



Fruit & Nut Tree & Vine Pruning

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TYPE	FRUITING WOOD	PRUNING
ALMOND	<u>Spurs</u> that remain productive for about 5 years. (Lateral buds, 1-year shoots).	<u>Each dormant season</u> remove about 1/5 of the oldest fruiting wood to encourage the development of new spurs.
APPLE (& CRABAPPLE)	<u>Spurs</u> produce for Up to 20 years but weaken After about 3 years. (Terminal buds on 2-year spurs, lateral buds on 1-year shoot).	<u>Late dormant</u> : remove weak, dead or poorly Placed branches & twigs, especially those Growing toward center of tree (bearing heaviest when sun can reach middle). This will encourage development of strong new wood with new fruiting spurs. <u>Older trees</u> : selective thinning of branches to accomplish same goal. Thin fruit if you want larger sized fruit and to prevent branch breakage if heavy load. Can be trained as espalier.
APRICOTS	<u>Short spurs</u> that form on previous year's growth & remain fruitful for about 4 years. (Lateral buds on 1-year shoots and 2-year spurs).	Prune in summer rather than in dormant season to avoid Eutypa dieback. Moderation is the key to pruning. Prune to conserve enough new growth to produce adequate new fruiting spurs and to remove old, exhausted spurs. Thin excess fruit from branches leaving 2-4 inches between individual fruits.
AVOCADO	<u>Determinate</u> (along the branch) & <u>indeterminate</u> (at end of branch) floral shoots.	Most trees need little or no pruning. Whenever possible allow trees to develop naturally to avoid disturbing the balance between foliage and fruiting wood. Naturally grow irregularly but usually develop a better structure if not pruned at all. Avoid pruning late summer or fall (stimulates vegetative growth that is susceptible to frost injury). More erect types of avocados may be tipped repeatedly (pinching back terminal bud and repeat after growth flush) to develop bushier, more compact tree. Removing dead wood in coastal regions may reduce <i>Dothiorella</i> rot (causes fruit to decay when softening). Fruit thinning generally not needed unless excessive on certain branches, which may cause breakage. Young trees: fruit thinning is sometimes practical because very heavy crops can reduce tree vitality, but leaving fruit can also slow tree growth (sometimes beneficial).



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<p>BLACKBERRIES (INCLUDES TRAILING CULTIVARS BOYSEN, LOGAN, OLLALIE)</p>	<p><u>Primocanes</u> (First year's growth of shoot) are vegetative only, <u>Florishoots</u> (2nd year shoot) flower and fruit.</p>	<p><u>At planting (Dormant)</u>: Cut canes on newly set plants to 6 inches at planting time. <u>Trailing blackberries</u> (trained on trellis): require trellis system to support fruiting canes second year. <u>Erect blackberries</u> will grow without support, but trellises will keep planting neater and make harvesting easier. Little or no other pruning is required during the first year after planting. <u>Erect cultivars</u>: produce stiff, upright new canes (primocanes) from the crown that arch over after they grow about 5 to 6 feet long. During the summer of the 2nd growing season, when the primocanes are approximately 3 feet long, pinch off the top 1 to 2 inches. These canes will branch and produce fruit the next year. Alternatively, canes can be left unheaded and wrapped around the wires for fruiting the next year. Immediately after harvest until midwinter, remove the floricanes, which will eventually die anyway. Thin primocanes to 3 or 4 of the strongest canes per plant. <u>Trailing cultivars</u>: In the spring trailing cultivars produce primocanes that grow along the ground. Keep these trained in a narrow row beneath the bearing canes to prevent injury. After harvest, remove the floricanes. Thin the primocanes, leaving 6 to 12 of the sturdiest canes on each plant</p>



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		<p>to bear next season. Wrap the primocanes around the trellis right after harvest and subsequent removal of floricanes. Wrap one or 2 canes at a time in a spiral around the wires of the trellis, working each way from the plant. Top the primocanes of trailing berries if they grow beyond 10 feet long.</p>
<p>BLUEBERRIES</p>	<p>1-year old wood, at the tip of last year's growth.</p>	<p><u>At planting time (Dormant)</u>: prune all branches back by about 30% to encourage vigorous new growth. Young plants: require little pruning for first 2 to 3 years. Remove only dead or dying parts of branches and less vigorous, spindly growth. <u>First 3 years</u>: blueberries usually thinned of all fruit by removing the blossoms during bloom. After 3rd year: prune annually when dormant. Cut out any dead, damaged or diseased wood. Keep bush open by removing basal shoots that tend to crowd the inside of the plant or shoots that are smaller in diameter than a lead pencil. Leave larger shoots to develop into next year's fruiting wood. Cut out older wood (4 or 5 years old) with small, weak lateral branches and few fruit buds. Cut these canes back to the ground or to a strong, new side shoot. Limit the number of canes to one for each year of age of the plant, or a maximum of 6 to 8 canes for old bushes. If you remove one or 2 canes yearly and one or 2 new canes are produced, not canes will be over 4 to 6 years old. Remove small sucker shoots growing from the base of the plant and weak, twiggy wood, especially from top of plant, to allow light to reach the center. If plants overbear, remove some of the weakest 1-year old wood, and if necessary, tip back some of the remaining 1-year old wood. Then cut off about 1/3 of the flower buds, which can be distinguished from vegetative buds by their fatter, less pointed appearance. Flower buds appear at the tip of last year's growth.</p>



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CHERRIES	<u>Spurs</u> , long-lived, do not need to be renewed by pruning. (Lateral buds, 2-year spurs, lateral buds, 1-year shoots).	Prune only to maintain good structure and shape. Remove any mummified fruit and prune out and discard diseased twigs as soon as seen.
CITRUS	After winter or during dormancy flowers form on <u>older leafy stems</u> and the <u>vegetative apical meristem</u> is transformed into a terminal flower bud.	Commercial trees allowed to carry branches right to ground; production heaviest on lower branches. Growers prune only to remove twiggy growth and weak branches. <u>Young plants</u> : nip back wild growth and balance plant. <u>Home Gardens</u> : to shape as desired. Can be espaliered, but not very productive this way. In freeze-prone areas don't prune in fall or winter. Wait until spring to prune frost-damaged trees – new growth will make it clear which wood is really dead.
CURRANTS	Prune during dormancy	Upright bushes that tend to have crowded branches. Begin pruning third year after planting. Prune to have 9 main branches – <u>on red & white currants</u> 3 @ 1 year old, 3 @ 2 years old and 3 @ years old. <u>On black currants</u> : cut stems to ground that are older than 2 years old. Older canes are often dark and peeling.
FIG	(Home Garden): first crop early summer on <u>last year's wood</u> , second (more important) in late summer or early fall from <u>current year's growth</u> .	<u>Bare root whip</u> : cut back top hard at planting. <u>Mature</u> : As trees grow prune lightly each winter, cutting out dead wood, crossing branches and low hanging branches that interfere with traffic.
GRAPE	New shoots that develop from <u>spurs</u>	Decide on type of pruning system to use: <u>Spur</u> : short spur 2-3 buds for Cardinal, Exotic, Ribier, and Muscat of Alexandria. Long spurs (2-4 buds) for Concord, Golden Muscat, Catawba, Niagara. <u>Cane</u> for (Thompson Seedless, Black Monukka, Fantasy Seedless, Concord, Crimson Seedless). Keep a total of 20 – 40 buds on mature vines. Types of spur/cane pruning : a. Spur on head-trained vine, b. Spur on cordon-trained vine, c. Head-trained vine with cane pruning. <u>After planting barefoot shoot in Jan/Feb</u> : Trim off all broken or damaged roots just above point of injury. Cut off all canes except most vigorous one, and prune it back to 2 buds. Place



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		<p>the barefoot plant in the soil so that the buds left to grow are 4 inches above the soil surface. Let all shoots grow first season. Insert a 6-ft. stake near the plant and train new growth to it by loosely tying.</p> <p><u>End of First Growing Season: (dormant):</u> Best to wait until when growth just begins in spring before pruning so young growth will avoid damage from late spring frosts. Remove all shoots except most vigorous one. If first season growth was relatively weak, prune the shoot back to 2 buds (a 2-bud spur) & repeat previous directions. If first-season growth vigorous, tie single shoots to the stake or trellis without heading back.</p> <p><u>Second season: If plant growth weak:</u> Select a single vigorous shoot to become the trunk and train it up the stake the second season. Allow lateral shoots to develop but remove suckers from the base and lower lateral shoots.</p> <p><u>If growth was vigorous and a single shoot was selected at the start of the second season, train to trellis as follows:</u> poor vigor: If shoot trained up stake has not reached trellis wire, prune back to 2 buds and start process again. <u>Moderate vigor:</u> (shoots have made it to trellis wire without extending onto the wire or have only very weak growth on wire): Prune the vine back to wood that is at least the diameter of a pencil. If in frost-prone area delay pruning until growth has started. Select and train shoots on trellis the following spring.</p> <p><u>Vigorous vines:</u> (well developed trellis shoots and lateral shoots extending off the trellis wire). Thin the lateral shoots until they are 6 to 8 inches apart along the wire. Cut back the shoots to 1 or 2 buds. Shoots that develop from spurs will develop fruit and renewal wood for the following year. Watch for and remove all unwanted suckers and shoots until they are 6 to 8 inches along the wire early in season when are tender and can be rubbed off easily.</p> <p><u>Thinning fruit:</u> First & Second years: pinch off all fruit clusters to ensure healthy vine development. <u>Third years and beyond:</u> in late spring thin fruit clusters to one per shoot. Over-cropping can set back vines severely.</p>



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GUAVA (TROPICAL OR STRAWBERRY, <i>PSIDIUM</i> GUAJAVA OR <i>P. CATTIANUM</i>)		No special pruning, but shearing will sacrifice fruit. Can be trained to multi-trunk tree. Pruning after maximum fruiting (late fall) will conserve maximum fruit (fruit matures late summer into fall).
KIWI	1-year old <u>canes</u> (or older), <u>lateral buds</u> .	<u>Dormant</u> : prune for form and fruit production. Cut back to 1 or 2 main trunks and remove closely parallel or crossing branches. Cut out shoots that have fruited for 3 years and shorten longer shoots, leaving 3 to 7 buds beyond previous summer's fruit. <u>Summer</u> : shorten overlong shoots and unwind any shoots twiggling around main branches. Because male pollinator's sole purpose is flower production, you can prune it back drastically after bloom.
OLIVE	1-year <u>shoots</u> , <u>lateral buds</u>	<u>Young</u> : begin training early (single or multiple trunk). Heavy pruning will reduce fruit crop, but will withstand heavy pruning.
PEACH, NECTARINE	<u>1-year</u> old branches.	<u>Bare-root unbranched whip</u> : cut back to 2-3.5 feet above ground (the thicker the trunk the less severe the cutting back), new branches form below cut. After first year's growth, select three well-placed branches for scaffolds. <u>Mature trees</u> : in each dormant season cut off 2/3 of previous year's growth by removing every three branches formed that year, or head back each branch to 1/3 its length, or head back some and cut out others. Severe annual pruning not only renews fruiting wood, it encourages fruiting throughout the entire tree rather than at the ends of sagging branches that easily break. Can be trained as espalier. Genetic dwarfs need less pruning than regular trees. Fruit thinning: even with good pruning will form too much fruit. When fruits are 1 in. wide, <u>thin</u> out to 8 -10 inches apart.



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PEAR-ASIAN & EUROPEAN	Knobby <u>spurs</u> that remain productive for up to 5 years. (Terminal buds, 2-year spurs)	<u>Young</u> : establish good framework of main branches. <u>Mature</u> : Prune lightly during dormant season to keep good form & eliminate crowding branches. Usually trained to vase shape. Thinning fruit usually not necessary. Can be trained as espalier.
PERSIMMON	<u>New growth</u> , leaf axils	<u>Young</u> : prune to establish good framework. <u>Mature</u> : Thereafter prune only to remove dead wood, shape the tree or open up a too-dense interior.
PLUM-EUROPEAN (ALSO PRUNE)	<u>New growth</u> . (Lateral buds, 1-year shoots & 2-year <u>spurs</u>).	Do not branch as freely as Japanese plums, so selection of framework branches is limited, usually trained to a central leader. <u>Mature</u> : thin out annual shoot growth, otherwise little is needed. Can be espaliered.
PLUM-JAPANESE	<u>New growth</u> . (Lateral buds, 1-year shoots & 2-year <u>spurs</u>).	Require heavy annual pruning to ensure fruit set and healthy growth throughout tree. Usually trained to vase shape with 5-6 main scaffold branches, fruiting laterals grow from these scaffolds. Tend to make tremendous shoot growth, and rather severe pruning is necessary at all ages, regardless of training method. Many varieties produce excessive vertical growth; shorten these shoots to outside branchlets. Can be espaliered.
POMEGRANATE	Branch tips	Nothing specific mentioned. Grows naturally as rounded shrub/small tree to 15 – 20 feet tall and broad. Harvest fruit before first fall rains or fruit will crack.
QUINCE	New growth	Little pruning required beyond initial shaping and periodic thinning to keep plant's center open to light.



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<p>RASPBERRIES</p>	<p><u>Summer bearing</u> (most common): produce biennial primocanes that grow one year and develop into floricanes that bear fruit the 2nd year. Fall bearing: produce canes that bear fruit on the top portion of the current season's growth in late summer and fall.</p>	<p><u>At planting (dormant):</u> cut canes to 6 inches long. Summer bearing cultivars: <u>After harvest</u> remove all floricanes on which fruit was born (they will die soon anyway). Do not tip or pinch the primocanes. In dormant season removal all weak, broken and disease and insect damaged canes. In hill system leave 10 to 12 of the strongest canes in each hill. In hedgerow system: narrow the row to 15 inches wide and thin to about 4 to 5 strong canes per foot or row. <u>Again in dormant season,</u> shorten remaining canes in both planting systems to about 5 feet. Tie canes to trellis system if necessary. <u>Fall-bearing cultivars:</u> Grown for fall crop only. Cut all canes to ground level when plants are dormant, usually in early spring before growth begins. When new primocanes emerge, maintain a row width of 12 to 15 inches by removing suckers that grow outside this row. These canes will develop a crop in the fall on the tips of the primocanes. If an early summer crop from these same canes is desired, they can be left to overwinter and will fruit the following spring on the lower portion of canes that did not fruit the previous year. In dormant season remove weak or damaged canes and the tips that fruited last fall. Again, thin to 4 to 5 strong canes evenly spaced per foot or row. <u>Black & Purple raspberries:</u> Tip primocanes by removing 3 to 4 inches of new growth during late spring or early summer. Top black caps to a height of 2 feet, and purples to 2.5 feet. Topping usually needs to be done 2 or 3 times during the summer. Primocanes produce many laterals. <u>During dormant season</u> remove all damaged canes and all those less than ½ inch in diameter. Shorten lateral branches to 8 to 10 inches for black caps and 12 to 14 inches for purple cultivars. Cut unbranched canes to 1.5 to 3 feet. After harvest the following summer, cut all floricanes to the ground.</p>



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STRAWBERRIES	Fruit forms on <u>central mother plant as well as on runners</u> (daughter plants). Mother plant fruit is most desirable and runners (and their fruit) should be discouraged.	Trim off all runners as they develop (runners weaken the mother plant and reduce fruit size). <u>Spring-planted day neutral cultivars</u> : remove the first flowers that appear after planting to keep them from setting fruit and weakening the plant. Subsequent flowers can be left on for fruiting.
WALNUT	Current year shoots, terminals.	<u>Young</u> : train to central leader. <u>Mature</u> : need only pruning to remove dead wood or correct shape.

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