

Storage of Fresh Produce

Storage temperature and shelf-life for each commodity. If a crop is stored at higher than ideal temperatures, the shelf-life will be reduced. Similarly, if a crop is stored at a lower than ideal temperature, freezing or chilling injury could compromise the shelf-life.

Table 1. Fruit and vegetable storage conditions and shelf-life.

Сгор	Ideal Storage Temperature (°F)	Shelf-Life at Ideal Storage Temperature	
Apples	30-40	1-12 months	
Asparagus	32-35	2-3 weeks	
Beans, Butter/Lima	37-41	5-7 days	
Beans, Snap	40-45	7-10 days	
Beets, Topped	32	4-6 months	
Blackberries	31-32	2-3 days	
Blueberries	31-32	1-2 weeks	
Boysenberries	31-32	2-3 days	
Broccoli	32	10-14 days	
Brussels sprouts	32	3-5 weeks	
Cabbage	32	3-6 weeks	
Cantaloupe	32-36	5-14 days	
Carrots, Mature	32	7-9 months	
Cauliflower	32	3-4 weeks	
Celery	32	2-3 months	
Cherries	30-31	2-3 weeks	
Collards	32	10-14 days	
Corn	32	5-8 days	
Cucumbers	50-55	10-14 days	
Eggplant	46-54	1 week	
Grapes	31-32	2-8 weeks	
Kale	32	2-3 weeks	
Lettuce	32	2-3 weeks	
Mustard	32	10-14 days	
Okra	45-50	7-10 days	
Onions, Green	32	3-4 weeks	
Onions, White	32	1-8 months	
Parsnips	32	4-6 months	
Peaches	31-32	2-4 weeks	
Pears	29-31	2-7 months	
Peas, English	32	1-2 weeks	
Peas, Southern	40-41	6-8 days	
Peppers, Bell	45-55	2-3 weeks	
Plums	31-32	2-5 weeks	
Potatoes, Irish	40	4-5 months	
Potatoes, Sweet	55-60	4-7 months	

Сгор	Ideal Storage Temperature (°F) Shelf-life at Ideal Storage Temperatu		
Pumpkins	50-55	2-3 months	
Radish	32	3-4 weeks	
Raspberries	31-32	2-3 days	
Rhubarb	32	2-4 weeks	
Rutabaga	32	4-6 months	
Spinach	32	10-14 days	
Squash, Summer	41-50	1-2 weeks	
Squash, Winter	50-55	2-6 months	
Strawberries	32	5-7 days	
Tomatoes, Ripe	46-50	4-7 days	
Tomatoes, Cherry	47-50	4-7 days	
Turnips	32	4-5 months	
Watermelon	50-60	2-3 weeks	

From Hardenburg et al., 1986. The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks. U.S. Department of Agriculture, Agriculture Handbook No. 66 (revised) 130 p.

At times, even when crops have the same ideal storage temperature, they should not be stored together. Some crops (mainly true fruits) produce high levels of ethylene, the ripening hormone. Ethylene can compromise the quality and reduce the shelf-life of crops by causing bitterness, softening, discoloration and stem detachment. Moreover, onions and peppers can impart off-flavors to apples and potatoes, if they are stored together. Commodities also differ in ideal relative humidity conditions. Most fruits and vegetables are composed of more than 80 percent water; therefore, the higher the relative humidity in the air surrounding the commodity during storage, the longer the shelf-life. The ideal relative humidity for the majority of fruits and vegetables is 90-95 percent; however, root crops, like onions and garlic, will be damaged and decay more quickly at high humidity and should be stored at 65-75 percent relative humidity, if possible. Table 2 shows crop storage compatibility.

Table 2. Storage compatibility.

Group 1. Temperature 32-36 °F, Relative Humidity 90-95%						
Apples*	Berries	Grapes	Pears*	Rutabagas		
Asian pears*	Cantaloupe*	Parsnips	Plums*	Turnips		
Beets, topped	Cherries	Peaches*	Radishes			
*These items can produce high levels of ethylene that can be detrimental to items in Group 2.						
Group 2. Temperature 32-36 °F, Relative Humidity 90-95%						
Beets, topped	Cabbage	Cherries	Greens	Radishes		
Berries	Carrots	Corn	Lettuce	Rhubarb		
Broccoli	Cauliflower	Grapes	Parsnips	Rutabagas		
Brussels sprouts	Celery	Onions, Green	Peas	Turnips		
Group 3. Temperature 32-36 °F, Relative Humidity 65-75%						
Garlic	Onions	Shallots				
Group 4. Temperature 50 °F, Relative Humidity 90-95%						
Beans ⁺	Eggplant	Peppers	Squash, Summer	Tomatoes, Ripe		
Cucumbers	Okra	Potatoes ⁺	Squash, Winter	Watermelon		
[†] Fifty degrees is slightly above ideal conditions for these commodities.						

Adapted from Boyhan et al., 2009. Postharvest Handling and Transportation of Fruits and Vegetables. The University of Georgia Cooperative Extension Fact Sheet 100. 4 p.

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