



TREE NUTS

Product Use Overview



| California |

	Product	Key Problems / Uses	Product Benefits and Use Recommendations
Insecticides	Asana® XL Insecticide	Codling moth, leafrollers, navel orangeworm, peach twig borer, walnut aphid, walnut husk fly	Dormant treatment provides the best start for early-season pest control in orchards. Offers extended control with unique cottonseed oil formulation for proven, rainfast protection. Labeled rate range: 4.8–14.5 fl oz/A. REI: 12 hours. PHI: 21 days after treatment. Asana is a restricted use pesticide.
	Azera® Insecticide	Aphids, beetles, loopers, oriental fruit flies, pear psylla, thrips, weevils, worms	Controls insects by quick knock down, ingestion and insect growth regulation. Apply when target pest(s) populations are observed. Labeled rate range: 16–56 oz/A. REI: 12 hours. PHI: 0 days. 
	Belay® Insecticide	Aphids, hickory shuckworm, leafhoppers, lygus, mealybugs, pecan nut casebearer, pecan weevil, plant bugs (including leaf footed bug), stink bugs, walnut husk fly	Post-bloom spray for tree nuts (excluding pistachios). Labeled rate range: 3–6 fl oz/A. Use 6 fl oz/A for lygus, mealybugs, hickory shuckworms and stink bugs. Maximum 12 fl oz/A per season. Must not be applied during bloom or if bees are actively foraging. REI: 12 hours. PHI: 21 days.
	Danitol® 2.4 EC Spray	Fruitworms, leafrollers, navel orangeworm, peach twig borer, stink bugs	Controls many commonly occurring insect pests without flaring mites. Apply at threshold by airblast at a water volume that can ensure complete coverage. Labeled rate range: 10 ² / ₃ –21 ¹ / ₃ fl oz/A. REI: 24 hours. PHI: 3 days. Danitol is a restricted use pesticide.
	DiPel® DF Biological Insecticide Dry Flowable	Armyworms, codling moth, fall webworm, leafrollers, peach twig borer, red humped caterpillar, walnut caterpillar	Labeled rate range: 0.5–2 lb/A. For peach twig borer, apply when 20–40% of over-wintering larvae have emerged. Apply again at 80–100% emergence. <i>DiPel</i> can be tank mixed with fungicides. Use in combination or rotation with other insecticide chemistries for superior control. REI: 4 hours. PHI: 0 days. 
	Esteem® Ant Bait	Ants (pavement, fire ants)	Apply 1.5–2 lb/A when ants are foraging six to eight weeks before almond harvest. <i>Esteem</i> Ant Bait can also be applied following harvest to provide additional management of protein-feeding ants. REI: 12 hours. PHI: 24 hours.
	PyGanic® Crop Protection EC 1.4_{II} / 5.0_{II}	Aphids, leafhoppers, leafrollers, lygus, mites, pear psylla, thrips, whiteflies, worms	Controls a broad spectrum of insects. <i>PyGanic</i> 1.4 _{II} : 16–64 fl oz/A. <i>PyGanic</i> 5.0 _{II} : 4.5–17 fl oz/A. REI: 12 hours. PHI: 0 days. 
	Seize™ 35 WP Insect Growth Regulator	Peach twig borer (suppression), scales (including San Jose scale and black scale)	Highly effective insect growth regulator. Apply at dormant, delayed dormant or in-season. Use with spray oil at dormant, delayed dormant timings. One application per season max. Labeled rate range: 4–5 oz/A. REI: 12 hours. PHI: 21 days.
	XenTari® Biological Insecticide Dry Flowable	Armyworms, codling moth, fall webworm, leafrollers, red humped caterpillar, twig borer, walnut caterpillar	Treat when larvae are young (early instars) before crop is damaged. Labeled rate range: 0.5–2 lb/A. REI: 4 hours. PHI: 0 days. 
	Zeal® Miticide¹	European and Pacific red mites, spider mites (including two-spotted spider mite)	Long-lasting mite control with translaminar and ovicidal features. One application per season. <i>Zeal</i> is a mite growth regulator that affects all mite life stages, including eggs. Flexible application window during the growing season: preventive, threshold or hull split for almonds. Labeled rate: 3 oz/A per season. Only one application per season. REI: 12 hours. PHI: 28 days.



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Nematicide	DiTera® DF Biological Nematicide	Nematodes	Protects roots from nematode damage. Labeled broadcast rate range: 0.31–2.4 lb/A 1,000 sq ft (13.5–104.5 lb/A). Apply after harvest and at spring root flush for best results. REI: 4 hours. 
	Fungicides	Actinovate® AG Biological Fungicide	Botrytis, brown rot, powdery mildew, walnut blight
Quash® Fungicide		Alternaria, anthracnose, Botryosphaeria panicle and shoot blight, Botrytis blossom, brown rot/blossom blight, hull rot, powdery mildew, rust, scab, shot hole	In almonds , apply 2.5 oz/A for shot hole, 3.5 oz/A for rust, powdery mildew and anthracnose, and 2.5–3.5 oz/A for brown rot/blossom blight, scab, Alternaria and hull rot. In pistachios , apply 4 oz/A for Botrytis blossom and shoot blight, Botryosphaeria panicle and shoot blight and Alternaria late blight. In walnuts , apply 3.5 oz/A for Botryosphaeria blight. Maximum of two sequential applications and no more than four applications per season. Maximum 14 fl oz/A per year. REI: 12 hours. PHI: 25 days.
Herbicides	Chateau® Herbicide SW	Annual ryegrass, filaree, fleabane, mallow, marestail and more than 90 tough annual broadleaf and grass weeds	Proven, broad spectrum, long-lasting preemergence herbicide. Farm-friendly and weather-ready. <i>Chateau</i> stays where you put it; won't leach or co-distillate; no photo-degradation; remains active until ¼-inch rainfall or irrigation releases its activity. Labeled rate: 12 oz/A per application. Maximum 24 oz per year. Use with a burndown herbicide if emerged weeds are present. In-season, apply 2–4 oz/A with burndown herbicides for added residual. Length of residual weed control is rate-dependent. Be sure to clean out sprayer thoroughly after each use. REI: 12 hours. PHI: 60 days.
	Select Max® Herbicide with Inside Technology™ (non-bearing)	Annual and perennial grasses	Superior postemergence for systemic grass control with outstanding crop safety. Non-bearing use only. Lower volatile organic compound (VOC) formulation than other clethodim formulations. NIS okay. Labeled rate range: 9–16 fl oz/A. REI: 24 hours. PHI: 1 year.
Plant Growth Regulator	ReTain® Plant Growth Regulator for California Soluble Powder	Nut set	ReTain extends the bloom viability and delays senescence of flowers, increasing the potential for pollination, and in turn, nut set. Almonds: Apply 1 pouch (333g)/A between 10% bloom and full bloom. Walnuts: Apply 1–2 pouches (333–666g)/A between 5–30% and 45–65% pistillate (female flower) bloom. REI: 12 hours.
Soil / Plant Health	MycosApply® EndoMaxx	Delivers root mass expansion, nutrient efficiency and water acquisition	Bare root—bare root spray or dip 5 grams/1,000 seedlings. Containerized nursery stock—preplant drench 8 grams/1,000 seedlings. Recently planted (1 year or less)—soil drench or targeted spray over root zone followed by irrigation or rainfall 10 grams/1,000 trees. Established trees (2–4 years)—banded or targeted spray over root zone followed by irrigation or rainfall 15 grams/1,000 trees. Established trees (5+ years)—banded or targeted spray over root zone followed by irrigation or rainfall 40 grams/1000 trees. 



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Asana and Danitol are restricted use pesticides.