

Helpful Tips for the Home Fruit Grower



Gardening for food is a popular and rewarding hobby. From great quality to simply knowing where your food comes from, the joys of "growing your own" are undeniable. But it's also true that this can be challenging, particularly when it comes to growing fruit.

Bonide Products offers a complete "tool kit" to help you be successful. Your local garden center is also a great resource for products and expertise.



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Getting Started

Site Selection:

Choose a site with good sunlight, soil and drainage, away from structures and other trees.

Plant Selection:

Choose plants appropriately sized for the area available. Grow only the number of plants you can use. Small fruits, like berries can bear fruit sooner, require less space and be easier to maintain than tree fruits.

Choose cultivars and varieties suitable for your space and climate. Early ripening varieties are recommended to avoid potential late season pest problems. Disease resistant varieties are also a good investment.

Pruning:

Dwarf or semi dwarf trees are attractive because they are easier to maintain, prune, spray and harvest. Prune to provide good light penetration, air circulation, and lateral growth. Horizontal branches bear more fruit. Late winter or early spring is typically the best time to prune. Bonide Pruning Sealer effectively protects pruning cuts. Bonide Sucker Punch prevents undesirable new growth.

Other Cultural Practices:

Proper Sanitation – disinfect pruning tools, rake up fallen leaves, twigs and fruit. Exclusion – fencing, bagging, netting, mulches, weed barriers.

Plant Nutrition:

Healthy plants yield more produce. An adequate supply of mineral, micro and macro nutrients will help assure a good harvest. Balanced general purpose fertilizers, used judiciously, should be enough. Bonide Garden Rich Fish Fertilizer can be mixed right in with regularly scheduled sprays, and provides excellent nutrition. Avoid fertilizers high in nitrogen.

Animals:

Rodents like voles and field mice can easily kill young fruit trees. Browsing deer, rabbits, gophers and other animals can also be very destructive.

Birds, squirrels, and chipmunks will consume ripening fruit before you even have a chance to harvest.

Dogs and cats can also be a challenge.





Physical barriers like fencing, netting and a hardware cloth are very effective control measures. Animal repellents can also be useful and more practical. Bonide offers a complete family of animal repellents like Go Away, for use on, and Mole Max and Repels All, and Revenge Mouse, Mole and Gopher Control products for use around. Your local garden center or hardware store can help you choose what's best for you.

Weeds:

All desirable plants do better without competition from weeds. Weeds can also harbor rodents, insect and or disease pathogens. To control them, weed fabric barriers and hand picking can be effective.

Products such as Bonide KleenUp, Sucker Punch, Grass Beater and MAIZE, all provide either complete vegetation kill, for under fruit trees for instance, or more selective broad leaf or grassy weed control. Your local garden center can help you make the right choice. Always read and follow label directions.

Insect and Disease Pest Control

The following series of spray schedules are intended to provide a general recommendation of what Bonide products to use and when to use them for healthy fruit production.

Attention: These schedules are generalized guidelines. Always read and follow each product label. Each label provides specific instructions that must be adhered to.

Bonide has designed three all-purpose products specifically for home fruit production.

- 1.) Fruit Tree and Plant Guard (PG)
- 2.) A complete Fruit Tree Spray (FTS)
- 3.) Citrus Fruit Nut & Orchard Spray (OS)

Each of these products will control most insects, diseases and mites that attack fruit.

Why three products? Three distinctly different chemistries are recommended to provide the tools necessary for pest control by preventing insect and disease resistance. Each product label has specific instructions for how long you must wait from the last application to when you can harvest. Each label limits how many total applications you can make, and how frequently you can make them. Multiple product options prevent any gaps in protection.

In general, we recommend a dormant application of All Seasons Horticultural Oil and Copper Fungicide to treat over wintering insects and disease. Prevention is a critical part of successful fruit growing.

Next we suggest a regular 5-14 day spray schedule that alternates between PG and FTS, until blossom bloom at which time we suggest no spraying to protect pollinators. After bloom, resume the alternating schedule and work in OS.

Your final application should be OS, as that product allows you to spray right up to 1 day before harvest.

Monitor your plants and supplement your normal spray schedule with whatever is called for should unanticipated pest outbreaks occur.

Post-harvest treatments should be applied as needed.

Application Tips

Read and follow labels. Use clean equipment in good working order. Bonide's Auto Mix Hose end sprayer, or Pump and Spray pressure sprayer are both good choices. PG and OS both come with our Twist and Shoot hose end applicator that adjusts for tall tree spraying or low "fan" type spray patterns for berries.

Spray when there is no wind. Avoid the hot periods of the day and direct sunlight. Do not spray when plants are in full bloom.

Pay attention to periods of rapid growth and re-apply as needed. Mix and use only what you need. Wear the protective clothing recommended on the label. Avoid spray drift to other plants or property.

Follow label instructions for disposal of left over spray, sprayer rinse and empty containers. Store products properly, and in their original containers. Do not spray stressed plants. If unsure, do a test application to a few limbs only and observe for ill effects (24-48 hrs).

Spray to cover tops and bottoms of foliage, fruits, limbs and trunks all to the point of dripping off.

3 teaspoons = 1 Tablespoon (T), 2 T = 1 oz., 16 oz. = 1 Pt.

Approximate amount of spray required for fruit trees of different sizes.

Height (in Feet)	Spread (in Feet)	Gallon per Tree per Application ¹
4	3	0.5
5 to 8	3 to 6	1 to 1.5
8 to 10	4 to 8	2 to 3
10 to 15	8 to 15	3 to 6
15 to 20	15 to 25	5 to 10

¹Use the greater amounts for trees in full foliage.

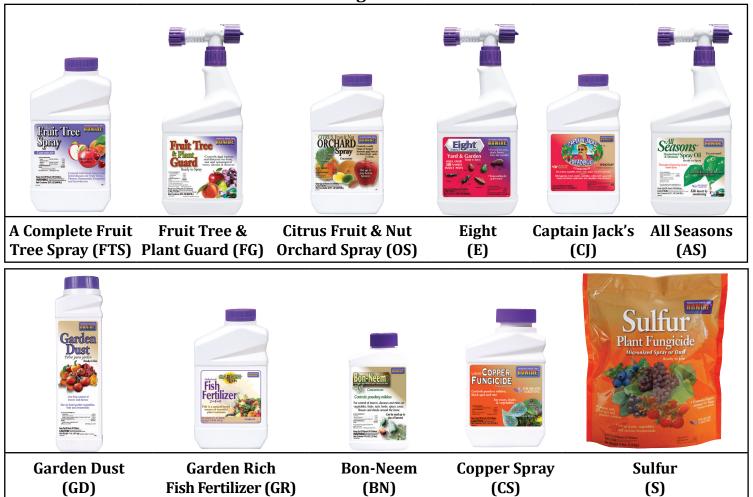


General guide to product selection and appropriate times to use them.

[] indicates a Garden Naturals Product

Product/Plant Stage of Growth	Dormant	Delayed Dormant (Bud Swell)	Bud Break	Bloom	Petal Fall	Pre Harvest	Post Harvest
[All Seasons] (AS)	Х	X			Tun .	X	Х
[Liquid Copper Fungicide] or [Copper Dust] (CS)	X	X	Х	Х	X	X	X
Fruit Tree & Plant Guard (FG)	ĺ	X	Х		X	X	X
A Complete Fruit Tree Spray (FTS)		X	Х		X	X	X
[Citrus Fruit, Nut & Orchard Spray] (OS)		X	Х		X	X	X
Eight (E)		X	Х		X	X	X
[Captain Jack's] (CJ)		X	X		X	Х	X
[Sulfur] (S)	X	X	X	X	X	X	X
[Bon-Neem] (BN)	X	X	Х		X	X	X
[Garden Dust] (GD)		X	X		X	X	X
[Garden Rich Fish Fertilizer] (GR)		X	X	X	X	X	X

Product listing with abreviation



Spray schedules for pest control on pome fruits (apples, crabapple, loquat, may haw, pears, quince)

Plant Stage	Insects and Diseases	Products to use [] = A Garden Naturals Product
Dormant	fire blight, scale, overwintering insects, overwintering disease	[AS], [S], [CS], [BN]
Green tip to half-inch green	scab, scale, apple cedar rust	[AS], FTS, FG, [OS]
Tight to open cluster	scab, rusts, mites	FTS, FG, [OS] (Alternate each throughout spray schedule except bloom)
Pink	aphids, tarnished plant bug, stink bug, scab, rust, apple maggot, budmoth, scale	FTS, FG, [OS]
Bloom	fire blight , scab, rust, powdery mildew, fruit rots, leaf spots	[S], [CS], Captan
Petal fall	plum curculio, pear psylla, plant bugs, leafrollers, scab, rust, fruit rots, sooty blotch, green fruitworms, tarnished plantbugs, Japanese beetles	FTS, FG, [OS] Supplement insect control with [CJ] or [E] if necessary
First cover	codling moth, plum curculio, scab, rust, fruit rot, sooty blotch, leafminers, tufted budmoth, tent caterpillars, aphid	FTS, FG, [OS]
Second cover	codling moth, plum curculio, scale, scab, rust, fruit rots, sooty blotch, leaf spots, mealybug, thrip, fruit flies, aphid, mites, Japanese beetles	FTS, FG, [OS] Supplement insect control with [CJ] or [E] if necessary
Third cover	codling moth, pear psylla, scab, fruit rots, sooty blotch, sawfly, ornage tortrix, webworm, aphid, alternaria blotch, powdery mildew, leafspots	FTS, FG, [OS]
Remaining covers	codling moth, leafhoppers, pear psylla, fruit rots, scab, sooty blotch, white rot	FTS, FG, [OS]

Dormant: Early spring before buds swell. Green tip to half-inch green: When blossom buds show ½ inch green. Tight to open cluster: When fruit buds are visible. Pink: Just before blooms open. Bloom: When 10 to 60% blossoms are open. Petal fall: When last petals are falling. First cover: Seven days after petal fall spray. Second cover: Two weeks after first cover spray. Third cover: Two weeks after second cover. Remaining covers: Spray every two weeks, or as directed on product label.

Spray schedules for pest control on stone fruits (peaches, nectarines, apricots, cherries, and plums)

Plant Stage	Insects and Diseases	Products to use [] = A Garden Naturals Product
Dormant	peach leaf curl, plum pockets	[AS], [S]
Bud swell	scale insects, European red mites, aphids, whitefly, bud moth	[AS], [CJ], [OS], FTS, FG
Pink	catfacing insects (plant bugs and stink bugs)	FTS, FG, [OS]
	black knot, shothole, powdery mildew, anthracnose, scab, blossom blight, leaf spot, alternaria leaf spot	
Bloom	Fungicide should not be required during bloom if good sanitation is used to control brown rot. To protect bees, do not use insecticide during bloom.	If a fungicide is needed [S], [C] or Fung-onil [GR] 1x/month until harvest
Petal fall and first cover	plum curculio, oriental fruit moth, plant bugs, stink bugs, apple moth, caterpillars, borers, leaf rollers, leaf miners, fruit flies, Japanese beetles	FTS, FG, [OS] For insects, supplement with [CJ], or [E] if necessary
	scab and brown rot (on all fruits), black knot of plum, cherry leaf spot, botrytis rot, blight	For disease, supplement with [S], [C], Captan or Fung-onil if necessary
Remaining covers	plum curculio, oriental fruit moth, plant bugs, stink bugs, fruit flies, bud moth, peach twig borer	FTS, FG, [OS] For insects, supplement with [CJ] or [E] if necessary
	scab and brown rot (on all fruits), black knot of plum, cherry leaf spot	For disease, supplement with [S], [C], Captan, or Fung-onil if necessary
Final spray	brown rot	FG, [OS]

Spray schedules for pest control on blueberries, currant and gooseberries

Plant Stage	Insects and Diseases	Products to use [] = A Garden Naturals Product
Dormant	scale insects, overwintering insects and disease	[AS], [BN], [S], [GR] 1x/month though harvest
Petal fall	aphids, thirps, mites, scale, whitefly, armyworm, fireworm, leafroller, plum curculio, bacterial canker, mildew, rust, blights, leafspots (if present)	[OS], [CJ] or [E] for insects only
After bloom	Same as above, plus blueberry maggot and Japanese beetle (if a problem)	[OS], [CJ] for insects, [CS] or [S] for disease only Captan or Fung-onil for mummy berry & anthracnose of blueberries

Dormant: Before bud break. Petal fall: 75% petals have dropped. After bloom: 7 to 10 days after petal fall.

Spray schedule for pest control on grapes.

Plant Stage	Insects and Diseases	Products to use [] = A Garden Naturals Product
Dormant	anthracnose, dead arm, black rot, over wintering insects	[AS], FTS, [BN]
Bud swell	flea beetles, climbing cutworms	FTS, [OS] (Alternate each throughout schedule, except bloom)
New growth (4 to 6 inches long)	black rot, Phomopsis cane, leaf spot	FTS, [OS], [GD]
New growth (10 to 15 inches long or 7 to 10 days after first spray)	black rot, Phomopsis cane, leaf spot	FTS, [OS], [GD] [GS] 1x/month through post harvest
Pre-bloom	black rot, powdery mildew, downy mildew	FTS, [OS], [GD]
Bloom	grape phylloxera, botrytis black rot, powdery mildew, downy mildew	[CS], For disease, supplement with Captan if necessary
Post-bloom	grape berry moth, leafhoppers, leaf skeletonizers	FTS, [OS], [GD]
	black rot, downy mildew, powdery mildew	For insects, supplement with [CJ] if necessary
	mites, aphids, whitefly, spittlebug	
First, second, third, and fourth covers (this is post petal fall until	grape berry moth, leafhoppers, Japanese beetles, rose chafers, flea beetles, mealybug	FTS, [OS], [GD] For insects supplement with [CJ]
harvest)	black rot, powdery mildew, downy mildew, botrytis rot	if necessary
	mites, caterpillars, scale, thrips, fruit flies, mealybug, psyllids	

Berries are generally no longer susceptible to black rot when they reach about 6 to 8% sugar content (usually when they start to change color).

Bud swell: Before buds show green. New growth: 4 to 6 inches long; New growth: 10 to 15 inches long or 7 to 10 days after first spray. Pre-bloom: First blossoms open. Post-bloom: Blossoms have fallen. First cover: 7 to 10 days after post-bloom. Second cover: 10 to 14 days after first cover. Third cover: 10 to 14 days after second cover. Fourth cover: 10 to 14 days after third cover.

Bonide Tomato & Blossom Set Spray RTU, when applied to flowers and surrounding foliage will promote blossom set and earlier fruit development.

Spray schedule for pest control on citrus (oranges, grapefruit, lemons, limes, citron, kumquat)

Plant Stage/Timing	Insects and Diseases	Products to use [] = A Garden Naturals Product
Pre Bloom (Dec - Feb)	psyllid, mites, scale	[AS], [BN]
Feb – March	aphids, citrus leaf miner, scale, mites, scab, rust	[OS], Malathion, [CJ], [BN], [AS], [CS], [GR] 1x/month
March – April	rust mites, spider mites, whitefly, greasy spot scab, melanose, alternaria	[OS], [CJ], Malathion, [CS], [S]
May	mealybug, katydids, aphids, whitefly, greasy spot scab, melanose, alternaria	
June – July	mites, thrips, whitefly, scale, greasy spot scab, melanose, alternaria	[OS], [CJ], Malathion, [AS], [Mite X], [CS], [S], [GR] 1x/month
Aug – Sept	mites, leaf miners, thrips, caterpillars	[OS], [CJ], [GR] 1x/month
Oct – Nov	mites, leaf miners, thrips, psyllid	[OS], [CJ], Malathion
	For Fire Ant control anytime	[CJ]

Do not apply All Seasons within 3 weeks of a sulfur application, or when temperature is over 90°. Follow label. Do not spray insecticides during full bloom.

Spray schedules for pest control on brambles (blackberries and raspberries)

Insects and Diseases	Products to use [] = A Garden Naturals Product
rose scale, anthracnose, cane blight, spur blight	[AS], [BN], [OS] [GR] 1x/month through harvest
Botrytis fruit rot, powdery mildew, anthracnose, spur blight, grey mold	Captan, [CS], [S]
No insecticide used during bloom to protect bees.	
Cane borer, Japanese beetle, green June beetle	[AS], [OS], [BN]
spotted wing drosophila, armyworm, loopers, sawfly, leafroller, fruitworm	[OS] [CJ] or [E] for insects only, [CS] for disease only
Japanese beetle, cane borer	[OS] supplement with Captan or [CS] for disease control if necessary
	rose scale, anthracnose, cane blight, spur blight Botrytis fruit rot, powdery mildew, anthracnose, spur blight, grey mold No insecticide used during bloom to protect bees. Cane borer, Japanese beetle, green June beetle spotted wing drosophila, armyworm, loopers, sawfly, leafroller, fruitworm

Bud break: When buds begin to break and show silver. Pre-harvest: As fruit begin to color.

Spray schedules for pest control on strawberries

Plant Stage	Insects and Diseases	Products to use [] = A Garden Naturals Product
Pre-bloom	aphids, weevil, spittlebug, plant bugs, bud clipper, crown borer, spider mites, lygus bug, flea beetle, Japanese beetle, plant bugs, whitefly, botrytis, grey mold, leaf spots	FTS, [OS],[S] [GR] 1x/month through harvest For insect control supplement with [E] or [CJ] if necessary
During bloom	fruit rots, leaf spots, powdery mildew No insecticide during bloom to protect bees.	Use Mite X for strawberry spider mite if necessary. It will not harm pollinators. Supplement with [S], or Copper Dust for disease if necessary
Post-bloom	spittle bug, bud clipper, tarnished plant bug, Japanese beeltes	FTS, [OS]
Harvest	aphids, weevil, spittlebug, plant bugs, bud clipper, crown borer, spider mites, lygus bug, flea beetle, Japanese beetle, plant bugs, whitefly, botrytis, grey mold, leaf spots	FTS, [OS] for additional insect control use [E] or [CJ] if necessary For slugs or snails use Slug Magic
Post-harvest	leaf spots, insects	FTS, [OS]

Pre-bloom: When blossom stems have pushed out of the crown. Post-bloom: Begin 10 days after full bloom spray (if needed), and continue spray every seven days as needed. Post-harvest: Apply one or more times after renovation (if needed) to protect the new foliage for next year's crop.

Bonide Tomato & Blossom Set Spray RTU, when applied to flowers and surrounding foliage will promote blossom set and earlier fruit development.

The information presented here was current at the time of publication. Product labels change from time to time, so please remember to read and follow all label directions. Products referred to here may not be registered in all states. Dealers, please check with Bonide before offering for sale, or recommending for use.

The following have been used for reference, and are good sources of additional information: The University of TN Institute of Agriculture, The University of MD Cooperative Extension, Purdue University, The University of KY Cooperative Extension, The Cornell Cooperative Extension, The LSU Ag Center, The IFAS Extension



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