes, Jerusalem	31 - 32		28.0	90-95	No	No	No	No	4-5 months	
Asparagus	32 - 35		30.9	95-100	No	Yes	No	Yes	2-3 weeks	
Avocados, ripe	38 - 45	36		85-95	No	No	High	Yes		
Avocados, unripe	45 - 50	45		85-95	No	No	Low	Yes, Very		Keep away from ethylene producing fruits
Bananas, green	62 - 70	56		85-95	No	No	Low	Yes		
Bananas, ripe	56 - 60	54		85-95	No	No	Medium	No		
Basil	52 - 59	50		90-95	No	Yes	No	Yes		
Beans, dry	40 - 50			40-50					6-10 months	
Beans, green or snap	40 - 45		30.7	95					7-10 days	
Beans, sprouts	32			95-100					7-9 days	
Beans, Lima	37 - 41		31.0	95					5-7 days	
Beets	32 - 35			90-95	Yes	Yes	No	Yes		
Beets, bunched	32		31.3	98-100					10-14 days	
Beets, topped	32		30.3	98-100					4-6 months	
Blackberries	32 - 33		30.5	90-95	No	No	Very Low	No	2-3 days	
Blueberries	32 - 35			90-95	No	No	Very Low	No		

Product	Optimal Storage Temperature (°F) (deg C)	Chill Point (°F) (deg C)	Freezing Point (°F) (deg C)	Optimal Humidity %	Top Ice Accepted 1)	Water Sprinkle Accepted 2)	Ethylene Production	Sensitive to Ethylene ³⁾	Approximate Storage Life	Comments
Bok Choy	32 - 35			90-95	No	Yes	No	Yes		
Broccoli	32		30.9	95-100	Yes	Yes	No	Yes	10-14 days	
Brussels Sprouts	32		30.5	90-95	Yes	Yes	No	Yes	3-5 weeks	
Bunched Greens	32			90-95	Yes	Yes	No	Yes		Beets, Chard, Green Onions, Mustard, Parsley, Radish, Spinach, Turnip
Cabbage, Chinese	32			95-100	No	No	No	Yes	2-3 months	
Cabbage, early	32		30.4	98-100	Yes	Yes	No	Yes	3-6 weeks	
Cabbage, late	32		30.4	98-100					5-6 months	
Cantaloupe	36 - 38	34		90-95	No	No	Medium	Yes		
Carrots, bunched	32			95-100	Yes	Yes	No	Yes	2 weeks	Ethylene may cause a bitter flavor
Carrots, immature	32		29.5	98-100					4-6 weeks	
Carrots, mature	32		29.5	98-100					7-9 months	
Cauliflower	32		30.6	95-98					3-4 weeks	
Cauliflower	32 - 35			90-95	No	No	No	Yes		
Celeriac	32		30.3	97-99					6-8 months	
Celery	32		31.1	98-100	Yes	Yes	No	Yes	2-3 months	
Chard	32			95-100					10-14 days	
Cherries	32 - 35			90-95	No	No	Very Low	No		
Cherries, sour	32		29.0	90-95					3-7 days	
Cherries, sweet	30 - 31		28.8	90-95					2-3 weeks	
Chicory	32 - 35			90-95	Yes	Yes	No	No		
Chicory, witloof	32			95-100					2-4 weeks	
Chinese Pea Pods	32 - 35			90-95	No	No	No	No		
Coconuts	55 - 60			80-85	No	No	No	No		Extended storage 32-35 F (0-2 C)
Collards	32		30.6	95-100					10-14 days	
Corn, sweet	32		30.9	95-98	Yes	Yes	No	No	5-8 days	
Cranberries	38 - 42	36		90-95	Yes	No	No	No		
Cucumbers	50 - 55	40	31.1	95	No	No	Very Low	Yes	10-14 days	
Currants	31 - 32		30.2	90-95					1-4 weeks	
Eggplant	46 - 54	45	30.6	90-95	No	No	No	Yes	1 week	
Elderberries	31 - 32			90-95					1-2 weeks	
Endive	32		31.9	95-100	Yes	Yes	No	No	2-3 weeks	
Escarole	32 - 35			90-95	Yes	Yes	No	No		
Escarole	32		31.9	95-100					2-3 weeks	
Figs	32 - 35			90-95	No	No	Low	No		
Garlic	32		30.5	65-70	No	No	No	No	6-7 months	May be stored at 55-70 F (13-21 C) for shorter periods

Product	Optimal Storage Temperature (°F) (deg C)	Chill Point (°F) (deg C)	Freezing Point (°F) (deg C)	Optimal Humidity %	Top Ice Accepted 1)	Water Sprinkle Accepted 2)	Ethylene Production	Sensitive to Ethylene ³⁾	Approximate Storage Life	Comments
Ginger Root	60 - 65	55		65-70	No	No	No	No		
Gooseberries	31 - 32		30.0	90-95					3-4 weeks	
Grapefruit	55 - 60	50		90-95	No	No	Very Low	No		
Grapes	31 - 32		29.7	85	No	No	Very Low	Yes	2-8 weeks	
Green Beans	40 - 45	38		90-95	No	No	No	Yes		
Green Peas	32 - 35			90-95	No	No	No	Yes		
Greens, leafy	32			95-100					10-14 days	
Guavas	45 - 50	40		90-95	No	No	Medium	Yes		
Herbs	32 - 35			90-95	No	Yes	No	Yes		
Horseradish	30 - 32		28.7	98-100					10-12 months	
Jicama	55 - 65			65-70					1-2 months	
Kale	32		31.1	95-100					2-3 weeks	
Kiwi, ripe	32 - 35			90-95	No	No	High	Yes		
Kiwi, unripe	32 - 35			90-95	Ne	No	Low	Yes, Very		
Kohlrabi	32		30.2	98-100	Yes	Yes	No	No	2-3 months	
Leeks	32		30.7	95-100	Yes	Yes	No	Yes	2-3 months	
Lemons	52 - 55	50		90-95	No	No	Very Low	No		
Lettuce	32		31.7	98-100	No	Yes	No	Yes	2-3 weeks	
Limes	48 - 55	45		90-95	No	No	Very Low	No		
Lychees	40 - 45	36		90-95	No	No	Very Low	No		
Mangos	50 - 55	50		85-95	No	No	Medium	Yes		
Melons, Casaba/Persian	50 - 55	45		85-95	No	No	Very Low	Yes		Riper melons may be stored at 45-50 F (7-10 C)
Melons, Crenshaw	50 - 55	45		85-95	No	No	Low	Yes		Riper melons may be stored at 45-50 F (7-10 C)
Melons, Honey Dew	50 - 55	41		85-95	No	No	Medium	Yes		Riper melons may be stored at 45-50 F (7-10 C)
Mushrooms	32		30.4	95	No	Yes	No	Yes	3-4 days	
Napa	32 - 35			90-95	No	No	No	Yes		
Nectarines	31 - 32		30.4	90-95	No	No	High	No	2-4 weeks	
Okra	45 - 50	45	28.7	90-95	No	No	Very Low	Yes	7-10 days	
Onions	32 - 35			65-75	No	No	No	No		May be stored at 55-70 F (13-21 C) for shorter period
Oranges	40 - 45	38		90-95	No	No	Very Low	No		
Papayas	50 - 55	45		85-95	No	No	Medium	Yes		
Parsley	32		30.0	95-100					2-3 months	
Parsnips	32		30.4	98-100	Yes	Yes	No	Yes	4-6 months	
Peaches	31 - 32		30.3	90-95	No	No	High	Yes	2-4 weeks	
Pears	29 - 31		29.2	90-95	No	No	High	Yes	2-7 months	
Peas, green	32		30.9	95-98					1-2 weeks	
Peas, southern	40 - 41			95					6-8 days	

Product	Optimal Storage Temperature (°F) (deg C)	Chill Point (°F) (deg C)	Freezing Point (°F) (deg C)	Optimal Humidity %	Top Ice Accepted 1)	Water Sprinkle Accepted 2)	Ethylene Production	Sensitive to Ethylene ³⁾	Approximate Storage Life	Comments
Peppers, hot chili	32 - 50			60-70	No	No	No	Yes	6 months	
Peppers, sweet	45 - 55	42	30.7	90-95	No	No	No	No	2-3 weeks	
Persimmons	32 - 35			90-95	No	No	No	Yes, Very		
Pineapples	50 - 55	45		85-95	No	No	Very Low	No		Odor may influence avacados
Plums	31 - 32		30.5	90-95	No	No	High	Yes	2-5 weeks	
Pomegranates	41 - 50	41		90-95	No	No	No	No		
Potatoes	45 - 50	38		90-95	No	No	No	Yes		
Precut Fruit	32 - 36			90-95	No	No	Low	No		
Precut Vegetables	32 - 36			90-95	No	No	No	Yes		
Prunes	31 - 32		30.5	90-95	No	No	High	Yes	2-5 weeks	
Pumpkins	50 - 55	50	30.5	65-70	No	No	No	Yes	2-3 months	
Quinces	31 - 32		28.4	90					2-3 months	
Quinces	32 - 35			90-95	No	No	High	Yes		
Radishes, spring	32		30.7	95-100	Yes	Yes	No	Yes	3-4 weeks	
Radishes, winter	32			95-100					2-4 months	
Raspberries	31 - 32		30.0	90-95	No	No	Very Low	No	2-3 days	
Rhubarb	32		30.3	95-100	No	Yes	No	No	2-4 weeks	
Rutabagas	32		30.0	98-100	Yes	Yes	No	Yes	4-6 months	
Salad Mixes	32 - 35			90-95	No	Yes	No	Yes		
Salsify	32		30.0	95-98					2-4 months	
Spinach	32		31.5	95-100					10-14 days	
Sprouts	32 - 35			90-95	No	No	No	Yes		
Squashes, summer	41 - 50	40	31.1	95	No	No	No	Yes	1-2 weeks	
Squashes, winter	50		30.5	50-70	No	No	No	Yes	1-6 months	
Strawberries	32		30.6	90-95	No	No	Very Low	No	3-7 days	
Sweet Potatoes	55 - 60	54	29.7	85-90	No	No	No	Yes	4-7 months	
Tangerines	32 - 35			90-95	No	No	Very Low	No		
Tangerines	40 - 45	38		90-95	No	No	Very Low	No		
Tomatoes, mature green	55 - 70		31.0	90-95	No	No	Low	Yes	1-3 weeks	Ripening can be delayed by storing at 55-60 F (13-16 C)
Tomatoes, ripe	55 - 70		31.1	90-95	No	No	Medium	No	4-7 days	
Turnip greens	32		31.7	95-100					10-14 days	
Turnips	32		30.1	95	Yes	Yes	No	Yes	4-5 months	
Watercress	32		31.4	95-100					2-3 weeks	
Watermelon	55 - 70	50		85-95	No	No	No	Yes, Very		Keep away from ethylene producing fruits

- 1) Top icing the products may be very effective keeping the temperature low and the product surface close to *100%* humidity.
- 2) Spraying with water may be effective by keeping the temperature low ([evaporative cooling](#)) and the surface *100%* humid.
- 3) Products sensitive to ethylene should not be stored together with products producing ethylene. Exposure to ethylene may soften the flesh, adding bitter taste to the product or/and accelerate ripening.

Related Topics

- [Air Conditioning](#) - Air Conditioning systems - heating, cooling and dehumidification of indoor air for thermal comfort
- [Miscellaneous](#) - Engineering related topics like Beaufort Wind Scale, CE-marking, drawing standards and more

Related Documents

- [Energy in Food](#) - Energy in carbohydrates, fats and proteins
- [Food - Thermal Conductivity](#) - Thermal conductivity of selected foodstuff
- [Food and Foodstuff - pH Values](#) - pH in common food products - like apples, butter, wines and more ..
- [Food Products and Osmotic Pressure](#) - Osmotic pressure of food products
- [Food-borne Infections and Diseases](#) - Common bacteria and viruses found in food
- [Foodstuff - Thermal Diffusivity](#) - Thermal diffusivity of selected foodstuffs
- [Frozen Food Storage Life](#) - Practical storage life for some common frozen food products
- [Indoor Design Conditions - Summer and Winter](#) - Recommended indoor design conditions
- [Indoor Design Conditions for Industrial Products and Production Processes](#) - Recommended indoor temperature and humidity for some common industrial products and production processes
- [Moisture Content](#) - Content of moisture in products like wood - wet and dry basis
- [Pasteurization Time and Temperature](#) - Pasteurization methods, time and temperatures
- [Specific Heat of Food and Foodstuff](#) - Specific heat of common food and foodstuff like apples, bass, beef, pork and many more
- [Water Content in Food and other Products](#) - Water content before and after drying in food and other products cork, grain, soap, peat, wood and more

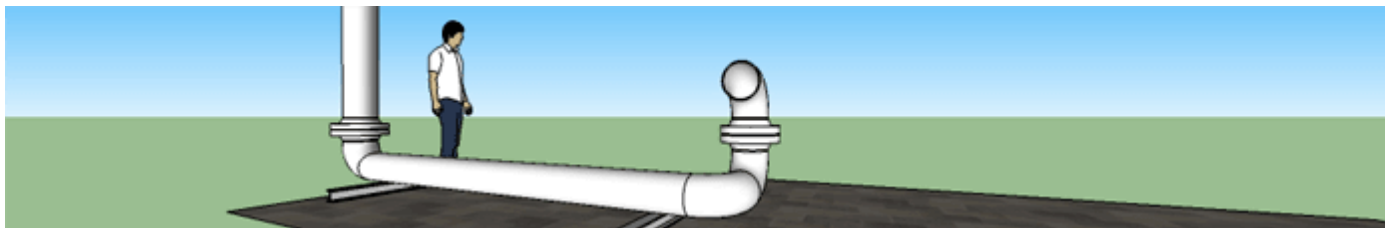
Tag Search

- [en: fruit vegetable storage conditions temperature humidity](#)
- [es: fruto legumbre humedad condiciones de almacenamiento de temperatura](#)
- [de: Fruchtgemüse Lagerbedingungen Temperatur Luftfeuchtigkeit](#)

Search the Engineering ToolBox



Engineering ToolBox - SketchUp Extension Online 3D modeling!



Add standard and customized parametric components - like flange beams, lumbers, piping, stairs and more - to your [Sketchup model](#) with the [Engineering ToolBox - SketchUp Extension](#) - enabled for use with the amazing, fun and free [SketchUp Make](#) and [SketchUp Pro](#). Add the Engineering ToolBox extension to your SketchUp from the [SketchUp Pro](#) Sketchup Extension Warehouse!

Translate this page to

[Arabic](#) - [Chinese \(Simplified\)](#) - [Chinese \(Traditional\)](#) - [Dutch](#) - [French](#) - [German](#) - [Italian](#) - [Japanese](#) - [Korean](#) - [Portuguese](#) - [Russian](#) - [Spanish](#) - - or select [Your own language](#)

About the ToolBox

We appreciate any comments and tips on how to make The Engineering ToolBox a better information source. Please contact us by email

- editor.engineeringtoolbox@gmail.com

if You find any faults, inaccuracies, or otherwise unacceptable information.

The content in The Engineering ToolBox is [copyrighted](#) but can be used with [NO WARRANTY or LIABILITY](#). Important information should always be double checked with alternative sources. All applicable national and local regulations and practices concerning this aspects must be strictly followed and adhered to.

Privacy

We don't collect information from our users. Only emails and answers are saved in our archive. Cookies are only used in the browser to improve user experience.

Some of our calculators and applications let you save application data to your local computer. These applications will - due to browser restrictions - send data between your browser and our server. We don't save this data.

Google use cookies for serving our ads and handling visitor statistics. Please read [Google Privacy & Terms](#) for more information about how you can control adserving and the information collected.

AddThis use cookies for handling links to social media. Please read [AddThis Privacy](#) for more information.

Advertise in the ToolBox

If you want to promote your products or services in the Engineering ToolBox - please use [Google Adwords](#). You can target the Engineering ToolBox by using [AdWords Managed Placements](#).

Citation

This page can be cited as

- Engineering ToolBox, (2004). *Fruits and Vegetables Optimal Storage Conditions*. [online] Available at: https://www.engineeringtoolbox.com/fruits-vegetables-storage-conditions-d_710.html [Accessed Day Mo. Year].

Modify access date.