

June 2023



Iris Supreme Sultan

Photo by R. Bessette

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Board members 2023

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President's message



As spring moves onto summer, I savor the plants in bloom as they miraculously emerge from the winter. As I walk my Schipperke through the neighborhood, she pivots to chase smells on the grass and bushes, digging in her paws until she's ready to move on. I, too, pivot as a scent carries in the breeze. The chokecherries dripping with blossoms are as sweet as the magnolias in North Carolina. The morning greets me with the scent of pine needles; after a rain the desert sage emits its earthy fragrance. The pink and white and purple lilacs draping over the fences pull me in another direction. The mint sprawling across the garden begs me to make mint juleps.

By the time you read this, the June Garden Fair will have come and gone, along with the Home & Garden Show and our spring rush of classes. Almost everyone in our organization helped with some aspect of these events. Now we move onto maintaining our demonstration and community gardens. I encourage you to pick a garden, get to know a plant, and get to know the planters and the volunteers. Maintenance days are alternated among the demo gardens on Mondays, Tuesday, Wednesdays and Thursdays. Both community gardens (Discovery Park and Hollinshead) can use help... no experience necessary. Check out the COMGA website for project coordinators to contact. And don't forget the Plant Clinic where you will learn tons of information while doing research for our community.

I hope you enjoy these last few weeks of spring.

Janet Dart



COMGA Calendar **for contact persons go to gocomga.com**

June

3 June Garden Fair & Plant Sale, 9:00am-2:00pm
6 Redmond demo garden workday, 9:00am
10 Blog: Gardening in Central Oregon
15 Discovery Park CG volunteer workday, 6:00pm
20 Redmond Demo garden workday, 9:00am
24 Blog: Gardening in Central Oregon
24 Discovery Park CG open garden, 8:00am-10:00am

July

5 Redmond Demo garden workday, 9:00am
7 OMGA Mini-College Day
8 OMGA Mini-College Day
8 Blog: Gardening in Central Oregon
15 OSU High Desert Garden Tour
18 Redmond Demo garden workday, 9:00am
19 Alpenglow Demo garden workday, 10:00am
20 Hollinshead CG volunteer meeting, 10:00am
20 Discovery Park CG Volunteer workday, 6:00pm
22 Blog: Gardening in Central Oregon

August

1 Redmond Demo garden workday, 9:00am
2 Alpenglow Demo Garden workday, 10:00am
12 Blog: Gardening in Central Oregon
15 Redmond Demo garden workday, 9:00am
16 Alpenglow Demo Garden workday, 10:00am
17 Hollinshead CG volunteer meeting, 10:00am
17 Discovery Park CG volunteer workday, 6:00pm
26 Blog: Gardening in Central Oregon

OMGA Mini-College

by Karen Simonet

The "Joy of Gardening", aka Mini-College will be held July 7-8 at the OSU Campus in Corvallis. Please visit the OMGA.org website for details, class registration and lodging options, etc. Each year, at the conference, there is a silent auction. Each chapter is asked to donate items of about \$25-35 each, and a total value of \$250. If you have items to donate, we can accept them until June 15. Please contact Karen Simonet (emsnurse1923@gamil.com) or Kris Knoernschild (oaktree2448@gmail.com) with any questions.

Want to go to Mini College but need funds? COMGA offers scholarships.

To apply, complete the form and send it to janetdart@gmail.com.

The form (COMGA Mini-College Assistance Application) can be found in the Membership section of our website (www.gocomga.com), under Forms.

Discovery Park Community Garden – DPCG by Gary Weber

Gardening is getting underway in earnest! In spite of the cool weather, (and a frost May 23rd) gardeners have been preparing their raised beds for planting. A number of gardeners have planted lettuce, spinach, radishes and other cold tolerant veggies. Emergence looks good, but



growth has been relatively slow. The irrigation system is on to help seed germination.

One of the more interesting activities these days are the slow but steady appearance of a

new style of raised bed enclosures. Each year a few more get built, and each subsequent wave benefits from the design improvements made the previous seasons.

Another exciting happening is the spring cleaning and rejuvenation that our pollinator demo garden has undergone. It really looks great.



Our MG volunteers and MG Trainees have garden sections assigned and are ready to assist gardeners.

We volunteers at Discovery are looking forward to an excellent growing season!

Contact discovery@gocomga.com



Newsletter Notes: Deadline for submission of material to the HoeDown is 1st Friday after the board meeting. All articles, notices and other journalistic efforts are welcome and appreciated. All information provided by the "HoeDown" is believed to be accurate but readers must assume all responsibility for their own actions based on this information.

Occasionally a product or company may be named in an article but this does not necessarily constitute an endorsement of said product.

Published by : COMGA Send ideas & articles to:
HoeDown Rocky Bessette, rockyb820@gmail.com

Master Gardener Advanced Training Opportunities – June 2023

If you're looking for available opportunities to get in your 10 hours minimum of advanced training/continuing education to remain certified or to further your knowledge of this fascinating and boundless subject matter, listed below are some options to consider. The list will be updated monthly.

COMGA will hold a quarterly meeting on Thursday, June 29. All MGs and trainees are invited. This will be an evening meeting, start time 7:00 pm, in the classroom in Building 3 at the Extension Office. We'll have some project reports and other business first up, followed by a training session. The training will be a trivia contest created by Nicole Sanchez, Associate Professor of Practice, Horticulture, Klamath Basin Research & Extension Center in Klamath Falls. We'll be doing the trivia contest she staged in January called "Vegetable Victories: Successful Food Gardening." The contest will be worth one hour of MG continuing education. We won't be dividing into teams; this will be you against everyone else. More details will follow in a separate email. We'll do a potluck dessert for this meeting, so bring something to share. Coffee, hot water for tea, some sodas and water will be provided.

OSU Extension has the 2021 and 2022 Level Up Series presentations available to view at your convenience. <https://extension.oregonstate.edu/mg/growing-oregon-gardeners-level-series-2023> These are approved for advanced training and most are about an hour in length. Click the buttons on the lefthand side of the page and you'll be able to see the list of presentations for 2021 and 2022. You can register for 2023 classes and take part as they occur, or go in later to view them. The next class is on June 13 entitled "The Bees' Needs: Make Your Backyard a Sweet Spot."

All on-line modules designated for the new MG training class are available for you to view for credit. All modules have been released for viewing. Modules are: Soils, Botany Basics, Pesticide Safety, Integrated Pest Management, Lawn Care, Diversity Equity and Inclusion, Native Plants, Using ECCO, and Plant Identification. You can now access these by going into the new VicNet volgistics timekeeping system and click the HOME button near the top of the page and look for the link for the MG Training Modules. If you don't know how to get in, contact Rachel at the Extension office for help. Continuing education hours vary based on the length of the module.



OSU Demo Garden

OSU Demo Garden: Come join us June 6th at the Demo Garden. It's that time of year, we will be creating containers of "thriller, fillers and spillers," and how to use color and texture to create your perfect design. We have 7 containers to create for the OSU Extension entrance. Bring your own tools, water, etc. We will supply the containers, soil and plants. Come join the fun!

Vicky & Karen

Alpenglow Demonstration Garden

We had a great turnout for the planting of the native garden at Alpenglow on May 24! After a brief planting demonstration by Amy Jo, we proceeded to plant roughly 60 plants, including a beautiful Royal Raindrops crabapple tree. We are looking forward to seeing these small plants grow and thrive in the coming years. We also installed signage that identifies each plant. At our workday this week we will be planting the cultural garden. This year we are featuring a Latinx garden which will put the spotlight on plants that are culturally significant to that region. They include beans, squash, corn, tomatoes, tomatillos, peppers, cilantro, a lime tree, marigolds, dahlias, and bougainvillea. We will also create signage that explains why these plants were selected and the significance they have in those countries.

Also at this week's maintenance day, in addition to regular weeding, deadheading and pinecone and pine needle pickup, we will be contouring the soil around the seven trees planted last year by Bend Park and Recreation. The way the soil was mounded was not conducive to the irrigation bubblers working properly. We will also wrap the trees in caging to protect them from deer. If you haven't already done so, come and visit the garden - it is blooming and beautiful!

Lisa Nakadate & Janet Dart

COMMUNITY EDUCATION

The Winter and Spring formal classes were completed at the end of the Home and Garden Show. The Community Education Project Coordinators will meet June 22 to discuss our attendance records, Evaluation data, and course topics requested in order to plan for next year. We already see the need for a practical seed saving class, which we hope to get developed and approved to deliver in September. It will be a skills demo class similar to the Seed Sowing & Transplanting classes we ran in February and March.

During the summer we plan to support the Demo Gardens events: The June 3 Garden Fair, The June 4 Water Wise Field Day, the July 1 Garlic Talk at DPCG, and other outreach events to be planned by the Garden Coordinators.

Cher
Cheryl Hinerman



The crew at the planting of the naïve garden at Alpenglow



Hard at work planting the natives at Alpenglow



ROCKY MOUNTAIN IRIS

by Judy Shearer

I have seen irises in bloom all over town but I am not sure that their looks can beat our native iris, Rocky Mountain Iris, *Iris missouriensis* (see photo below). We saw fields of them on our way to Big Summit Prairie in Crook County. Similar to ornamental varieties, it is a rhizomatous perennial in the family Iridaceae. Its other common names include western blue flag and Missouri flag. It is native to western North America growing at high elevations in mountains and alpine meadows and extending down to the coast. It grows up to 16 inches high with leafless flower stems. The linear basal leaves are narrow measuring up one inch wide. The inflorescence consists of one or two flowers, rarely more. Each flower has three light to dark blue petals and three reflexed sepals with purple streaks and a yellow base. Always found in moist areas, it extends from Alaska to Baja California and east to Missouri. The genus, *Iris*, honors the Greek goddess Iris. The specific epithet *missouriensis* is from Meriweather Lewis who collected the plant along the Missouri River. Native Americans used the rhizomes to treat toothaches and the leaves for weaving. One of the major pollinators are bumblebees that land on the sepals and push their way under the petallike segment to get to the nectar.



Photo by Samantha Shearer

References:

Fagan, D. 2019. Wildflowers of Oregon. Falcon Guides, Guilford, CT.

Turner, M., and P. Gustafson. 2006. Wildflowers of the Pacific Northwest. Timber Press Field Guide, Portland, OR.

Oregon Wildflower APP.

LOWDOWN FROM THE BOARD

June 1, 2023

The meeting was held in person at the home of Kris Knoernschild .

MEMBERS PRESENT: Janet Dart, President; Tim Schindele, VP Master Gardener Ed.; Marilyn Clark, Treasurer; Karen Simonet, OMGA Representative; Kris Knoernschild, Historian; Deborah Goodall, Membership; Rocky Bessette, Communications, Nancy Glick, Past President; Betty Faller, Beckie Moran, Jan Even, Kirsten Hinton, Pat Kolling, Fritzi Nelson, Berta Keller, Toni Stephan, Liz Brackmann, Carolyn Fauerso, Kathy Ketchum, Laura Nicholson, Patty DeGaetano, Laurie Eimans, Anita Cook, Joan Sciacca, Lisa Nakadate, Shawna Larson, Marissa Wright and Lea Dahlen.

The minutes of the meeting held May 4, 2023, were approved as submitted upon motion by Karen Simonet and seconded by Deb Goodall.

OSU Report: No report.

BOARD REPORTS:

President's Report: Janet reminded the Project Coordinators that the nominations for Trowel Awards are due to her by June 15th. The forms are on the COMGA website, members section under forms.

Treasurer's Report: Marilyn stated that the May and YTD reports were emailed to Board members this morning. Some of the highlights included June Garden Fair plant orders received of \$4,700, and vendor fees of \$225; row cover sales of \$670; soil thermometer sales of \$100; expenses of \$590 for 200 units of soil thermometers.

Marilyn asked the Board to document the email vote completed May 16 to authorize the purchase of \$705 in row cover in today's meeting. Upon motion by Rocky, and second by Nancy, the Board unanimously approved the purchase of row cover.

Jan Even asked if we had ordered credit cards for COMGA purchases. Janet and Marilyn will schedule a time to discuss further, so we have not ordered credit cards.

Membership Report: Deb Goodall reported we have 72 COMGA members, (of which 12 are Associate members, and 18 certified in 2022), and 49 trainees.

Master Gardener Advanced Training Report: Tim Schindele commented that his full report was sent to the HoeDown, but highlighted the numerous online training opportunities on Zoom (Spring Seminar) and the Level Up Series classes. A special night has been planned for Thursday, June 29th at 7:00 p.m. in the OSU Ext. Classroom. It will be a quarterly meeting (with some business) combined with a trivia contest on veggie gardening, good for one hour advanced credit. It will also be a dessert potluck.

Continued on page 6

LOWDOWN FROM THE BOARD Continued

Community Education: Cher is unable to attend but sent her report earlier. With winter and spring classes over, the committee will meet June 22nd to review attendance and topics requested and begin planning for next year. We hope to get approval for a seed saving class this September. Upcoming events support include the June 4th Water Wise Field Day at Hollinshead, and a garlic talk at Discover Discovery Park Community Garden July 1st.

Historian: Kris Knoernschild appreciates any photos members contribute. She will be at the Garden Fair Saturday and hopes to attend the Hollinshead Water Field Day Sunday.

OMG Representative: Karen Simonet stated that the annual awards nominations were received, and the results will be announced this month. OMGA Mini-College is July 7 – 8. Items for the OMGA silent auction can still be brought to Kris Knoernschild by June 15th. Janet reminded everyone that the COMGA budget included scholarship funds for anyone wishing to attend mini-college and who may need a little financial support. The application forms are on our website. The next OMG meeting will be June 2nd.

Communications: Rocky Bessette asked all members that if they have an announcement they would like to be sent out the COMGA membership to please send them to her with the announcement topic in the subject line so she can forward it to membership. If anyone has a submission for the HoeDown, send them by Saturday following the Board meeting.

T-Shirt orders will be delivered soon, and Rocky will send out a notice of a couple of dates to pick them up.

Nancy Glick reminded members of the difference between COMGA and OSU Master Gardeners. Membership in COMGA is free during trainee year, but membership costs \$15 (current year) annually. Rocky only sends emails to COMGA membership, which includes announcements, chapter business and HoeDown newsletter. Whereas OSU maintains their own distribution list for all certified MGs. If trainees wish to maintain COMGA membership next year, they need to register in January.

ACTION - INFORMATION ITEMS:

Website: Nancy Glick has been maintaining the COMGA website by herself and is ready to turn it over to a team. The website has roughly 20 pages including seasonal items such as the plant sale and spring seminar, community garden forms and plant databases. A public side and the membership side. The membership part has forms for COMGA, policy and procedures and projects. Nancy is planning to schedule a training session in June and is inviting members with knowledge of websites or and interest to contact her. Joan Sciacca has expressed an interest in being the lead.

Nancy asked the Board to approve the Wix upgrade expense of \$68.14 since it put us over budget. Upon motion by Rocky and second by Kris, the Wix expense was approved unanimously.

Alpenglow Demo Garden: Lisa Nakadate is co-chairing the garden with Janet Dart. She reported the main demo garden was planted last year, and most survived the winter.

The native garden was planted last month, and most plants have a tag. The planned cultural garden will be planted next Wednesday.

OSU Demo Garden: Vicky Kemp was absent, so Karen Simonet reported the volunteer response has been phenomenal so far and they got a lot done. Amy Jo came out last workday and talked about the plantings for the new building. The next workday June 6th will include a demo on building a container garden. We have seven containers to plant. Bring your work tools and be ready to pull weeds too.

June Garden Fair: Tim Schindele spoke in Vicky's absence. Vicky is appreciative of all the volunteers working toward the event. Be there bright and early tomorrow.

Hollinshead Water-Wise Garden: Pat Kolling said the garden is looking good. They are working toward the Sunday, June 4 Waterwise Field Day, in conjunction with the City of Bend. There will be raffles for water conservation items and demos on irrigation. Next year, the team will reserve the park for the second Saturday in June to allow time between Plant sale and WW Field Day.

High Desert Garden Tour: Toni Stephan spoke in Liz Anderson's absence. There are seven gardens on the tour this year; two are near Hollinshead, and five between Mt. Washington Drive and towards Tumalo. Date is July 15th, 9 am – 3:30 pm. Many volunteers will be needed to assist at the gardens on tour day. Invites will be sent out soon and you sign up through VicNet. There will be three shifts per day, and two people are needed each shift. Perk: Volunteers will receive a free pass to see all the gardens. Tickets will be sold online.

Hollinshead Community Garden: Kirsten Hinton stated that Amy Jo visited the garden and suggested some plot size changes for the new raised beds. So, she will be working on a redesign.

Discovery Park Community Garden: Will need to purchase a garden shed soon.

Home & Garden Show: Vickie Minor reported it was very successful.

OPEN FORUM

Continued on page 7

LOWDOWN FROM THE BOARD Continued

Pat Kolling reported on the OSU Extension Advocacy Task Force. The response was so good that the Master Gardener's are in the running for largest letter campaigners outside of guns and abortion.

Betty Faller asked if we can do something to improve the sound system at the Extension training center for Zoom meetings. Jan Even suggested we contact Stuart to check into options. Stuart helped us set up the systems for recording our Zoom demos.

NEXT MEETING

July 6, 2023, at Liz Anderson's home, 12500 S. Powell Butte Hwy, Powell Butte, Oregon. 5:00 Garden Tour and refreshments (Potluck) and 6:00 meeting time.

There being no further business, the meeting was adjourned at 7:52 p.m.

Respectfully submitted,

Marilyn Clark for Cher Hinerman

"Plant Diseases: Bacteria, Viruses and Nematodes

by Deb Goodall

While not as prevalent, bacteria, viruses and nematodes pack a powerful punch. Fortunately, many of the good gardening practices that help us prevent fungal diseases also keep bacterial infections, viruses and problematic nematodes at bay.

Bacteria are found in every environment on the planet and it's estimated there are 40 million bacteria in a teaspoon of soil. Many help our gardens by decomposing waste, managing destructive insects and fungal diseases, and making nitrogen more available to plants. But there are about 200 bacterial plant pathogens that can cause serious and often fatal plant diseases, such as blights, cankers and rots. These pathogens can reproduce at an astounding rate, quickly overwhelming their hosts' defenses. Some are soil-borne; others are transported by wind-driven rain or transmitted by insects. Since there are no cures for bacterial infections, preventive measures are extremely important.

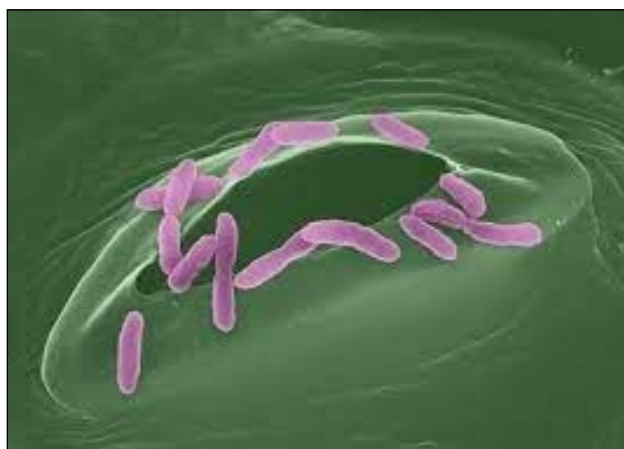
There are more than 2,000 known viruses. While beneficial fungi and bacteria play several important roles in the garden, viruses are mostly bad actors. These pathogenic parasites cause disease in their unwilling hosts, entering through wounds or with help from insects and nematodes. Once transmitted, the infection spreads rapidly, moving from the original entry site to the phloem, thus rapidly impacting the entire plant. Viral infections mimic other conditions and are therefore difficult to diagnose. They are often confused with herbicide injury

and nutrient and other environmental stress. As with bacterial infections, there is no cure. Examples of viral diseases include rose mosaic and spotted wilt.

Nematodes, worm-like microscopic creatures, are important players in the soil ecosystem. As they feed, they break down their food and release nutrients into the soil. A few hundred of the 20,000 known species cause plant disease. Their needle-like stylets pierce plant cells and inject toxic saliva that causes plant tissue to swell, distort and eventually die. Disease symptoms include stunting, yellowish leaves, few flowers and fruits of poor quality.

Preventive measures are essential to minimize disease threats – whether fungal, bacterial, viral or nematode-caused. Start by choosing resistant cultivars and disease-free seeds, plants and bulbs. Manage your soil, making sure your plants are getting the nutrients they need. Water wisely. A mantra in the control of bacterial disease is "If it dries, it dies." Whenever possible use irrigation systems that water the root zone, not the leaves and stems. And always let your soil dry out between waterings. Rotate your vegetable and annual plants and mix it up: use a variety of plants so a disease can't as readily sweep through your garden. Be careful not to wound plant stems, trunks and roots and address undesirable insect populations promptly.

To control diseases once they're evident, remove all diseased plant material and dispose of it correctly. Sanitize your garden tools: shovels, pruners and saws, and clean up garden debris at the end of the season.



Colchicum and Saffron Crocus

by Kathy Geary

While most gardeners are familiar with spring-flowering bulbs, such as tulips and daffodils, many don't realize that some bulbs actually bloom in the fall. Fall-blooming bulbs make unexpected, colorful additions to the fall garden. The attractive flowers of fall-blooming colchicum and saffron crocus make welcome additions to the fall garden.

Colchicums are members of the lily family and not to be ingested as they have toxic qualities for both you and your pets. If it is any consolation, deer do not favor colchicums for the same reason. Colchicum plants are sterile male triploids meaning they cannot reproduce via seed, but must be propagated through their bulb-like root structure called corms. The leaves of most colchicums emerge in early spring and die back by early summer. Crocus-like flowers appear without foliage in fall. They are also known as the autumn or meadow crocus.

The autumn crocus should be planted in well-drained soil- late summer or early fall- in full sun to partial shade. Good planting sites include naturalized areas under the filtered shade of large trees and shrubs, in rock gardens, or amongst low-growing groundcovers. For the best visual display, plant colchicums in clumps. Corms should be planted 2 to 3 inches deep and 6 inches apart. Colchicums are hardy to USDA Hardiness Zone 5 so are a good choice for our Central Oregon climate.

This year I am investing my time and effort to introducing the edible Saffron Crocus into my garden. Though I am fortunate to have consistent flow of saffron in my kitchen from begging my family and friends to bring the spice home from their trips abroad, I seem to always run low when I most want that color and flavor that only saffron can add to my culinary creations. The saffron crocus is a small plant with several slim, green grass-like leaves growing from a globe-shaped corm. Plants reach 6 to 12 inches tall, and 2 to 4 inches wide. Each plant produces 2 to 4 large lavender to violet-blue flowers, with a sweet, hay-like fragrance. Their leaves appear in early spring and grow until hot weather induces summer dormancy. A second crop of leaves appear in fall, followed shortly by flowers.

Flowers are the key to saffron production. Each flower is made up of the showy outer violet-blue petals. Inside the petals are three short, yellowish male pollen structures called stamens, and three very long blood-red stigmas. They are the female pollen receptors. The stigmas are harvested with tweezers, shortly after the flowers open.

Plants are hardy in Zones 5-8, and prefer full to partial sun. For best plant growth, choose a protected planting site that gets at least five or six hours of direct sunlight per day.

Saffron crocus require well-drained soil, especially in winter. Amending the soil before planting will protect against bulb rot. Plant the corms about 2 inches deep in groupings. The flat side of the corm, where the roots and growth plate are located, should be pointed down in the planting hole. Plants are quite drought tolerant once established, so don't overwater!

If your site is good, and the plants are healthy, they will multiply fairly rapidly. Dig up and divide the corms every 2 to 5 years, during their late July or August dormant period.

Finally, finding saffron crocus can be tricky. Not many garden centers carry a specialty bulb like saffron crocus, so you may need to order them through a specialty bulb catalogue if you can't find them locally.

Begin browsing now through bulb catalogs and garden centers for colchicums and saffron crocus. They make spectacular additions to the fall landscape.



Colchicum



Saffron crocus

Pine Bark Adelgid

by Judy Shearer

The adelgid found on the blue shag pine in the Alpenglow garden is called the pine bark adelgid, *Pineus strobi*. The adelgid is a native insect found on Eastern White pine (*Pinus strobus*) whose range is basically the eastern half of the U.S. Blue Shag is a dwarf version of the Eastern white pine. The adelgid is a relatively new arrival in western U.S. Most likely it was moved outside its native range through movement of infested Eastern white pine and other hosts. The first report was from a specimen collected in Oregon in 2001, mounted on a slide, and deposited in The National History Museum in Washington D.C. Live specimens were found on western White Pine (*Pinus monticola*) collected in Washington in 2015 and 2016 and deposited in the STAR museum in Arkansas.

The pine bark adelgid, *Pineus strobi*, somewhat resembles an aphid but has shorter antennae. (see pictures below). Adult pine bark adelgids are small dark (purplish to yellow) somewhat teardrop shaped insects found within white wooly material on stems and trunk. Eggs are milky to light brown but darken as the embryos age. The first stage called a nymph is similar in appearance to the adults but smaller. At first the nymphs are naked, but as they mature they begin to secrete white threads forming white tufts found at the base of needle clusters or on the stems.

Pine bark adelgids can overwinter in all stages, but primarily as immature females. In late winter, development resumes and each female lays up to 24 eggs inside the wooly mass. Then she dies. From the eggs, both winged and unwinged forms arise. Of the several forms only the crawler stage and winged forms can migrate. The stationary form continues to reproduce parthenogenetically (asexually), giving rise to five generations per year. By late winter/early spring populations can become abundant but decline rapidly when natural predators become active.

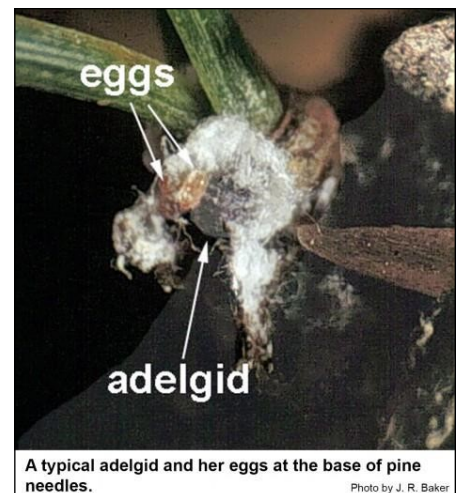
Found primarily on white pine, the adelgid can infest Scots, Austrian, and other pines. Infected needles may yellow resembling chlorosis. More unsightly than injurious on older trees, newly planted young trees can be seriously damaged. Similar to aphids, the adelgids feed on the phloem tissue sucking the sap. Natural predators include hover flies and other flies and lady beetle larvae. Trees that are heavily infested should probably be sprayed. Horticultural oil can be applied during winter before new growth appears in the spring. Insecticidal soaps are effective as are the horticultural oils. Oil sprays may damage white pines during the growing season especially in dry weather. Systemic pesticides include the imidacloprids, pyrethrins, and other contact pesticides.

Non chemical management techniques also include: Hand wiping, washing with a strong stream of

water, and where practical remove infested branches or if need be the entire tree. In the Alpenglow garden, hand washing seems the most logical approach because the infestation was caught early.



Adelgid



A typical adelgid and her eggs at the base of pine needles.

Photo by J. R. Baker



An egg mass of the pine bark adelgid opened to show her eggs.

Photo by J. R. Baker



Pine bark adelgids on the trunk of a small eastern white pine.

Photo by J. R. Baker