

BIOLOGY AND MANAGEMENT OF  
AMUR HONEYSUCKLE (*Lonicera maackii*)

Spencer A. Riley

Dr. Reid J. Smeda, Thesis Supervisor

ABSTRACT

Amur honeysuckle (*Lonicera maackii*) is an invasive weed species that is present in a majority of the United States. This weed has the ability to displace native plant species and develop monocultures in undisturbed areas. Little is known about the biology and control options for this plant. The objectives of this research were to: a) determine efficacy of various herbicides using postemergence and basal bark applications; b) determine the means of seed spread and time at which Amur honeysuckle seeds are viable; c) determine if germination of other species is effected by allelopathic or light variables. Research was conducted during 2010, 2011, 2012 and 2013 at multiple locations throughout central Missouri. Control of Amur honeysuckle was achieved with a foliar application of glyphosate (99 to 100%), aminocyclopyrachlor + metsulfuron (62 to 90%), and aminocyclopyrachlor + metsulfuron + imazapyr (99 to 100%). Greater than 83% viability was observed for Amur honeysuckle seeds harvested in October through November. Greater than 90% of berries were found to be predated from shrubs from September through March. Understory light intensity ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ ) was reduced by shrub cover in the spring (92%), summer (86%), and fall (75%). Lettuce germination (44%) was reduced in shrub infested versus uninfested soils in the spring 12 days after planting (DAP), but not in any other season.