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ABSTRACTS

BELLOWS, T.S., T.D. PAINE, K.Y. ARAKAWA, C. MEISENBACHER, P. LEDDY and J. KABASHIMA. 1990. **Biological control sought for ash whitefly**. California Agriculture 44(1):4-6.

The ash whitefly, introduced into California in 1986 or 1987, attacks ash as well as fruit and other ornamental trees. Populations have reached extraordinary levels in Los Angeles County. In this report, we briefly describe the origins and scope of the infestation, the pest potential of the species, and current research toward solutions. Pesticide treatment is an option primarily against populations of nursery stock destined for shipment to noninfested areas. Several pesticides have been tested with varying results. None provided completely clean stock. The primary management approach being developed is the importation and colonizing of natural enemies of ash whitefly. Natural enemies include parasitoids, predators and diseases. Future studies will determine the relative effectiveness of different release tactics, such as numbers released, timing of releases, and need for subsequent releases.

HIGGINBOTHAM, J.S. 1990. **Decline**. Am. Nurseryman 172(8):31-34, 36, 38-40.

The harbingers of tree decline are often as subtle as an unnatural thinning of the crown. During the past decade, one species after another has fallen on hard times. Sugar maple, ash, flowering dogwood, oak and several conifers are among the trees in trouble in the eastern half of the US. At times, a single aggressive disease or pest—like chestnut blight or hemlock wooly adelgid—is responsible. However, true "declines" involve tangled relationships between stress and secondary agents. Fortunately, many types of declines that appear insurmountable in the wild prove easier to manage in the nursery or landscape. Control measures that are inappropriate for forest application can often protect valuable crops and specimens. The following overview covers serious instances of genus- and species-specific tree declines now occurring in the US and Canada—and ventures a few predictions regarding decline trends for the years to come.