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HW4
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Juniper Scales (*Carulaspis juniperi*)

On the Juniper shrubs between CNR and the Ag Science building, tiny, white, circular waxy bumps were visible scattered on the branches. Most of the scales were located on the last six inches of the branches. Tiny spots of chlorosis were visible on the Juniper needles; however, the plants did not appear to be suffering in health. These waxy bumps are called Juniper scales (*Carulaspis juniperi*), and can be major plant pests under the right conditions.

Juniper scales are pests of *Juniperus* species, especially Savin and Pfitzer junipers. The scales may also attack other coniferous hosts. Juniper scales suck the plant juices from the needles with needle-like mouthparts. This

feeding can cause chlorosis, reduced vigor and slowed growth. Small populations have little effect on the host, however, scales can reproduce rapidly. An infestation could cause a general discoloration of the host or dieback of whole branches. The presence of scales can also promote the growth of sooty mold on the needle surface. The honeydew (insect excrement) provides an ideal environment for the pathogen. The host junipers did not appear to be under any stress, nor was their noticeable aesthetic damage on the needles. The

scale population was small- approximately 2 scales per six inches of branch.



Figure 1: Terminals of host branches with scales

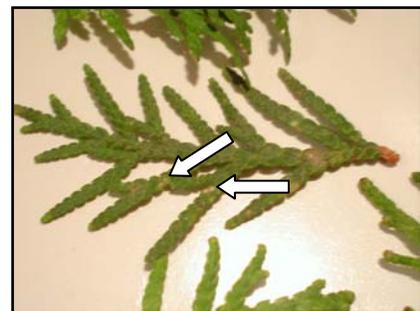


Figure 2: Scales on Juniper needles.

The management of Juniper scales involves regular monitoring and scouting for early detection of any scales. A few scales are not a problem; however, because they reproduce quickly, frequent checks are a good idea to prevent scale infestations. Thresholds have not been developed for Juniper scales; therefore the landscape worker should use their best judgment when determining if the population is growing too large. Once a problem arises, there are a few management options available to control the pest. Commercial insecticides such as insecticidal soaps and oils are low-toxicity chemicals that can be very successful in decreasing the scale population. The most effective time to spray is in the spring, when the eggs are hatching, or in late spring early summer when the larvae are crawling around on the leaves. Biological controls may also be used. Scales have many natural predators and parasites. Predators can easily be purchased through garden supply stores or over the internet.

References

Appendix- Juniper Scales Lab, Ent 322. Ed Bechinski, professor.