Apple and Peach Varieties for Oklahoma

Becky Carroll
Senior Agriculturist

Of all the tree fruit crops grown in Oklahoma, a fresh tree-ripened peach or a crisp apple is hard to beat. Only with an excellent site selected and proper varieties chosen, can a grower have the potential for a profitable enterprise. Apples bloom later and are less susceptible to spring frosts than peaches, but with the proper site, peaches can be reasonably regular producers and are favored over apples by Oklahoma consumers.

Because peaches bloom in March, and Oklahoma frequently experiences freezing temperatures during this time and much later in some years, peach production can be risky. Site selection often is the key to success of an orchard. Planting the orchard on higher elevations with good air drainage is the most practical method to reduce damage from spring freezes. Cold air is heavier than warm air and will flow into nearby lower areas. Reducing the possibility of cold air being blocked in and backing up into the orchard requires keeping fence rows, tree rows and buildings away from these air drainage locations. Choosing cold-tolerant cultivars will also help.

Peach roots cannot tolerate extended periods of water-logging, so only well-drained soils should be chosen for a peach orchard.

Apples

There are several different rootstocks available for apples. There are three categories of apple rootstock; standard, semi-dwarf and dwarf. Seedling rootstocks are well adapted to Oklahoma, but not recommended because of the large tree size and delay in coming into production, compared to the clonal rootstocks. A seedling rootstock may produce a tree up to 30 feet tall. The most widely used rootstock for Oklahoma is a semi-dwarfing tree about ¾ the size of a standard tree. MM111 is cold hardy, drought tolerant, well-anchored and widely available. Trees on MM111 are semi-vigorous, being about 30 percent smaller than trees on seedling rootstocks. MM106 is an excellent semi-dwarfing rootstock, but lacks the drought tolerance of MM111, and it is very susceptible to collar and crown rot on imperfectly drained soils. These trees will produce smaller, earlier-bearing trees. MM106 does not perform as well on heavy clay soils. M9 is fully dwarfing (6 feet to 8 feet tall at maturity) and induces production at an early tree age, but requires staking or trellising to provide support. M27 shares the same good and bad points as M9 and is even more dwarfing. M7a is semi-dwarfing, but will require staking at least for the first few years, until the root system is established. Other fully dwarfing rootstocks to consider are M26 & B9. Interstem trees on MM111 understock have not been tested with conditions in Oklahoma, but may have promise. Because of the added propagation expense, these trees are more expensive. The M9 or M27 interstem provides an added degree of dwarfing, and the MM111 understock provides excellent anchorage and drought resistance. Interstem trees should be planted with the lower graft union belowground and the upper graft union aboveground. Single graft apple trees should be planted with the graft union 2 inches to 3 inches above the soil level.

Many of the apple cultivars are available in special strains, often patented by the various nurseries. These strains are "sports" or natural genetic mutants that differ from the original cultivar in small, but perceptible ways. The most common sports are for spur-type (increased tendency to produce spurs, which result in a 60 percent to 80 percent smaller tree, compared to a non-spur strain of that cultivar), increased red color (some 'Delicious' and 'Gala' strains) and decreased russetting (some 'Golden Delicious' strains).

Apples require cross-pollination to set a good crop consistently. Some cultivars will set some fruit by self-pollination, but the fruit quality, size and number of fruits will be increased by providing cross-pollination. Most crabapples can be used for cross-pollination, as long as the bloom period overlaps. A few apple cultivars are triploid (having three sets of chromosomes rather than the normal two) and do not produce good pollen. When planting a triploid cultivar, two additional cultivars will be necessary for pollination. The two additional cultivars will pollinate each other as well as the triploid. If only one additional cultivar was used, it would pollinate the triploid but would remain unpollinated Note: different strains of the same cultivar will not cross-pollinate each other.

There are many more apple varieties that may perform well in Oklahoma, but without proper variety testing, recommendations cannot be made with confidence. For homeowner production in central and northern Arkansas, the University of Arkansas recommends varieties such as William's Pride, Pristine, Enterprise and Gold Rush.

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http://osufacts.okstate.edu

Table 1. Recommended Apple Varieties for Oklahoma.

	Harvest Season (Central Oklahoma)	*Color*	*Use*	*Comments*
Gala	Aug 10-20	Orange-Red	D	High-colorsports preferred.
Jonathan	Aug 25 to Sept 10	Red	D,C	Very susceptible to fire-blight and cedar-apple rust.
Red Delicious	Sept 1-10	Red	D	Very upright growing needs branch spreading for good tree structure.
Golden Delicious	Sept 10-20	Yellow	D,C	Very well adapted. Smoothee tends to russet less.
Fuji	Oct 10-20	Reddish	D	Disease susceptible. Very sweet.

Use: C=cooking D=dessert

Peaches

The current recommended rootstocks for peach trees in Oklahoma are either 'Lovell,' 'Halford' or 'Guardian' seedlings. Peach trees should be planted at the same depth as they were in the nursery.

Bacterial Leaf Spot is a serious disease of peaches in Oklahoma, and can defoliate susceptible cultivars in wet rainy years. The only really effective control is to choose resistant or tolerant cultivars when planting the orchard.

Nectarines are peach cultivars that do not have fuzz. Most of the nectarine cultivars do not perform as well as the recommended peach cultivars.

All the peach and nectarine cultivars in this publication are self-fertile, and therefore do not require cross-pollination. The peach cultivars are grouped according to harvest time in weeks before and after 'Redhaven.'

The average ripening date of 'Redhaven' at the Cimarron Valley Research Station, Perkins, Oklahoma (central Oklahoma) is July 12-16. Depending on the season, 'Redhaven' will ripen 2 days to 5 days earlier in the southern areas of the state. Likewise, the ripening of 'Redhaven' can be delayed at locations north of Perkins, Oklahoma.

Many new peach varieties are available from the nurseries, including new white peaches released from Arkansas that tout better disease resistance and shipping capabilities. White County, White River, & White Rock are three University of Arkansas releases that have not been tested at OSU. Other Arkansas recommendations include Bellaire & Contender.

Table 2. Recommended Peach Cultivars.

Weeks before or after *'Redhaven'*	*Cultivars*	Weeks before or after *'Redhaven'*	*Cultivars*
Yellow Fleshed		**White Fleshed**	
- 2	Candor	- 1	Erly-red-fre
- 1	Garnet Beauty, Sweethaven, Earliglo, Rubired	+1	Summer Pearl
		+2	Nectar
		+6	White Hale
- 0.5	Sentinel		
0	Redhaven, Clayton, Cullinan		Nectarines
		0	Earliblaze
+0.5	Newhaven	+2	Redchief
+1	Ranger	+3	Cavalier
+2	Glohaven, Bounty	+4	Sunglo
+3	Jayhaven, Loring	+5	Redgold
+4	Cresthaven, Biscoe, Jefferson		
+5	Autumnglo		
+6	Ouachita Gold		
+7	Stark Encore		
+8	Parade, Flameprince		
+9	Fairtime		

Table 3. Peach and Nectarine Summaries.

Cultivar	*Ripening Season*	*BLS Resistance*	*Flesh Color*	*Flesh Adherence*	*Fruit Quality*	*Fruit Size*	*Cold Tolerance*
Peaches							
Candor	-2	R	Y	SC	4	Good	Good
Earliglo	-1	T	Y	SF	3	Good	——
Garnet Beauty	-1	T	Y	SF	4	Good	Fair
Rubired	-1	R	Y	C	3	Fair	Good
Sweethaven	-1	R	Y	SF	4	Fair	Good
Erly-red-fre	-1	T	W	SF	3	Good	Fair
Sentinel	-0.5	R	Y	F	4	Good	Good
Clayton	0	R	Y	F	3	Good	Good
Cullinan	0	T	Y	F	4	Good	Fair
Redhaven	0	T	Y	F	4	Fair	Good
Newhaven	+0.5	R	Y	SF	3	Fair	Exc.
Ranger	+1	R	Y	F	5	Exc.	Good
Summer Pearl	+1	S	W	F	3	Good	Good
Glohaven	+2	R	Y	F	3	Exc.	Good
Bounty	+2	T	Y	F	4	Exc.	——
Nectar	+2	T	W	F	3	Exc.	Good
Jayhaven	+3	R	Y	F	4	Exc.	Good
Loring	+3	R	Y	F	5	Exc.	Fair
Biscoe	+4	R	Y	F	4	Good	Exc.
Cresthaven	+4	T	Y	F	4	Exc.	Good
Jefferson	+4	R	Y	F	4	Exc.	Fair
Autumnglo	+5	T	Y	F	4	Exc.	Exc.
Ouachita Gold	+6	T	Y	F	3	Exc.	Fair
White Hale	+6	T	W	F	3	Exc.	Fair
Stark Encore	+7	T	Y	F	5	Exc.	Good
Parade	+8	T	Y	F	4	Good	Good
Flameprince	+8	T	Y	F	4	Exc.	——
Fairtime	+9	T	Y	F	4	Good	Exc.
Nectarines							
Earliblaze	0	T	Y	SF	——	——	——
Redchief	+2	R	W	F	——	——	——
Cavalier	+3	T	Y	F	——	——	——
Sunglo	+4	T	Y	F	——	——	——
Redglo	+5	T	Y	F	——	——	——

Season: Weeks before or after 'Redhaven.'
BLS (Bacterial Leaf Spot): R=resistant (little or no defoliation), T=tolerant (some defoliation, but not severe), S=susceptible (requires spraying most years).
Flesh color: Y=yellow, W=white. Flesh adherence: C=cling, SC=semi-cling, SF=semi-free, F=free. Fruit Quality: 1=worst to 5=best. A rating of 3 is acceptable quality.

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