Peach Tree Spray Program

Last Week in January – spray dormant oil
2nd week in February – spray dormant oil

February – March – for leaf curl spray a single application of Bordeaux mixture, fixed coppers or lime-sulfur. (Copper should not be sprayed in late spring and summer when leaves are present)

Early spring budswell - spray a copper material

Pink just before blossoms open - Apply a combination spray of fungicide and insecticide. Chlorothalonil and Permethrin.

Bloom - Do not apply insecticides.

When flower petals begin to drop – Apply a combination spray of fungicide and insecticide and repeat every 2 - 3-week intervals until 3 weeks before harvest. First two sprays after petal fall should contain Chlorothalanil. (Chlorothalanil cannot be used after shuck split, in addition, it can injure leaves.) The most serious insect pests on peaches occur immediately after bloom. A 3-week period beginning at petal fall is a critical time for insect control, and two applications at 10 – 14-day intervals with a pyrethroid insecticide (permethrin) is required. Captan plus sulfur plus insecticide is a great spray throughout the season. (Stop insecticide portion of spray 3 weeks before harvest)

3 weeks before harvest – If you have a problem with brown rot, spray myclobutanil every 5 to 7 days or spray propiconazole one time.

Pre -Harvest - If you have a problem with June Beetles or Japanese Beetles spray carbaryl. Do not apply less than 3-days before harvest.

First week of September control Peachtree borer – Spray a pyrethroid insecticide to the trunk of the tree from the first scaffold limb to the ground.

Late October to mid-November – spray a copper material and in early spring at budswell and again just before blossoms open will reduce bacterial spot and leaf curl.

Fungicides for disease control in the home orchard.

Pesticide	Rate (per 1 or 10 gallons of water)		Comments
Fungicide	1 gal	10 gal	A mix of captan and sulfur will control most tree fruit diseases. However, there are certain times that a substitute or an additional fungicide is recommended for control of a particular disease. These have been mentioned for the specific fruit crop. DO NOT mix captan and or sulfur with oil.
Captan 50% WP PLUS	1 tablespoon;	5 oz	
Sulfur 80-90% WP*	3 tablespoons	10 oz	

*Sulfur applied when temperatures are high (>85 F) may cause phytotoxicity.

Peach Spray Program

Table 3. Disease and Insect Management for Peach, Plum, and Nectarine Orchards

Time of Application	Pest Controlled	Material to Use[1]	Comments
Dormant: late fall to early spring before bud swell	Peach leaf curl Aphid, mite, scale	Chlorothalonil, copper Horticultural oil	Fungicide application is needed for peach leaf curl only if there is a history of this disease. Apply three times during the dormant season.
Delayed dormant: when buds swell	Aphid, mite, scale	Horticultural oil	Do not apply when temperatures are below 40°F or are predicted to fall below 40°F within 24 hours.
Pink: Just before blooms open	Black knot of plum Lesser peachtree borer, peachtree borer, plum curculio, Oriental fruit moth	Captan, chlorothalonil Malathion, permethrin, zeta-cypermethrin	Fungicides are needed for plum trees if black knot is a problem. Remove and destroy all signs of black knot during the dormant season. Treatment provides some control of leaffooted bug and stinkbugs. Permethrin can be used only on peaches.
Bloom	Do not apply insecticides during bloom to protect insect pollinators.	Do not apply insecticides during bloom to protect insect pollinators.	Do not apply insecticides during bloom to protect insect pollinators.
Petal fall	Brown rot, scab Lesser peachtree borer, peachtree borer, plum curculio, Oriental fruit moth	Captan, chlorothalonil, sulfur Malathion, permethrin, zeta-cypermethrin	Repeated use of pyrethroids such as permethrin will increase mite populations. Malathion rarely induces secondary pest populations.

Time of Application	Pest Controlled	Material to Use[1]	Comments
Shuck split: when flower shucks begin to split	Brown rot, scab, black knot of plum Lesser peachtree borer, peachtree borer, plum curculio, Oriental fruit moth	Captan, chlorothalonil, sulfur Malathion, permethrin, zeta-cypermethrin	Do not apply chlorothalonil after shuck split.
Cover sprays: repeat at 10–14 day intervals	Brown rot, black knot of plum, scab Lesser peachtree borer, peachtree borer, plum curculio, Oriental fruit moth	Captan Malathion, permethrin, zeta-cypermethrin	Repeated use of pyrethroids such as permethrin will increase mite populations. Malathion rarely induces secondary pest populations.
Preharvest sprays: 2–3 weeks before harvest [2]	Brown rot Lesser peachtree borer, peachtree borer, plum curculio, Oriental fruit moth, stinkbug, leaffooted bug, grasshopper	Captan, propiconazole Malathion, permethrin, zeta-cypermethrin	These are critical sprays for brown rot control. Propiconazole is more effective than captan for brown rot control. Spray permethrin 14 and 7 days prior to the anticipated harvest date.

Active Ingredient	Product Name
Boscalid + pyraclostrobin + lambda cyhalothrin	Bonide Fruit Tree & Plant Guard
Captan	Hi-Yield Captan 50W Fungicide Bonide Captan Fruit and Ornamental Southern Ag Captan Fungicide
Chlorothalonil	Ferti-lome Broad Spectrum Landscape and Garden Fungicide Bonide Fung-onil Concentrate Ortho Max Garden Disease Control Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide Southern Ag Liquid Ornamental and Vegetable Flowable Fungicide
Copper fungicides	Bonide Copper Liquid Concentrate Monterey Liqui-Cop Southern Ag Liquid Copper Fungicide Natural Guard Copper Soap Liquid Fungicide Soap-shield Flowable Liquid Copper Fungicide
Horticultural oil	Bonide All Seasons Horticultural Spray Oil Horticultural Oil Spray Hi-Yield Dormant Spray Monterey Horticultural Oil Southern Ag Parafine Horticultural Oil
Malathion	Bonide Malathion Insect Control Hi-Yield 55% Malathion Insect Spray Ortho Max Malathion Insect Spray Spectracide Malathion Insect Spray Southern Ag Malathion 50% EC
Mancozeb	Bonide Mancozeb Flowable with Zinc
Myclobutanil	Spectricide Immunox Multipurpose Fungicide Ferti-lome F Stop Lawn & Garden Fungicide Monterey Fungi-Max
Permethrin	Bonide Eight Insect Control Vegetable Fruit & Flower Hi-Yield Indoor/Outdoor Broad Use Insecticide Hi-Yield Garden and Farm Insect Control
Propiconazole	Bonide Infuse Systemic Disease Control

Active Ingredient	Product Name
Pyrethrins	PyGanic Gardening
Spinosad	Southern Ag Conserve Naturalyte Insect Control Bonide Captain Jack's Dead Bug Brew Natural Guard Spinosad Borer, Bagworm & Leafminer Spray Monterey Garden Insect Spray Ortho Insect Killer Tree and Shrub
Streptomycin	Ferti-lome Fire Blight Spray
Sulfur	Bonide Sulfur Plant Fungicide Hi-Yield Dusting Wettable Sulfur Safer Brand Garden Fungicide Southern Ag Wettable or Dusting Sulfur
Zeta-cypermenthrin	Gardentech Sevin Insect Control Gordon's Bug-No-More Lawn & Garden Insect Control

Insecticides for use in the home orchard.

Only common names of active ingredients are listed, because insecticides are available under many different names and formulations. Consult the label for rates and preharvest intervals.

Insecticide	Class	Uses
Oils	Mostly petroleum based	Often referred to as horticulture oils or dormant oils. Oils have been used for >100 years to control scales and other pests of fruit trees. Applied as a dormant application it should be used at a 3% solution. Some highly refined or light weight formulations can be used after bloom, but should only be used at a 1% solution. Do not use in combination with or at least 10 days before or after a fungicide that contains sulfur or captan is applied, or severe leaf burn will occur.
Carbaryl	Carbamate	An old insecticide that controls a broad spectrum of pests, but is not effective against aphids or scales, and can flare mite populations. Also acts as a fruit thinning agent when applied to apples within about 2 weeks after bloom
Malathion	Organophospate	Another old insecticide that also has broad spectrum activity. Effective against insects with sucking mouthparts such as aphids.
Spinosad	Spinosins	A fermentation product of a soil-dwelling organism. It is effective against thrips and leafminers, and leafrollers. Certain formulations are approved for organic use.
Azadirachtin (Neem)	Botanical	Extracted from the seed of the neem tree, formulations of this are approved for organic use. It is most effective against insects with sucking mouthparts such as aphids and leafhoppers, but also has some activity against plum curculio.
Insecticidal soap	Potassium salts of fatty acids	Insecticidal soap can help control soft bodied insects such as aphids and mites, but it has no residual activity.
Acetamiprid	Neonicotinoids	This relatively new insecticide has broad spectrum activity and provides good control of many major pests, including aphids, beetles, and oriental fruit moth. It can also flare mite populations.
Pyrethrin	Botanical	This botanical insecticide has rapid knockdown activity against many pests, but insects often recover. Piperonyl butoxide (PBO) is often mixed with pyrethrin to act as a synergist. It has very short residual activity, which limits its effectiveness.
Permethrin Cyhalothrin Bifenthrin	Pyrethroids	These three different pyrethroid insecticides are synthetic analogs of pyrethrins, but they have enhanced activity and much longer residual activity. They provide excellent control of many key pests, but they can also flare mite populations.