

Progress Report for Elvenia J. Slosson Endowment Fund  
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This is the 3<sup>rd</sup> year report for the Elvenia J. Slosson Fund Endowment for the project “Screening Plants for Resistance to *Armillaria mellea*” covering the period from November 2005 to November 2006.

This is a modified continuation of a project started in the 1930s by H. E. Thomas at the U.C. Deciduous Fruit Station in Santa Clara where plants were tested by growing them in an area known to be infested with the fungus. When he left in the 1940s, the project was abandoned. After starting in 1952, I finished digging and rating the remaining plants and restarted the project. Though early procedures were not found, I planted 10 plants of each species to be tested. With each plant, 2 pieces of inoculum, each from a different isolate of the fungus and grown on 5 inch pieces of branches were put in when planted. Records were kept of growth, death from the fungus, and death from other causes for 10 years at which time remaining plants were removed and rated. New plants were then started again. This continued until the projects at the Deciduous Fruit Station were closed in the 1990s. The results were published and were revised a number of times, the last in 1979 (2).

Because of the constant demand for more knowledge about the resistance or susceptibility of trees and shrubs that can be used in the landscape, a decision was made to continue the testing using a proven technique developed to inoculate plants in pots in the greenhouse. Two isolates of the fungus, proven to be virulent were used (1). A request was made of the Slosson Fund for support and was granted for the year 2002-2003. This was renewed for 2003-2004 but no notice was received for 2004-2005. However, it was renewed for 2006-2007, this being its last year.

Inoculated plants which were rated this last year and the determinations for plant recommendations are as follows:

Plant Species	Number killed	Number infected, not killed	Number not infected	Rating
<i>Cupjea llavea</i>	4			Susceptible
<i>Cupjea oreophilla</i>	10			Susceptible
<i>Euonymus fortunei</i> 'Green Lane'	10			Susceptible
<i>Euonymus kiautschovia</i> 'Manhattan'	7			Susceptible
<i>Euryops pectinatus</i>	7			Susceptible
<i>Itea virginica</i> 'Henry's Garnet'	10			Susceptible
<i>Juniperus horizontalis</i> 'Dry Ice'	10			Susceptible
<i>Leonotis leonurus</i>	7			Susceptible
<i>Loropetalum chinensis</i>	7			Susceptible
<i>Photinia fraseri</i>	7	1	2	Susceptible
<i>Phygelius capensis</i>	10			Susceptible
<i>Platycladus orientalis</i> 'Golden Rocket'	9			Susceptible
<i>Raphiolepis umbellata</i> 'Blueberry'	7	1	2	Susceptible
<i>Thuja plicata</i> 'Green Giant'	9		1	Susceptible
<i>Tibouchina urvilleana</i>	10			Susceptible
<i>Campsis X tagliabuana</i>		10		Moderately Resistant
<i>Osmanthus</i> 'Goshiki'	2	3	2	Moderately Resistant
<i>Wisteria floribunda</i> 'Ben Fuji'	1	2	7	Moderately Resistant
<i>Buxus microphylla japonica</i> 'Winter Gem'		1	9	Resistant
<i>Clematis</i> 'Harlow Carr'		1	9	Resistant
<i>Clematis sinemor</i>			9	Resistant
<i>Houttuynia cordata</i>			10	Resistant

The reason that 10 are not listed for all is because some have not been checked completely as yet.

The project is continuing and the plan is to continue it even after the grant is finished.

#### Literature Cited

- Raabe, Robert D. 1969. Cultural variations of *Armillaria mellea* not related to pathogenicity and virulence. Proceedings First International Citrus Symposium. Vol. III: 1263-1272.
- Raabe, Robert D. 1979 (Revised). Resistance or susceptibility of certain plants to *Armillaria* root rot.. Univ. Cal. Division of Agricultural Sciences Leaflet 2591, 11 p.