

Performance of Asian Longhorned Beetle Among Tree Species

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Abstract

Two procedures were evaluated for assessing susceptibility of a variety of tree species to *Anoplophora glabripennis*. In the first procedure, adult beetles were caged with a section of sugar maple, northern red oak, white oak, honeylocust, eastern cottonwood, sycamore or tulip poplar wood and allowed to oviposit. Results showed that females laid viable eggs on sugar maple, red oak, white oak and honeylocust. Oviposition did not occur on cottonwood, sycamore, or tulip poplar. Eighty-seven percent of the first instar larvae survived in white oak, followed by sugar maple (82%), honeylocust (50%), and red oak (39%). In the second procedure, first instar larvae were manually inserted into potted sugar maple, green ash, and red oak trees and allowed to feed for 60 or 90 days. Significantly more larvae survived for 90 days within the red oak (67%) compared to green ash (17%). Larvae recovered from red oak weighed significantly more than larvae from sugar maple or green ash. Larval survival was positively related to height of insertion. These results indicate: 1) controlled laboratory and greenhouse-based procedures can be used to assess tree susceptibility to *A. glabripennis* and 2) *A. glabripennis* will oviposit and larvae can develop in northern red oak for up to 90 days making it a potential host.