

Picking and Storing Apples and Pears

A given variety of apple or pear reaches harvest maturity at about the same period of time each year. In districts with cool growing seasons, fruit usually matures later than in the warmer districts. Within a district, the time of maturity varies slightly from season to season. In order of importance, then, variety, district, and season are the most important factors affecting the time of maturity.

Districts in Oregon are as follows: *Early*—Jackson County, Milton-Freewater, Wasco; *Midseason*—Lower Hood River, Malheur, Douglas County, and Josephine County; *Mid to late*—Willamette Valley; *Late*—high mountains and plateaus, coast. Early districts often begin harvest about 10 days earlier, and late-season districts about 10 days later than mid-season districts.

Apples

The usual period of maturity for apples in the mid-season districts is shown in the following table.

MATURITY DATES FOR APPLES

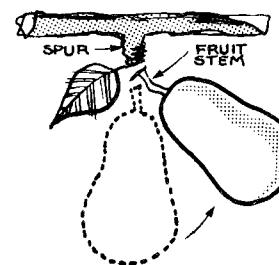
Variety	Dates	Skin color when mature
Yellow Transparent	July 10-25	Creamy yellow
Lodi	July 15-30	Creamy yellow
Melba	Aug. 5-20	Green with red blush
Beacon	Aug. 10-20	Yellowish green and red
Gravenstein	Aug. 20-25	Yellow and red
Tydemann's Red	Aug. 25-30	Red
Red Wealthy	Sept. 10-20	Yellow and red
McIntosh	Sept. 20-30	Yellow and red blush
King	Sept. 15-25	Yellow and red blush
Jonathan	Sept. 20-25	Yellow and red blush
Grimes Golden	Sept. 25-Oct. 5	Yellow
Golden Delicious	Oct. 1-15	Yellow
Spartan	Oct. 1-10	Red
Delicious—red strains	Oct. 1-15	Red
Spitzenburg	Oct. 5-20	Yellow and red stripes
Winter Banana	Oct. 5-20	Yellow
Melrose	Oct. 15-30	Red stripes
Winesap	Oct. 20-25	Red
Rome Beauty—red strains	Oct. 25-Nov. 10	Red
Ruby	Nov. 5-10	Red
Northern Spy	Nov. 5-15	Yellow and red stripes
Yellow Newtown	Nov. 10-20	Green

Other indicators for determining when to pick apples are color, ease of separation, fruit drop, and softness and flavor.

Color of apples, both outside and under the skin, is a useful indication of maturity. Apples may be yellow, red, green, or combinations of these colors at harvest. When the green has almost completely

given way to yellow, a yellow variety is mature. With red blush or striped apples, the area where there is no red color usually changes from green to yellowish at maturity. This does not help with the new strains, which are red all over long before maturity. The change of flesh color (between skin and core) from greenish to white signifies maturity. The greenish color of spur-type Red Delicious may disappear only after several months of storage.

Ease of separation. Unless a stop-drop spray has been applied, mature apples are rather easily separated from the tree. Do not pull the apple down, but twist it upward with a rotating motion.



Mature pears will usually detach when "tilted" to a horizontal position from their usual vertical hanging position. Bosc pears are always difficult to separate from the spur.

Dropping of sound fruit. When a few non-wormy apples drop to the ground, the apples on the tree are nearly mature.

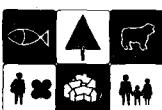
Softness and flavor are very useful guides to maturity. When an apple becomes slightly softer and tastes sweet and juicy, it is mature. Some varieties, such as Delicious, become sweeter in storage.

Pears

Unlike apples, most pear varieties do not ripen with good quality while still on the tree. Pears which are allowed to become too mature or to ripen on the tree develop a coarse, mealy texture and often have core breakdown.

MATURITY DATES FOR PEARS

Variety	Dates	Storage required before ripening
Clapp's Favorite	Early Aug.	None
Bartlett	August 10-20	None
Seckel	Late Aug., Sept.	None
Bosc	Early to mid-Sept.	None
D'Anjou	Early to mid-Sept.	2 months
Comice	Late Sept.	1 month
Packham's Triumph	Late Sept., Oct.	1 month
Forelle	Late Sept.	1 month
Winter Nellis	Early Oct.	1 month



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Maturity in pears is that stage of development when, if picked, the fruit will ripen satisfactorily following an appropriate period of cold storage if the variety requires it. Pears picked when slightly immature will ripen with better quality than pears over-mature when picked. As with apples, knowing the usual period of maturity is first in importance.

Color and size of fruit are other indicators for determining when to pick pears.

Color. With Bartlett, D'Anjou, Comice, and other yellow pear varieties, a slight change in skin color to a lighter shade of green occurs at maturity. The flesh becomes whiter and juice will appear on a cut surface.

Size of fruit is one indication of maturity. Pears except Seckel should be at least 2 inches in diameter at the widest portion of the fruit. Pick the largest fruit first, and leave the smaller ones for another week.

Picking, Storing, and Ripening

Do not shake the fruit from the tree. Segregate bruised and damaged fruit and use them rapidly as they are unfit for storage. Store only sound fruit.

Store apples and pears in clean wooden or cardboard boxes which are ventilated to allow air circulation. Do not line boxes with paper or individually wrap the fruit. An old but still serviceable refrigerator makes a good fruit storage. Ideally, storage temperature should be 30 to 32° F, but such conditions are difficult to achieve at home. An unheated garage, shed, or basement may be satisfactory if temperatures below 30° F and above 45° F can be avoided. An insulated box, storage cabinet, or dugout underground room which can be ventilated at night for cooling makes a good storage. Maintain high humidity in storage by placing the fruit in unsealed or perforated plastic bags or by dampening the floor or the boxes. Shriveling of Golden Delicious apples can be avoided by storing them in loosely tied plastic bags.

Store fruit immediately after it is picked. Do not store fruit with onions, potatoes, or other strong-smelling items, as the fruit will absorb flavor volatiles from them. Inspect regularly for mold, flesh breakdown, freezing, or excessive ripening. Storing ripe fruit with pears may cause the pears to ripen. Partly frozen pears often can be salvaged if thawed slowly, but freezing usually ruins apples. In commercial practice, pears are often wrapped individually in chemically treated paper to prevent scald. The wrapping is primarily cosmetic and is not necessary.

The storage life of apples and pears varies according to the variety and storage temperature. Pears held beyond their normal storage life will not ripen after removal from storage. Apples held too long will be soft and mealy and may have internal breakdown.

Some varieties of pear (Anjou, Comice) will not ripen unless they have been held 8 to 10 weeks in cold storage. If these varieties are exposed to

APPROXIMATE STORAGE LIFE OF APPLES AND PEARS

Variety	Days storage life at: 30-32° F	40-42° F
Pears		
Bartlett	30- 45	15- 20
Bosc	50- 70	30- 40
D'Anjou	120-140	70- 80
Comice	70- 90	45- 55
Winter Nellis	160-180	90-100
Apples		
Gravenstein	60- 80	40- 50
Tydeman's Red	60- 80	40- 50
McIntosh	*	60- 80
King	120-180	90-105
Golden Delicious	130-150	75- 85
Delicious—red strains	120-180	90-105
Rome Beauty—red strains	120-180	90-105
Yellow Newtown	120-180	90-105
Melrose	120-180	90-105

* Subject to cold temperature injury, hold at 38 to 42° F.

ethylene gas either as stove gas or as that given off by other ripe fruit, they will ripen without cold storage. Thus, one ripe pear or apple placed in a box of green pears will often start the ripening process.

Before pears are ready for consumption, they should be ripened. Remove the fruit from cold storage and place it in a room at a temperature of 60 to 70° F, with humidity fairly high for 3-10 days. D'Anjou pears are greenish-yellow when ripe. Other yellow varieties lose almost all of the green skin color during the ripening process.

For canning, pears should be soft enough so they can be dented with the thumb and still be slightly resilient. In this "firm-ripe" condition, they will peel easily. The flesh color of Bartlett pears should have changed from greenish to ivory white, but not yet to creamy yellow or dull. The flesh of other varieties may be still somewhat greenish.

Problems with pears

Handle pears carefully while picking and storing. Internal browning and soft spots, not evident from the outside, may be caused by bruising in handling or from ripening off the tree at temperatures above 70° F. Pears that become soft after canning were probably overripe. Pink color sometimes appears in canned fruit. More rapid cooling after canning will reduce the amount of this harmless coloration. Hard-end (a hardening and blackening of the end opposite the stem) occurs with fruit grown on certain rootstocks. Grittiness may be caused by the stony pit virus. Prevention of hard-end or grittiness requires replacing the tree. Fruits with stony pit virus or grittiness are not harmful if eaten.