



the Urban Scion Post

a publication of the Seattle Tree Fruit Society,
a chapter of the Western Cascade Fruit Society

President's Letter

A Message from the President

I'd like to wish everyone a safe and happy holiday season. I'm looking forward to 2021.

At this point in time, due to the surge of the COVID virus, we are unable to anticipate when we will be able to meet in person again. Hopefully, the vaccine being introduced and distributed will allay the situation. I really want to get back to seeing everyone and talking about what we've grown.

The fruit community lost one of its members last month when Kristan Johnson passed away. Many of you knew Kristan. He had given a few presentations to our club in the past. Kristan was a landscaper/horticulturist who was instrumental in designing the demonstration orchard for the Western Washington Fruit Research Foundation (WWFRF). A former president of WWFRF, Kristan was a great ambassador for the cause of teaching others how to grow great fruit in the Pacific Northwest. You can read some other tributes to him in this issue.

Last month we learned that the Home Orchard Society (HOS) has ended its 45-year reign as one of the prominent non-profit organizations supporting the fruit hobbyist and small farmer. A void was created by its closing. However, the good news is that much of the energy created by this organization will be re-directed to other similar organizations. Many HOS members and volunteers are still involved in the Temperate Orchard Conservancy and the Agrarian Sharing Network. Also, the Home Orchard Education Center, located at Clackamas Community College, will continue its programming. Thanks to those volunteers who are keeping this tradition alive. The Agrarian Sharing Network plans to have an event in our area this coming spring.

Even though we haven't been meeting, I've kept in touch with several members. I've learned from one member that this year was a real good year for hardy kiwis. I tasted a real fine European X Asian Pear ('Crispie') grown by another. I'm still picking and eating some persimmons, and I recently picked some shriveled up hardy kiwis and ate them. They were still very tasty.

The balance of my time is spent planning for next year, or perhaps fantasizing. Will I decide to let my hardy kiwis trail up a tall conifer, as Mike Dolan (Burnt Ridge) has done? Will I order a Farkleberry (*Vaccinium arboretum*), plant it, then try to graft blueberries to it, creating a blueberry tree? (Is that even possible? I don't know. But, it seems worth a try...or not.) I'm quite fascinated with the entire *Vaccinium* family. Will I finally top-work my full-size Gravenstein tree? Will I ever control its rampant growth? Is 'Pink Popcorn' blueberry worth a try? I already have 'Pink Lemonade.' Is it worthwhile keeping my Honeyberries? Lots of things to think about.

Again, have a great holiday season and plan for good things in 2021. I'm looking forward to seeing everyone again.

Regards, *Mike Ewanciw*

Urban Scion Post

Inside this issue:

President's Letter	2
Covid December 2020	3
Difficult Times	4
A Decade in Review	5-6
San Jose Scale	7-9
Asian Persimmons	10-14
Fruitful Kitchen	15
About Seattle Tree Fruit Society	16
Officers, Directors & Member-	16



On the cover

Rosacea wreath: from center top: Puget Spice, rugosa, Everest, Tolman seedling, Adirondack, Margil, hawthorne (repeat, repeat)

Photo: Laure Jansen

A Very Covid December 2020

by Marilyn Tilbury

Was November wet enough for you? There was one spell where it rained every single day for 14 days straight. But that's a La Niña winter here. In contrast, Las Vegas has experienced not a single measurable drop of rain since April 20—that's 223 days and counting as of December 1. Perhaps we should be grateful for our modest local precipitation.

Leaves have mostly fallen, finally. Raking is fine upper body exercise but to avoid raking, some folks spray fallen leaves with a mix of one part urea to five parts water. This hastens decomposition and adds a tad of nitrogen fertilizer.

While raking take a moment to check that each tree trunk has a one foot clear space around it. Voles like to munch the nutritious cambium layer under the bark right at the soil line in winter but are deterred if the trunk is clearly exposed.

If the air temperature is above freezing, plants can still be moved this month. Just be sure to have the new hole already dug before starting to move the plant.

Do you grow peaches? Then you're probably all too familiar with the fungal disease, peach leaf curl. Even resistant trees are susceptible until they've grown a few years. A fungicide spray now and each month until leaves emerge helps to control it. Google "WSU Hortsense" and search under "peach" for peach leaf curl to see the list of effective fungicides for home owners to use. Alternatively, rig up an umbrella over the tree to keep moisture off those susceptible buds until bud break next spring.

Gift giving season is fast approaching. Your fruit tree friends might appreciate receiving a Twister Picker from Amazon or McLendon's (call first). This tool was developed

by a retired Montana wheat grower who moved to sunny southern California and wanted a good avocado picker. We've used ours for everything from cherries to pears. Attach a wooden mop handle painted a festive color.

A La Niña winter implies cool and wet, and the grey Atlas thermal gloves keep hands warm and nimble. Get two pairs so one pair can be in the wash (air dry these). McLendon's and other garden centers stock them.

Is your yard graced with overwintering Anna's hummingbirds? Magellan's fuchsias bloom until frost but a

Hummers Heated Delight feeder will keep sugar water from freezing during cold spells. These well designed feeders are made by the Bolen family in western Oregon and available at their online site.

How about an actual book printed on real paper, not on a screen? [The Earth Almanac](#) by Ken Keffer offers 366 mini-essays to read thru the year. The publisher is local Mountaineers Books. Know a grade schooler? [The Big Book of Blooms](#) by Yuval Zommer has gorgeous illustrations and introduces flower families and information about many plants for the young reader.

This month offers us three super spreader opportunities: Hanukkah, Christmas and New Year's Eve, just as Covid infections are rising everywhere. Experts say that *everyone* will have the opportunity to receive an effective vaccine by the end of next May. Sure, that's at most 6 months away but it truly is the light at the end of the tunnel, so let's all keep up with masking and social distancing for just a bit longer. If nothing else, let's think of our health care workers and lessen their load as much as possible—they deserve it.

Last, remember that research has shown that our immunity is enhanced by getting adequate sleep and receiving a half hour exposure to natural light every day. Surely your yard would profit by your presence for a bit on a daily basis. Here's wishing all a healthy, happy December.



DIFFICULT TIMES IN OUR FRUIT GROWING COMMUNITY

by Laure Jansen

It is with surprise and sadness that I recently learned of the closing of the Home Orchard Society in Oregon. HOS hosted spring and fall fruit shows that were among the largest on the western coast, both in attendance and in fruit represented. Their closure marks the end of an era. A few members with much knowledge and enthusiasm to share that knowledge contributed many hours of hard work to keep the organization up and running in recent times. The eventual demise of HOS was not due to our current pandemic, but rather to a lack of willingness of the part of enough members to contribute their time and effort to promote “backyard” fruit growing in the PNW.

A letter was sent out to all members of HOS in November with the final issue of their newsletter The Pome News, providing information on the dissolution of the 45-year-old organization. Prior to the decision to dissolve the non-profit organization, several letters of appeal for volunteers to serve as board members and other critical positions were mailed to Oregon and Washington members. Low response and lack of volunteers finally resulted in the dissolution of HOS.

Hopefully, we can learn a lesson from this sad event. Despite the restrictions of the Covid pandemic, STFS members can still contribute their skills in some productive fashion. The newsletter always needs articles and photographs; the STFS website could be improved and updated by a volunteer with good tech skills. Other chapters are having meetings with ZOOM software, but STFS still hasn't managed to conquer that hurdle. If you miss our monthly meetings and want STFS to keep afloat, please consider an email or phone call to stay in contact, and to volunteer your skills.



A Note from Bob Baines, President of Western Washington Fruit Research Foundation (NW Fruit)

Greetings to my friends and fellow members of Seattle Tree Fruit Society.

You may have heard that Kristan Johnson passed away about a month ago. He designed the Volunteer Display Garden area at the WSU Research Farm in Mt. Vernon in the late 1990's and for many years he was the leader of the Western Washington Fruit Research Foundation as president, garden committee chairman, mentor, and friend.

Kim Siebert has posted a lovely tribute to the overarching legacy he has bestowed on our organization, though a more specific listing of his contributions would take many pages. You can find it on our NW Fruit website at <https://nwfruit.org/a-great-loss/> along with a beautiful photo which captures creative and generous spirit.

The weekend following his death, about a dozen of his friends gathered for an informal memory sharing zoom meeting. From the comments shared that day and the many email tributes our members have shared, I was deeply moved by the variety of stories about the relationships we had all had with him. The common denominator to all was how Kristan always engaged people in a dialog and that he assumed that what they had to say was at least as important as his own view of the topic at hand. Then of course you would have to debate (in a respectful manner) the most reasonable resolution of the issue. He had a way of making you feel that your contribution was valuable and loved his role as the “leader of the garden”. He was always investigating new ways to solve problems and was open to suggestions about what strategies to pursue. I'm most grateful for the vision of personal success he demonstrated every day.

Use your skills and talents to create something wonderful that you love and spend your years in service to that creation. You ultimately get only one chance to get it right, and Kristan, my friend, I think you nailed it.

Bob Baines



STFS: A DECADE IN REVIEW

by Laure Jansen

For the last twelve years, as an editor of the Urban Scion Post, I have recorded and documented the many activities of the Seattle Tree Fruit Society. STFS is has been fortunate to have good leadership, good community and good members. Newer members may not have experienced these opportunities and longer-term members may be forgotten them. Because we are currently limited to mostly virtual connections, many of us are missing the monthly and annual STFS events that connected us with each other.

During the past decade, I have learned so much about gardening, orcharding, growing fruit, permaculture, pollinators, beneficial and not-so-beneficial insects and much more. I am grateful for the opportunities I have had to work with experienced grafters, knowledgeable pruners, wonderful cooks, inspired permaculturists, master gardeners, and other fruit enthusiasts who are all so much fun to spend time with. Our fruit community is part of a greater social web that connects us with numerous other organizations and people. We learn not just from STFS members, but from all our interactions with these special people.

So here below I provide a review of STFS activities during the past decade, by no means complete, for your perusal. Eventually I hope to have an index on the STFS website of articles published in the USP. Hopefully you will be inspired to investigate what STFS offers you personally, and what your might be able to offer to other members in terms of knowledge, skills or energy.

Community Outreach: PlantAmnesty Prun-a-thon, Master Gardener's Plant Sale, Seattle Tilth's Spring Plant Sale, Snoqualamie Valley Seed Exchange, NW Seattle Seed Swap, Flower & Garden Show, Mother Earth News Fair.

Organizations in our fruit community: 21 Acres Farm, Agrarian Sharing Network, Freeway Estates Orchard, Mara Community Gardens, Seattle Tilth (Meridian Orchard and Good Shepherd Center), Beacon Hill Food Forest, Plant Amnesty, Sustainable NE Seattle, Holy Cross Lutheran Church (Orchard), Piper's Orchard, Home Orchard Society, City Fruit, WCFS and its other chapters.

Workshops: dormant grafting, bud grafting, winter pruning, summer pruning, espalier pruning, maggot barrier application, fruit thinning, tree netting, pie making, Magnuson orchard care.

Field Trips: Tom Wood's greenhouses, Raintree Nursery, Cloud Mountain Farm Center, Salt Spring Island Fruit Festival, Burnt Ridge Nursery, Home Orchard Society, Nashi Cidery, Vashon Island Fruit Club orchard at Sunrise Ridge.

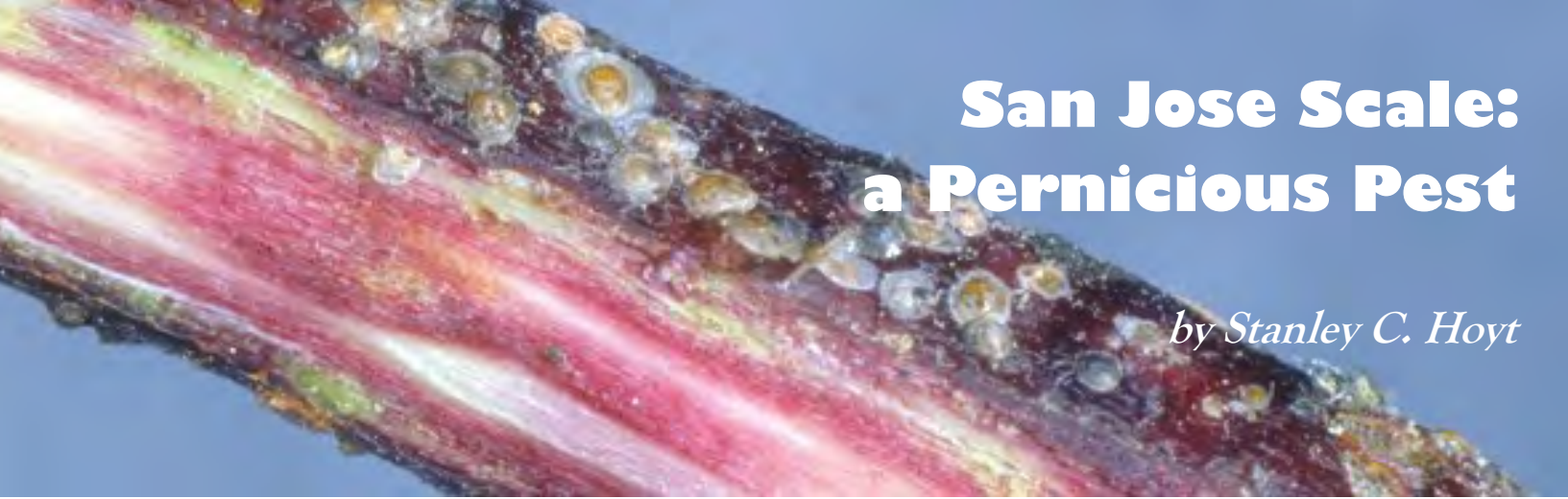
STFS Member Garden Tours: 2010, 2011, 2012, 2016, 2018

Events: Spring Grafting Event, Fall Fruit Show, Lecture Days, Volunteer Appreciation Dinner & Contra dance, tool sharpening, books swaps, plant sales and swaps, grow-your-own mushroom kits, SWD trap construction.

Lecture Topics: Organic Orchardling, Cornelian cherries, Growing Blueberries, Sakuma Strawberries, Cider Apple Research at WSU, Bees, Fruit Tree Pests, Protecting Your Crop, Experience of Bad Bugs, Harvest Timing & Ripeness Testing, Grape Culture in the PNW, Growing Organically, Growing Nut Trees, Edible Wild Plants, Bringing Soil Back to Life, How to Build Better Soil Inexpensively, Growing Avocados, Matching Your Crop to Your Lifestyle, Fungi in the Garden, WSU Berry Breeding, Craft Cider Making, Historic Orchards of the NW, Rootstock Development Programs, Cooking with Fruit, Forest Gardens, Little Known Pollinators, Tree Fruit Diseases, Luscious Landscaping with Fruit, Tools and Tool Care, Pie Making, Home Preserving, Permaculture, Biochar, Potted Fruit Trees, Spotted Wing Drusophila (SWD).

San Jose Scale: a Pernicious Pest

by Stanley C. Hoyt



San Jose scale (*Quadraspidiotus perniciosus*) is a key pest in almost all the fruit growing districts of the United States. It was introduced to California from China on flowering peach in the early 1870s and soon became a serious pest in the San Jose area. By the late 1890s it had spread to all parts of the United States.

The scale is a tiny insect that sucks the plant juices from twigs, branches, fruit and foliage. Although an individual scale cannot inflict much damage, a single female and her offspring can produce several thousand scales in one season. If uncontrolled, they can kill the tree as well as make the fruit unmarketable.

San Jose scale is a problem particularly in large, older trees where it is difficult to achieve good spray coverage, but young, unsprayed trees may also be vulnerable. The pest has become of increasing concern to the Northwest tree fruit industry due to the importance of exports, as phytosanitary regulations bar infested fruit from some countries.

Although scale lives primarily on the tree bark, surviving under scales and in crevices, the first indication it is in the orchard may be small red spots on the fruit or leaves.



Hosts

San Jose scale is most destructive on apple and pear, but it can be a serious pest of sweet cherry, peach, prune and other tree fruits. It also attacks nut trees, berry bushes and many kinds of shade trees and ornamental shrubs. Infestations in backyard or wild trees can spread to nearby orchards.

Life stages

Crawler

The female San Jose scale produces live young. The newly hatched crawler of either sex is yellow. It has six legs, two antennae and a bristle-like sucking beak that is almost three times the length of its tiny, oval body. The crawler seeks a suitable site to settle and immediately begins to secrete a waxy covering over its body, which hardens into a scale. The scale turns from white to black and then to gray and goes through several molts before maturing. The differences in sexes become apparent after the first molt, although the scales covering them are identical. The females are smaller and rounder than the males and have lost their eyes, legs and antennae. The males have eyes but no legs or antennae.

Adult

The mature male is a very small, yellowish-tan insect with wings and long antennae. The female is wingless and legless, and its yellow body is soft and globular. The covering of a full grown female is about the size of a pin head, with a central, nipple-like bulge. The color is often obscured by a sooty fungus.

San Jose scale has two generations a year in Washington. It overwinters in the black-capped, immature stage. Being unable to move, the scales must survive wherever they happen to be on the tree, and in severe winters many may be



Apple fruit infested by San Jose scale (E. Beers)

killed. Scales that are further developed than the black-cap stage in the fall are usually killed by cold weather. Increased scale problems can be expected after mild winters. In the spring, surviving scales continue to mature.

After developing through larval and pupal stages, the males mature and back out from their scales about 4 to 6 weeks after birth. Adult males fly for only a few days and are capable of mating immediately with the females, which remain under their scales. Female scales release a pheromone to attract males for mating. Each female produces several hundred live crawlers over a 6-week period. Timing of the different stages varies from year to year, depending on temperatures. Usually, crawlers of the first generation appear in early June and may continue to be produced until early August.

The young crawlers move over the plant during the first few hours of their lives. They can be carried to other trees by the wind, on the feet of birds, on the clothing of farm workers or on orchard equipment. Within a few hours they settle on the bark, leaves or fruit, insert their long, bristle-like beaks, and begin feeding and forming a scale covering. Females of the first generation mature in late July, and second generation crawlers appear in August. The two generations often overlap, and during the summer all stages can be found on the tree at the same time. Second generation crawlers continue to be produced until October or November.

Damage

If neglected, scale populations can quickly grow into a problem because the insect multiplies so rapidly. An infested apple can have 1,000 or more scale on it. A red spot will appear around the scales as they start to feed on the fruit,

and often the feeding causes a slight depression. The spots are a brilliant red at first, but as the fruit grows and the spots increase in size, they fade to light red or pink. On red apples, spots are difficult to see. Trees infested with San Jose scale produce small, immature apples, and infested apples do not color properly. If the trees are seriously infested, the apples crack and have a musty smell. The pest can be detected in an orchard bin or in the packing house by the odor.

Besides making fruit unmarketable, San Jose scale kills twigs and limbs. If not controlled, it can kill the tree. More commonly, infestations of San Jose scale are light in commercial orchards. A small number of scales will infest an occasional fruit in or near the calyx. These scales may be difficult to locate on the sorting table. Packed fruit may be rejected, particularly in export markets, if it has scale or markings from scale feeding.

Monitoring

It is usually not practical to sample to determine density or potential for fruit infestation, because the pest is seldom distributed uniformly throughout a tree and may infest only a few trees in an orchard block. However, if scale-infested fruit are found after the first generation of crawlers have settled, measures against the second generation are indicated.

Scale may be noticed during pruning or on fruit as it is harvested. In cherry orchards, leaves of scale infested trees do not drop in fall, making it easy to detect infested areas of the orchard. Mark infested areas as they are noticed so they can be given special attention when control treatments are applied. Place two-sided sticky tape on small limbs in infested areas to determine when crawlers are active, or use the degree day model to time summer sprays.

Adult male flight can be monitored with pheromone traps. However, it has been difficult to relate trap catch with potential fruit damage. A biofix can be established using the traps, and development can be predicted using a degree day model (see section on Management below).

Biological control

Several parasites and predators attack San Jose scale. In Washington, the parasitoids recorded from San Jose scale include *Encarsia perniciosi* and *Aphytis* sp. Although they destroy many scales, they do not provide enough control to prevent damage. Natural enemies may become numerous in orchards that are not sprayed with insecticides, but even under these conditions biological control has not

Degree Day/Development Table for San Jose Scale

Accumulated degree days	% males	% crawlers	Accumulated degree days	% males	% crawlers	Accumulated degree days	% males	% crawlers
0 (275)	20	0	560	0	55	1120	64	0
20	36	0	580	0	61	1140	69	0
40	52	0	600	0	67	1160	74	0
60	68	0	620	0	73	1180	78	0
80	80	0	640	0	78	1200	82	1
100	89	0	660	0	82	1220	85	1
120	94	0	680	0	86	1240	88	1
140	97	0	700	0	89	1260	91	2
160	99	0	720	0	92	1280	93	3
180	100	0	740	0	94	1300	94	4
200	100	0	760	0	95	1320	96	5
220	100	0	780	1	96	1340	97	6
240	100	0	800	1	97	1360	98	8
260	100	0	820	2	98	1380	98	10
280	100	0	840	3	99	1400	99	13
300	100	1	860	4	99	1420	99	16
320	100	1	880	6	99	1440	99	19
340	100	2	900	8	100	1460	100	22
360	0	4	920	11	100	1480	100	26
380	0	6	940	15	100	1500	100	30
400	0	9	960	19	100	1520	100	35
420	0	12	980	23	100	1540	100	39
440	0	17	1000	29	100	1560	100	44
460	0	22	1020	34	100	1580	100	49
480	0	28	1040	40	100	1600	0	53
500	0	34	1060	46	100	1620	0	58
520	0	41	1080	52	0	1640	0	62
540	0	48	1100	58	0	1660	0	67

This table shows the relationship between accumulated degree days and the emergence of male scales and crawlers. The first males emerge about 275 degree days after January 1. Sprays aimed at crawlers should be applied between 400 and 450 days after biofix.

been adequate. Currently, biological controls are only a supplement to chemical control.

San Jose scale was the first known insect in the United States to show resistance to a pesticide. Its resistance to lime-sulfur was reported in Washington in 1908. It caused tremendous damage and killed many trees before better chemical controls were found. Scale can develop rapidly in young, unsprayed trees, and scattered trees in the orchard may become encrusted with scale. New plantings should be checked annually. Where young trees are interplanted in old infested orchards, they quickly become infested. In older orchards, infestations may be spread to the top of the trees by birds and may go unnoticed for several years until scales are visible on the fruit.

The best approach to orchard protection is to prevent scales from becoming established. This can be done by treating the orchard annually before bloom when buds are beginning to open and good spray coverage of the tree can be achieved. If infestations become heavy, particularly on older, large trees, the insects may get under bark scales or on top of high leaders where they are difficult to target. Additional sprays, possibly by hand gun, may be needed for a few years to reduce populations. Summer sprays di-

rected at the crawler stage help protect fruit but usually do not control infestations. For this reason, they are a supplement to the early season spray, not a substitute.

A degree day model is helpful for timing crawler sprays in June. The lower and upper developmental thresholds of San Jose scale are 51°F and 90°F. A degree day look-up table based on these thresholds is below. The model should be started at first male scale capture in a pheromone trap (the biofix). Because male scale flight is difficult to monitor accurately in commercial orchards, the regionally established biofix for codling moth is often used to start the San Jose scale model, as the flight of both insects commonly begins on the same day. If neither biofix is available, start the model at full bloom of Red Delicious. Apply sprays aimed at crawlers between 400 and 450 degree days after biofix. This timing is usually close to the second cover spray for codling moth. The degree day table shows the relationship between degree days and the emergence of male scale and crawlers. It is important to examine young trees not receiving a full spray program. Control of infestations in the early stages will not only protect tree vigor but will prevent them from spreading to other trees in the orchard.



The Asian Persimmon

This article is reprinted from *California Rare Fruit Growers*, 1996.

The oriental persimmon (*Diospyros kaki* Linn) is native to China, where it has been cultivated for centuries and more than two thousand different cultivars exist. It spread to Korea and Japan many years ago where additional cultivars were developed. The plant was introduced to California in the mid 1800's. The oriental persimmon is related to a number of other fruits: Black Sapote (*Diospyros digyna*), Mabolo, Velvet Apple (*D. discolor*), Date Plum (*D. lotus*), Texas Persimmon (*D. texana*), American Persimmon (*D. virginiana*).

Persimmons do best in areas that have moderate winters and relatively mild summers--suitable for growing in USDA Hardiness Zones 7 to 10. It can tolerate temperatures of 0° F when fully dormant. However, because of its low chilling requirement (less than 100 hours), it may break dormancy during early warm spells only to be damaged by spring frosts later. The leaves are killed by 26° F when growing. Trees do not produce well in the high summer heat of desert regions, which may also sunburn the bark.

The **persimmon** is a multitrunked or single-stemmed deciduous tree to 25 ft. high and at least as wide. It is a handsome ornamental with drooping leaves and branches that give it a languid, rather tropical appearance. The branches are somewhat brittle and can be damaged in high winds.

Persimmon leaves are alternate, simple, ovate and up to 7 inches long and 4 inches wide. They are often pale, slightly yellowish green in youth, turning a dark, glossy green as they age. Under mild autumn conditions the leaves often turn dramatic shades of yellow, orange and red. Tea can also be made from fresh or dried leaves.

The inconspicuous flowers surrounded by a green calyx tube are borne in the leaf axils of new growth from one-year old wood. Female flowers are single and cream-colored while the pink-tinged male flowers are typically borne in threes. Commonly, 1 to 5 flowers per twig emerge as the new growth extends (typically March).

Persimmon trees are usually either male or female, but some trees have both male and female flowers. On male plants, especially, occasional perfect (bisexual) flowers occur, producing an atypical fruit. A tree's sexual expression can vary from one year to the other. Many cultivars are parthenocarpic (setting seedless fruit without pollination), although some climates require pollination for adequate production. When plants not needing pollination are pollinated, they will produce fruits with seeds and may be larger and have a different flavor and texture than do their seedless counterparts.

Persimmons can be classified into two general categories: those that bear astringent fruit until they are soft ripe and those that bear nonastringent fruits. Within each of these categories, there are cultivars whose fruits are influenced by pollination (pollination variant) and cultivars whose fruits are unaffected by pollination (pollination constant). Actually, it is the seeds, not pollination per se, that influences the fruit. An astringent cultivar must be jelly soft before it is fit to eat, and such cultivars are best adapted to cooler regions where persimmons can be grown. The flesh color of pollination-constant astringent cultivars is not influenced by pollination. Pollination-variant astringent cultivars have dark flesh around the seeds when pollinated. A nonastringent persimmon can be eaten when it is crisp as an apple.

These cultivars need hot summers, and the fruit might retain some astringency when grown in cooler regions. Pollination-constant nonastringent (PCNA) persimmons

are always edible when still firm; pollination-variant nonastringent (PVNA) fruit are edible when firm only if they have been pollinated.

The shape of the fruit varies by cultivar from spherical to acorn to flattened or squarish. The color of the fruit varies from light yellow-orange to dark orange-red. The size can be as little as a few ounces to more than a pound. The entire fruit is edible except for the seed and calyx. Alternate bearing is common. This can be partially overcome by thinning the fruit or moderately pruning after a light-crop year. Astringency can also be removed by treating with carbon dioxide or alcohol. Freezing the fruit overnight and then thawing softens the fruit and also removes the astringency. Unharvested fruit remaining on the tree after leaf fall creates a very decorative effect. It is common for many immature fruit to drop from May to September.

GROWING PERSIMMONS

Location: Full sun with some air movement is recommended for persimmon trees in inland areas, although they will tolerate some partial shade. Persimmons grown in cooler areas should have full sun with protection from cooling breezes. As an attractive ornamental the tree fits well in the landscape. It does not compete well with eucalyptus.

Soil: Persimmons can withstand a wide range of conditions as long as the soil is not overly salty, but does best in deep, well drained loam. A pH range of 6.5 to 7.5 is preferred. The tree has a strong tap root which may mean digging a deeper hole than usual when planting (when on *D. kaki* stock).

Irrigation: Persimmon trees will withstand short periods of drought, but the fruit will be larger and of higher quality with regular watering. Extreme drought will cause the leaves and fruit to drop prematurely. Any fruit left on the tree will probably sunburn. Some 36 to 48 inches of water are needed annually, applied gradually in spring and tapering off in the fall. Hot inland areas may require 2 or 3 applications weekly, while coastal areas may need watering only once every 6 weeks, depending on the soil. If a drip system is used, the emitters should be moved away from the trunk as the tree matures.

Fertilization: Most trees do well with a minimum of

fertilizing. Excess nitrogen can cause fruit drop. If mature leaves are not deep green and shoot growth is less than a foot per year, apply a balanced fertilizer such as a 10-10-10 at a rate of 1 pound per inch of trunk diameter at ground level. Spread the fertilizer evenly under the canopy in late winter or early spring.

Pruning: Prune persimmon trees to develop a strong framework of main branches while the tree is young. Otherwise the fruit, which is borne at the tips of the branches, may be too heavy and cause breakage. A regular program of removal of some new growth and heading others each year will improve structure and reduce alternate bearing. An open vase system is probably best. Even though the trees grow well on their own, persimmons can be pruned heavily as a hedge, as a screen, or to control size. They even make a nice espalier. Cut young trees back to 1/2 high (or about 3 feet) at the time of planting.

Propagation: Stratification is recommended for all persimmon seeds. The common rootstock in California is *D. lotus*, although it is not compatible with some cultivars, including Fuyu. Other rootstock such as *D. kaki* seedlings are temperamental and have long tap roots. *D. virginiana* is inconsistent and suckers badly. Whip and cleft grafts are the ones commonly used. The trunks of young trees should be protected from sunburn and rodent damage.

Pests and Diseases: Persimmons are relatively problem-free, although mealybug and scale in association with ants can sometimes cause problems. Ant control will usually take care of these pests. Other occasional pests include white flies, thrips which can cause skin blemishes and a mite that is blamed for the "brown lace collar" near the calyx. Waterlogging can also cause root rot. Vertebrate pests such as squirrels, deer, coyotes, rats, opossums and birds are fond of the fruit and gophers will attack the roots. Other problems include blossom and young fruit shedding, especially on young trees. This is not usually a serious problem, but if the drop is excessive, it may be useful to try girdling a few branches. Over watering or over fertilization may also be responsible. Large quantities of small fruit on an otherwise healthy tree can be remedied by removing all but one or two fruit per twig in May or June.

Harvest: Harvest astringent varieties when they are hard but fully colored. They will soften on the tree and

improve in quality, but you will probably lose many fruit to the birds. Astringent persimmons will ripen off the tree if stored at room temperature. Non-astringent persimmons are ready to harvest when they are fully colored, but for best flavor, allow them to soften slightly after harvest. Both kinds of persimmons should be cut from the tree with hand-held pruning shears, leaving the calyx intact. Unless the fruit is to be used for drying whole, the stems should be cut as close to the fruit as possible. Even though the fruit is relatively hard when harvested, it will bruise easily, so handle with care.

Mature, hard astringent persimmons can be stored in the refrigerator for at least a month. They can also be frozen for 6 to 8 months. Non-astringent persimmons can be stored for a short period at room temperature. They will soften if kept with other fruit in the refrigerator. Persimmons also make an excellent dried fruit. They can either be peeled and dried whole or cut into slices (peeled or unpeeled) and dried that way. When firm astringent persimmons are peeled and dried whole they lose all their astringency and develop a sweet, date-like consistency.

FURTHER READING

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CULTIVARS

There has been a great deal of confusion and misidentification among persimmon cultivars. The following list is subject to revision as better analysis techniques become available.

Astringent Varieties

Eureka

Medium to large oblate fruit, puckered at the calyx. Skin bright orange-red. Good quality. Ripens late. Tree small, vigorous, drought and frost resistant, precocious and heavy-bearing. One of the most satisfactory cultivars for Florida and Texas

Hachiya

Large, oblong-conical fruit. Skin glossy, deep orange. Flesh dark yellow. Sweet and rich. Good for drying. Ripens midseason to late. Tree vigorous, upright-spreading. Prolific in California.

Honan Red

Small, roundish oblate fruit with thin skin. Skin and flesh ripen to a distinct orange-red. Very sweet and rich. Excellent for fresh eating and drying. Ripens midseason to late. Tall, upright, moderately vigorous tree. Bears good crop.

Saijo

Small, elongated fruit. Skin dull-yellow when mature. Flavor sweet, excellent, ranked among the best by gourmets. Mature fruits are attractive when dried. Tree medium in height, bears consistently. Cold hardy to -10° F.

Tamopan

Large, somewhat four-sided fruit, broad-oblate and indented around the middle. Skin thick, orange-red. Flesh light orange, sweet and rich when fully ripe. Ripens midseason in California

Tanenashi

Medium-sized round-conical fruits. Skin light yellow or orange, turning orange-red, thick. Flesh yellow, sweet. Ripens early. Tree vigorous, rounded, prolific. In California tends to bear in alternate years.

Triumph

Sold as Sharon Fruit after astringency has been chemically removed. Medium-sized, oblate fruits. Ripens in October.

Nonstringent Varieties

Fuyu (Fuyugaki)

Medium-large oblate fruit, faintly four-sided. Skin deep orange. Flesh light orange, sweet and mild. Ripens late. Keeps well and is an excellent packer and shipper. Tree vigorous, spreading, productive. Most popular nonstringent cultivar in Japan.

Gosho/Giant Fuyu/O'Gosho

Large, roundish-oblate fruit. Skin reddish orange, attractive. When fully ripe has one of the deepest red colors of any persimmon. Flesh quality good, sweeter than Fuyu. Ripens in late October. Tree somewhat dwarf. Bears regularly but sets a light crop in some seasons and is prone to premature shedding of fruit.

Ichi-Ki-Kei-Jiro

Medium-large fruit that is sweet even when picked firm! Fruit is round to oblate. Seedless. Heat-tolerant. Ripens in September to October

Imoto

Similar to Jiro. Reddish brown skin. Occasional male flowers and seeds. Probably a bud mutation of Jiro. Ripens late October and early November

Izu

Medium-sized fruit. Skin burnt orange. Flesh soft, with a good amount of syrup, of fine texture. Flavor very good. Not reliably nonastringent. Ripens early, from the end of September to mid-October. Tree somewhat dwarf. Bears only female flowers. Sets good crop.

Jiro

Fruit large. Resembles Fuyu, but more truncated and squarish in cross-section. Skin orange-red. Flavor and quality excellent. Ripens late October and early November, ships well. Often sold as Fuyu. Tree slightly upright. Most popular nonastringent variety in California.

Maekawajiro

Medium-sized, rounded fruit, smoother and less indented than Jiro. Rich orange in color. Sweet and of good quality. Ripens in mid-season. Tree slightly upright. Must be planted with a suitable pollinator to ensure good fruit yield. Bud mutation of Jiro.

Okugosho

Medium-sized, round fruit. Skin orange to deep red. Flesh sweet, of good texture, flavor good. Not reliably nonastringent. Ripens in early November. Tree medium-sized, vigorous, spreading. Differentiates male flowers, making it a suitable pollinator.

Suruga

Large fruit. Skin orange-red. Flesh dense, very sweet, excellent quality. Difficult to soften on tree (fruit becomes spongy rather than soft). Ripens in November, keeps well. Tree almost free from alternate bearing. Recommended for warmer climates.

Pollination Variant Varieties (astringent when seedless)

Chocolate

Small to medium-sized, oblong-conical fruit. Skin reddish orange. Flesh brown-streaked when pollinated, must be soft-ripe before eating. Ripens late October to early November. Tree large, vigorous, producing many male blossoms. Recommended as a pollinator for pollination variant cultivars such as Hyakuma and Zenji Maru.

Gailey

Fruit small, roundish to conical with a rounded apex. Skin dull red, pebbled. Flesh dark, firm, juicy, of fair flavor. Tree small to medium. Bears many male flowers regularly and is an excellent cultivar to plant for cross-pollination. Has attractive autumn foliage and ornamental value.

Hyakume

Fruit large, roundish oblong to roundish oblate. Skin buff-yellow to light orange, marked with rings and veins near the apex. Flesh dark cinnamon when seeded, juicy, of firm texture, nonmelting. Flavor spicy, very good. Nonastringent even while the fruit is still hard. Ripens in midseason, stores and ships well.

Maru

Small to medium-sized fruit, rounded at the apex. Skin brilliant orange-red, attractive. Flesh dark cinnamon, juicy, sweet and rich, quality excellent. Stores and ships especially well. Tree vigorous and productive. Generally considered a group name.

Nishimura Wase

Fruit medium, round conical to oblate. Orange color. Mediocre flavor. Ripens in September. Bears male flowers.

from the Fruitful Kitchen:

Pear, Persimmon & Winter Greens Salad

- 3 Comice pears, cored and cut into 1/8-inch slices (see note)
- 6 Fuyu persimmons, peeled, cored and cut into 1/4-inch slices
- 3 endive, cored and cut into 1-inch slices
- small bunch of watercress, if available
- 1/4 cup toasted hazelnuts, walnuts or pecans
- 1/4 cup crumbled Stilton cheese, crumbled
- 1/4 cup pomegranate seeds

Sherry-Shallot Vinaigrette

- 1 tablespoon minced shallot
- 2 tablespoons sherry vinegar
- Salt
- freshly ground pepper
- 6 tablespoons light olive oil

Whisk the dressing ingredients together.

Just before serving, toss pears, persimmons and endive in a bowl and dress with vinaigrette. Season to taste. Serve over greens, if using, and sprinkle with hazelnuts, Stilton and pomegranate seeds.

Contributed by Tracey Bernal

I've been making a version of this salad for almost 30 years. I found this combination at New York Times Cooking, just in time for the last of our Giant Fuyu persimmons and the pomegranate that arrived in last week's produce delivery. It's a gorgeous and colorful salad that will brighten up the late fall table.

(photo: rainbowdelicious.com)

STFS: Who Are We and What We Do

Western Cascade Fruit Society, our parent organization, is a 501(c)(3) nonprofit organization. The WCFS was founded in 1980 and is made up of chapters throughout Western Washington whose members are aspiring hobby orchardists and backyard fruit growers. Our primary objective is to bring together new and experienced fruit growers who will promote the science, cultivation and pleasure of growing fruit bearing trees, vines and plants in the home landscape. Local chapters disseminate information through education, fruit shows, orchard tours, meetings, workshops, and publications.

WCFS is the parent organization to nine affiliated chapters. WCFS publishes a quarterly BeeLine newsletter to inform members of events, tours, articles, and reports. Members receive automatic membership in WCFS after joining an affiliated Chapter. WCFS provides other member services, including a member forum, a chapter-wide event calendar, and a home for chapter sites. These can be found at www.wcfs.org.

Seattle Tree Fruit Society (STFS) is a chapter of WCFS, one of nine chapters in Western Washington. STFS brings together amateur growers – beginners to experts – from the Greater Seattle area who share an interest in growing fruit and nut trees, berries, kiwis, grapes, and other fruit. We offer information on adapted varieties, up-to-the-minute growing techniques, and share our own experiences growing fruit.

We meet each month from September to May, usually on a Saturday morning. Programs explore topics tailored to Western Washington growers, such as grafting, pruning, pest control, recommended varieties, nurseries, suppliers, home wine and cider making, and more.

STFS members receive both The Urban Scion Post, our monthly newsletter, and The BeeLine, an on-line quarterly from Western Cascade Fruit Society. Both feature a wide variety of useful articles about fruit, and announce upcoming events. Find us on [Facebook](#) and on our website www.seattletreefruitsociety.com.

The function of our STFS **membership** is to **be** the Seattle Tree Fruit Society. This is your organization. Please let us know what is most important to you. STFS can always do more! If there is a way that any of our members feel that STFS can be better, let us know. How can the board of directors be of further help to you as members? Please let board members know. And, some extent, the question is what can you, as a part of our organization, do to make STFS better, be it for your community, your local chapter, or for WCFS, our parent organization. Get involved. Remember, STFS is **you**.

SEATTLE TREE FRUIT SOCIETY

Email: seattletreefruitsociety@gmail.com

STFS OFFICERS:

PRESIDENT: Mike Ewanciw (2021)
(206) 683-9665 seattletreefruitsociety@gmail.com

VICE-PRES. Tracey Bernal (2021)
(206) 913-3778

SECRETARY Sue Williams (2021)

TREASURER Trent Elwing (2021)
(206) 517-3118

MEMBERSHIP: Trent Elwing (206) 517-3118
HOSPITALITY: Judy Scheinuk (206) 363-5038
TECHNOLOGY: Mark Lee (206) 434-1693

STFS DIRECTORS:

#1 - Rick Shultz (2020) (206) 327-4730
#2 - Laure Jansen (2019) (206) 743-2348
#3 - Linda Sartnurak (2021) (425) 271-6264
#4 - Vacant
#5 - Gudrun Utz (2021) (206) 491-2133
#6 - Trent Elwing (2021) (206) 517-3118
#7 - Vacant (2019)

USP EDITORS:

Laure Jansen seattleorchardist@gmail.com
Tracey Bernal tmjbernal0216@gmail.com

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