

Fruit and Nut Tree Care and Maintenance

WINTER DORMANT SEASON	SPRING BLOOM SEASON	SUMMER GROWING SEASON	FALL HARVEST SEASON
Almond			
<p>Prune trees in Dec/Jan. Remove dead, diseased, drooping branches. Remove and destroy all old nuts on trees and on ground to reduce overwintering navel orangeworm. Spray trees with dormant oil to kill peach twig borer, San Jose scale, and mite eggs. Include a fixed copper with the oil spray to control almond scab and reduce shothole fungus.</p>	<p>Be prepared to frost protect by running a rotating sprinkler under the tree if temperatures are forecast to drop below 30oF. Just prior to first irrigation, fertilize mature trees with 2 lbs. urea and water in. Young trees: use small, frequent doses of Nitrogen associated with irrigation throughout the growing season. Starting 2 weeks after winter rains end, drip-irrigate every other day to meet tree needs, or sprinkler-irrigate once a week applying 1.5 inches of water per irrigation. Trees growing in shallow or sandy soils need more frequent watering.</p>	<p>Continue irrigating as during spring season but increase duration or frequency. Drip-irrigate daily to meet tree needs, or sprinkler-irrigate once a week applying 2 inches of water per irrigation. Fertilize mature trees again at same rate as in spring but prior to the last irrigation before harvest. Water in the nitrogen application.</p>	<p>Nuts are ready for harvest when hulls split and shell is dry and brown. Shake or knock nuts from the tree with poles. Separate hulls from nuts and discard. Nuts can be stored in-shell or shelled out. Freeze in-shell nuts for 1 to 2 weeks to kill resident worms. Store in plastic bags or sealed plastic buckets to prevent re-infestation. Store shelled nuts frozen in plastic bags. Apply zinc sulfate spray in November to hasten leaf drop and prevent zinc deficiency. Irrigate through September.</p>
Apple			
<p>Spray trees with dormant oil to control San Jose scale, aphid and mite eggs. Prune 15 to 20% of last year's growth to let light penetrate to keep lower fruit wood alive. Remove diseased or broken limbs. Especially watch for and remove fire blight affected limbs.</p>	<p>Spray trees with a fungicide to control apple scab and powdery mildew at green tip stage, pink bud stage, and at 10-day intervals thereafter until rain stops. Thin apples by hand within 30 to 69 days after full bloom to about 1 apple per 6 inches of shoot growth. For mature trees, apply 2 lbs. urea. If organic manure or compost is used apply 40 lbs. in late winter/early spring, spread and work into the soil surface around the tree. Once trees leaf out, begin irrigation 2 weeks after winter rain ends and fertilize prior to first irrigation.</p>	<p>Fertilize young trees monthly (through July) apply prior to irrigations. Use 8 oz. urea per tree. With drip irrigation, do not exceed 1 oz. urea/emitter per application. Spray (May 1 to Sept. 1) to control codling moth worms; time sprays to visual ID of new worm holes in fruit. Control aphids if damage exceeds 50% of leaves crinkled and aphids are present. Control mites if damage is severe. Drip-irrigate daily to meet tree needs, or, sprinkler-irrigate once a week applying 2 inches of water per irrigation.</p>	<p>Continue irrigating until late October; fertilize mature trees lightly in September. At leaf fall, remove and destroy or compost leaves to prevent the spread of apple scab. Control weeds throughout the season with a mulch layer. Harvest from July to November, depending on variety and fruit taste.</p>

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Apricot			
<p>Spray trees with dormant oil to control San Jose scale, aphid eggs, mite eggs, and peach twig borer. Do not use sulfur on apricots; combine fixed copper with dormant oil to reduce shot hole fungus.</p>	<p>Spray to control brown rot and shot hole fungus as blooms start to open. Sprays may be required at 10- to 14-day intervals if weather is rainy. Fertilize mature trees with 1 to 2 lbs. of urea and then water in. Thin fruits to about 4 to 6 inches apart when 1/2 to 5/8 inch in diameter. Paint trunks with 50-50 mix of white interior latex paint and water to prevent sunburn and borer infestation. Starting 2 weeks after winter rains end, drip-irrigate every other day to meet tree needs, or, sprinkler-irrigate once a week applying 1.5 inches of water per irrigation.</p>	<p>Continue irrigation schedule, drip-irrigate daily to meet tree needs, or, sprinkler-irrigate once a week applying 2 inches of water per irrigation. Once growth begins, fertilize young trees monthly (through August) at 4 oz. urea/month to encourage vigorous growth. Apricots mature early. Harvest in June-July when fruit begin to color and soften.</p>	<p>Prune trees before onset of winter rains to prevent Eutypa fungus infection of pruning wounds. Remove about 20% of last year's growth to let light into tree. Remove old, broken, or diseased branches. Spray trees during or after leaf fall but before onset of winter rains to control shot hole fungus. Do not use sulfur on apricots; use fixed copper.</p>
Cherry			
<p>Spray with dormant oil to control San Jose scale if present. Prune to control height on mature trees, make thinning cuts to open center to let light in. Remove broken or diseased branches. Cherries may do better against bacterial canker (gummosis) if fixed copper is combined with the dormant oil spray.</p>	<p>Apply fungicide to control brown rot at popcorn and full bloom stages. Fertilize mature trees with about 2 lbs. urea or 70 lbs. of manure. Fertilize just before a spring rain or follow the application with irrigation. Once trees leaf out, starting 2 weeks after winter rains end, drip-irrigate every other day to meet tree needs, or, sprinkler-irrigate once a week applying 1.5 inches of water per irrigation.</p>	<p>Irrigate to maintain good tree vigor through summer heat. Drip-irrigate daily to meet tree needs, or, sprinkler-irrigate once a week applying 2 inches of water per irrigation. Cherries mature early. Cover trees with netting to control bird damage to fruit. Harvest in June when fruit is soft and sweet. After harvest, fertilize mature trees with 2 lbs. urea and water in immediately.</p>	<p>Drip-irrigate every other day to match daily use until winter rains take over. Sprinkler-irrigate every 1 to 2 weeks to wet soil in the root zone but stop September 15th to prevent root rot.</p>



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Olive			
<p>Spray with fixed copper to prevent peacock spot and reduce olive knot, especially in wet years. For oil varieties apply immediately after harvest.</p>	<p>Prune trees during bloom after spring rain ends. To reduce alternate bearing, remove more shoots from trees with heavy bloom and skip trees with light bloom. Fertilize mature trees with 2 lbs. of urea or 50 lbs. of compost. Starting after winter rains end, drip-irrigate to meet tree needs, or sprinkler-irrigate once a week applying 1.5 inches of water per irrigation. Be sure to prevent water stress during bloom.</p>	<p>Control weeds with mulch or cultivation, especially on young trees. Fertilize young trees with 1 oz. of urea under each drip emitter every month and irrigate in. If sprinkler-irrigating young trees, fertilize with 1/2 lb. of urea just prior to irrigation twice during summer. Apply drip irrigation every day according to water use requirements. If sprinkler irrigating, apply 2 inches of water once a week.</p>	<p>Harvest table olives when fruit is green, just prior to developing a straw yellow color. Harvest oil olives when fruit turns yellow to reddish purple on the outside, but flesh is still green/yellow. If weather is dry, continue irrigation until harvest; do not allow fruit to shrivel. Apply fixed copper to prevent peacock spot and reduce olive knot before first major fall rains. Wash copper off fruit prior to processing or apply after harvest.</p>
Peach and nectarine			
<p>If present, spray trees with dormant oil to control San Jose scale. Spray fixed copper in late November and again in mid-January to prevent peach leaf curl fungus disease. Prune 50% of last year's wood to thin the crop and insure good shoot growth and fruiting potential for future years. Remove older wood that fruited last year and save the new reddish colored one-year-old shoots where bloom and fruiting will occur in the coming season.</p>	<p>Apply fungicide during bloom to prevent brown rot, which may require 1 to 2 sprays, depending on weather. Rainy periods require additional spray. Fertilize young trees monthly beginning March 1st. Use 0.5 lb. urea or 25 lbs. manure/tree per application. If drip irrigating, use 1 oz. of material applied under emitters every month. Do not exceed 1 oz. urea/emitter per month. Apply 1 lb. of urea to mature trees in late March. Water fertilizer in. Thin fruits to about 6 inches apart when marble-sized. Thinning reduces number of fruit, improves size and quality, and prevents limb breakage. Begin irrigation 2 weeks after spring rain ends.</p>	<p>Continue to fertilize young trees monthly (through August) at spring rates. Do not exceed 1 oz. urea/emitter/month. Apply 1 lb. of urea to mature trees in late June. Water fertilizer in. Drip-irrigate daily to meet tree needs, or, sprinkler-irrigate once a week applying 2 inches of water per irrigation. Maintain a weed-free area around trees within 3 feet of the trunk. When mulching 3 to 4 inches deep, keep mulch 6 inches away from tree trunks. Harvest as fruits color and soften but before they drop.</p>	<p>Spray fixed copper in late November to reduce shot hole fungus and to prevent peach leaf curl fungus disease. Continue to irrigate until fall rain begins but reduce frequency and duration. Remove fruit mummies from the tree to reduce brown rot fungus disease.</p>



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Pear			
<p>Spray trees with dormant oil to control San Jose scale, aphid eggs, mite eggs, and overwintering adult pear psylla. Prune 20% of last year's growth to let light in and thin out excessively vigorous water sprouts. Remove diseased (fire blight-ed) and broken limbs.</p>	<p>Spray trees with a fungicide to control pear scab at the green tip bloom stage, full bloom, and at 10-day intervals until rain stops. Thin pears to 6 inches apart if the crop is heavy. Fertilize prior to first irrigation. Apply 1.5 lbs. urea or 40 lbs. manure. Once trees leaf out, begin irrigating 2 weeks after spring rain ends.</p>	<p>Fertilize young trees monthly (through July) applying 8 oz. urea/tree prior to irrigation. Drip irrigation should not exceed 1 oz. urea/emitter per application. Time monthly codling moth sprays (May 1–Aug. 1) when first worm holes appear in fruit. Control aphids when present and damage exceeds 50% of leaves crinkled. Drip-irrigate daily, or, sprinkler-irrigate 2 inches every week.</p>	<p>Harvest by flavor and as fruit color and soften. Right after harvest, fertilize, and then continue to irrigate mature trees until rains begin. Clean up fallen fruit to reduce codling moth. At leaf fall, remove and destroy or compost leaves to prevent the spread of apple scab.</p>
Plum and prune			
<p>Spray trees with dormant oil to control San Jose scale, aphid eggs, and mite eggs. Prune 20% of last year's growth to let light in by thinning out excessively vigorous water sprouts. Remove diseased or broken limbs.</p>	<p>Spray trees with a fungicide to control brown rot as blossoms appear; 2 to 3 sprays may be needed if weather is rainy, cloudy. Fertilize mature trees with 1 to 2 lbs. urea or 20 to 40 lbs. manure/tree just prior to irrigation. Use lower rates for vigorous trees. Thin fruit to about 4 to 6 inches apart. If larger fruit is desired, leave fewer fruit. Control aphids if present and more than 50% of leaves are curled (severe damage). Starting 2 weeks after winter rains end, drip-irrigate every other day to meet tree needs, or, sprinkler-irrigate once a week applying 1 1/2 inches of water per irrigation.</p>	<p>Fertilize young trees monthly (through August). Use 4 oz. urea or 10 lbs. manure per application. Water in. Do not exceed 1 oz. urea/emitter per application. Drip-irrigate daily, or, sprinkler-irrigate once a week applying 2 inches of water per irrigation. Use mulch to maintain a weed-free area within 3 feet of the tree. Harvest when flavor is sweet, fruit colors, and begins to soften.</p>	<p>Fertilize mature trees just after harvest with 1 to 2 lbs. urea or 20 to 40 lbs. manure/tree. Continue to irrigate until fall rain begins but reduce frequency and duration.</p>

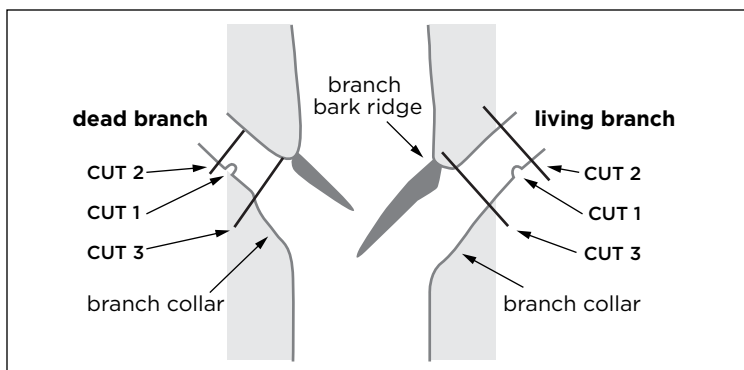


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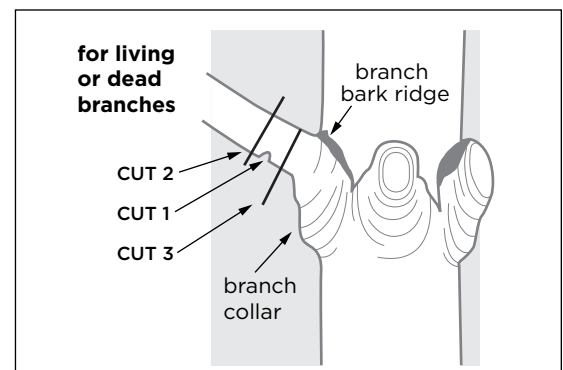
WINTER DORMANT SEASON	SPRING BLOOM SEASON	SUMMER GROWING SEASON	FALL HARVEST SEASON
Walnut			
<p>Prune trees by thinning out crowded areas to let light into the tree. Remove broken, dead and diseased branches and spurs. Remove and destroy any nuts left in the tree or on the ground to reduce overwintering worm populations.</p> <p>Plant late-blooming walnut varieties such as 'Chandler' to avoid walnut blight.</p>	<p>Walnut blight (a bacterial disease) appears as black spots on green hulls at the blossom end of nuts in May-June. Affected nuts will blacken and drop from the tree. Walnut blight is resistant to copper materials so homeowners' spray applications are ineffective. Walnut blight can continue until rainy weather stops. Keep the area around the tree trunk free of weeds to reduce competition and the chance of crown rot. Fertilize mature trees with 4 lbs. urea or 80 lbs. of manure. Once trees leaf out and winter rains end, drip-irrigate every other day to meet tree needs, or sprinkler-irrigate every two weeks applying 1.5 inches of water per irrigation.</p>	<p>Irrigate trees at the drip line but away from tree trunks. Keep the tree base dry to reduce crown rot problems. Sprinkler-irrigate with about 1.5 inches of water once a week, or drip-irrigate daily during June-September. Young, small trees need 4 to 12 gallons of water/day; large trees about 20 to 40 gallons/day. Walnut husk fly damage is cosmetic, blackening hulls and darkening kernels; sprays from about mid-July to mid-August are optional. Codling moth worms can also cause damage to walnut nuts. Spraying large walnut trees in a home setting is impractical; tolerate some damage.</p>	<p>Harvest nuts by shaking or poling the tree when green hulls begin to split and break away from the shell. Nuts are fully mature at this stage; typically in late September to early October. If left on the tree or allowed to drop naturally, worm damage to nuts will increase. Harvest as early as possible to preserve optimum quality. Hull the nuts and then freeze in-shell nuts to kill resident worms. Store in sealed plastic.</p>

How to Prune Trees

Hardwoods



Conifers



A. L. Shigo, *Tree Pruning: A Worldwide Photo Guide* (Durham, N.H.: Shigo and Trees Associates, 1989)

