



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.

## Squash

Whiteflies are a serious pest in many field and greenhouse crops. They damage plants by injecting a toxin into plant cells and feeding on the contents of the cells. Symptoms are stunting, yellowing, wilting, and plant death. The Silverleaf whitefly, *Bemisia argentifolii*, has become common across Arizona, California, Florida, Georgia, Louisiana, New Mexico, and Texas. We have not verified this species in Arkansas, but are seeing plants with symptoms. Feeding by the Silverleaf whitefly causes striking symptoms on young squash plants. Their feeding triggers the upper layer of epidermal cells in the leaf to separate from the lower layer of cells, producing a silver or white leaf color. Stunting and serious production loss may occur. Once the whiteflies are controlled, new leaves should be normal. However, control of whiteflies is not easy. Populations have built up resistance to many insecticides. Also, many natural enemies are killed by insecticidal treatments. Yellow sticky traps help somewhat but cannot control large populations. Insecticidal soap or neem oil may be used effectively, but be sure not to use soap when temperatures will be above 80°F, as leaf burn may result. You may also use Bayer Advanced Fruit, Citrus and Vegetable Spray.

## Squash-Silverleaf whitefly damage-*Bemisia argentifolii*



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## Potato

Phytoplasmas are gram-positive bacteria in the class Mollicutes that lack the classic bacterial cell wall. They have an enormous host range of over 300 plant species from 98 families. They cause diseases broadly known as Aster Yellows. In potato, the common name of phytoplasma diseases are 'Potato witches' broom', 'Potato stolbur', 'Potato purple top wilt', 'Potato marginal flavescence', 'Purple top roll', and 'Potato phyllody'. Symptoms include stunting and bunching of apical growth, rolling of leaflets, aerial tubers, swollen stems, and bud proliferation. Leaflets may be yellow or purple in color. Tubers from infected plants may give rise to both normal and diseased plants and tubers. There is



no cure for potatoes infected with phytoplasmas. Phytoplasma diseases in the United States are vectored by leafhopper insects. Insect control is considered the main control method. Insecticides containing permethrins or spinosad are recommended for commercial growers. Sevin or M-Trak is recommended for homeowners. Practice good weed control to eliminate weed hosts for leafhoppers.

### Potato Aster Yellows- Phytoplasma disease



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### Pine

Many homeowners do not realize the danger of using glyphosate herbicide around ornamentals. Evergreens are susceptible to damage as well as broad leaved plants. Glyphosate can drift for hundreds of feet from the point of origin if there is any breeze at all. None-the-less, we have been receiving samples of ornamentals where Roundup has been used directly in or around the bed. This is a systemic herbicide. If it does not kill the plant immediately, there may be symptoms of the damage for several years following application. Depending on species of plant affected, symptoms may be yellowing, wilting, mottling, leaf distortions, and witches' broom. Poisoned plants should be supported with adequate water and fertilizer (per soil test).





Sherrie Smith

### **Pine-Roundup damage-Glyphosate**



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### **Dogwood-Roundup damage-Glyphosate**



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### **Pine-Roundup damage-Glyphosate**



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### **Rose-Roundup damage-Glyphosate**



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