

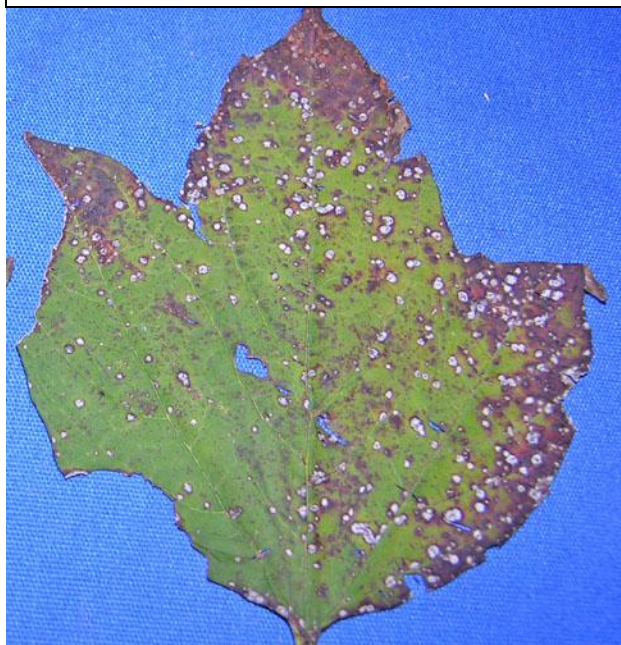


This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

Viburnum

Algal leaf spot, caused by the alga *Cephaleuros virescens*, has a wide host range. It may infect magnolia, camellia, apple, aucuba, azalea, blueberry, bougainvillea, boxwood, cleyera, crape myrtle, fig, gardenia, holly, Indian hawthorn, jasmine, juniper, leucothoe, magnolia, oak, orchid (*Cattleya*), pecan, philodendron, photinia, privet, pyracantha, rhododendron, schefflera, sycamore, viburnum, and wisteria. Symptoms are raised leaf spots that develop as gray, pale green or pale red, rough, superficial, netlike circular spots with wavy or feathered margins. When algal spots are colonized by fungi they are referred to as being lichenized. Control consists of avoiding overhead irrigation, cleaning up fallen leaves, and the application of a copper fungicide every two weeks during cool, wet weather.

Algal leaf spot



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Algal leaf spot



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Rose of Sharon

Rose of Sharon shrubs are one of our most reliable landscape and garden plants. They have few serious diseases and provide a long season of bloom. Occasionally, however, the clinic receives samples with the complaint of buds refusing to open. The culprit is usually found to be blossom midges. Midges are tiny members of the fly family. Midge maggots feed inside unopened flower buds, causing deformed, discolored buds and blossoms, and premature bud or blossom drop. Heavily infested buds may have several dozen maggots feeding at a time. The adult female deposits masses of white to cream colored eggs into the open tips of flower buds. The microscopic eggs hatch within 24 hours into maggots that move into the bud. Newly hatched maggots are white but turn yellow as they feed. After 5-7 days they leave the buds and pupate in the soil. Gnat sized adults that resemble very tiny mosquitoes emerge in 14-21 days to breed and begin the cycle again. Midges are difficult to control as they



spend most of their life cycle protected inside the flower buds. Sanitation is critical. Clean up all fallen and unopened buds on the plant. Dispose of these infected buds off the property. Use Bayer Advanced Power Force Multi-insect Killer. This is a granular blend that should be applied in the spring when the bushes begin to leaf. The second product from Bayer is Bayer Advanced Garden Rose & Flower Insect Killer. This is applied as a spray. If you have an infestation of midge, multiple applications will be required every 10 days. Also be aware that Rose of Sharon grow and flower best with regular fertilization. Submit soil for soil test to check pH and nutrients.

Rose of Sharon buds with midge infestation



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Midge maggot



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Midge adult



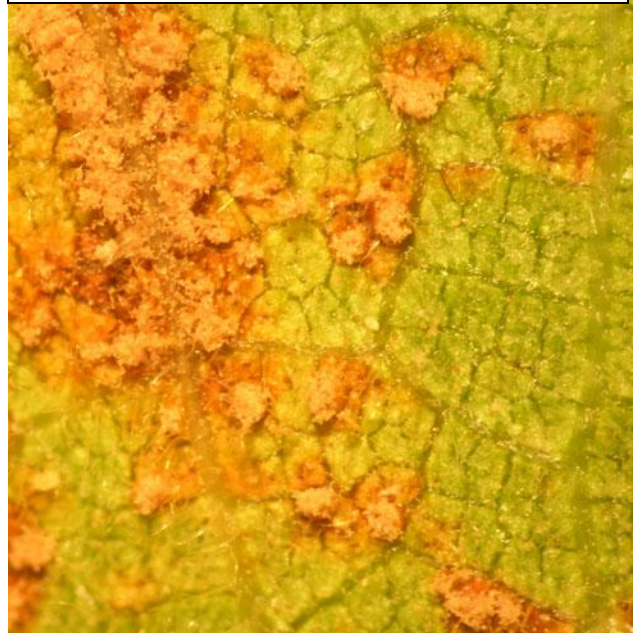
Susan Ellis, USDA APHIS PPQ, Bugwood.org.jpg



Fig

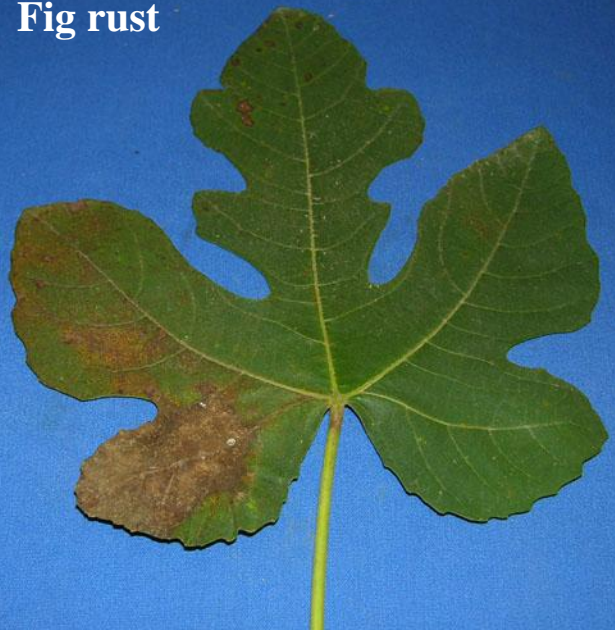
A common leaf disease of fig is Fig rust, caused by *Physopella fici*. Symptoms begin as small, angular, light yellow-green flecks on the leaves. The spots turn yellow to orange-brown, enlarge and spread as the growing season progresses. Rust pustules may be observed on the undersides of the leaves. Heavily infected leaves die and fall from the tree prematurely. The tree may be completely defoliated in two or three weeks. Defoliation may cause the tree to become susceptible to cold injury when it tries to replace the lost foliage late in the season. Fig rust can be controlled with one or two applications of neutral copper spray in May or early June. The first application should be made when the first leaves have reached full size. The second application should follow in 3 to 4 weeks.

Fig rust pustules sporulating



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Fig rust



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Juniper

Juniper bud mites, also known as Dwarf tip mites, belong to the family Eriophyidae. Eriophyidae mites are extremely small, carrot shaped, and have two legs instead of the eight found in other types of mites. Many members of this family of microscopic mites live in buds or on foliage. Some produce galls on host tissue. The Juniper bud mite, *Trisetacus spp*, kills new vegetative growth on junipers and causes galls in juniper berries. The type of damage done is cultivar dependent as some varieties are more sensitive than others to the chemicals in the mite saliva. Mites feed by piercing the needles or buds with their scissor-like mouthparts and injecting their saliva. They then feed on the cell contents. Eriophyid mites can be difficult to control. All galls should be removed and destroyed if practical. Miticides containing abamectin (Avid) or fine horticultural oil kill these mites.



Juniper bud mite damage



Eriophyid mite

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Juniper berry galls

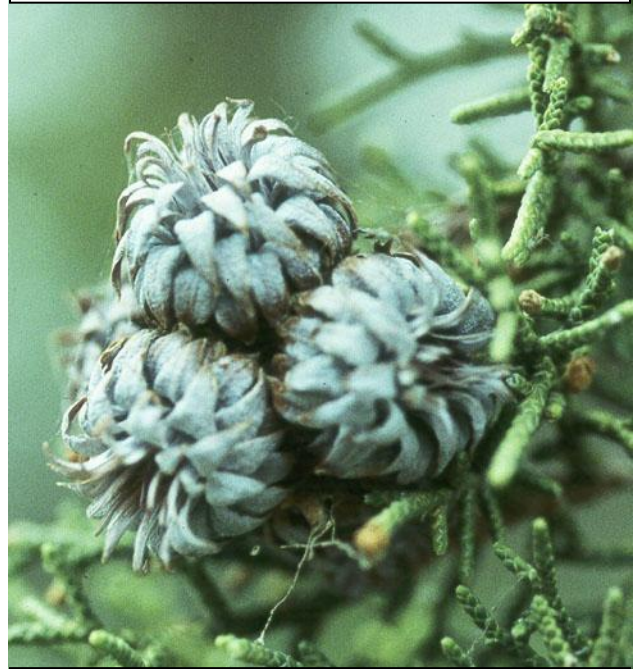
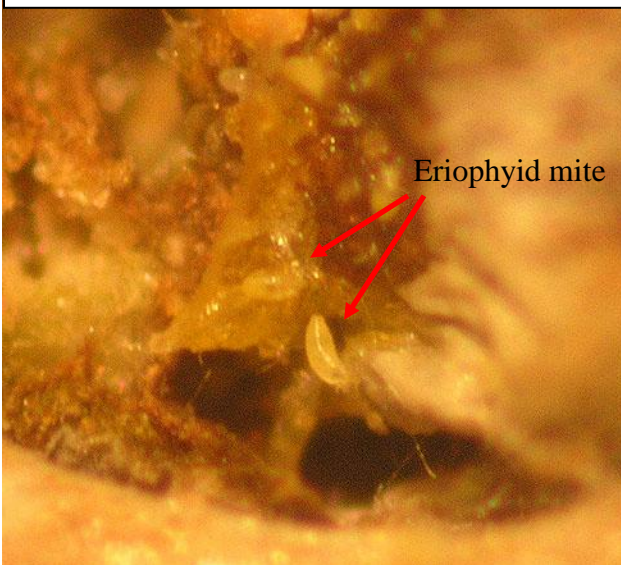


Photo courtesy of Curtis Swift, Area Extension Agent CSU

Juniper bud mites



Eriophyid mite

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