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Title: **Control and reclamation of Russian olive *Elaeagnus angustifolia* L. on saline-affected sites.**

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ABSTRACT

Russian olive *Elaeagnus angustifolia* L. is a non-native deciduous tree that is particularly invasive on wet, saline-affected sites and riparian corridors. Russian olive can be suppressed by various treatments including mowing, cutting, girdling, flooding, ponding, herbicide application, burning, tillage, biocontrol, chaining, and dozing. Effective herbicides include 2,4-D ester, triclopyr, 2,4-D + triclopyr, imazapyr, and glyphosate. Effective long-term control typical involves a combination of treatments that include mechanical removal of top growth followed by chemical treatment of stumps, sprouts, and saplings for 1 to 2 years. Russian olive tolerates soil salinity measuring 8 to 10dS/m, a level too high for the successful establishment and growth of most native trees. Rapid site stabilization and cover of saline-affected sites is primarily with salt-tolerant grasses such as beardless wildrye (*Leymus multicaulus*), tall wheatgrass (*Thinopyrum ponticum*), slender wheatgrass (*Elymus trachycaulus*), tall fescue (*Lolium arundinaceum*), western wheatgrass (*Pascopyrum smithii*), and others. Depending on soil salinity level, shrubs and sub-shrubs such as silver buffaloberry (*Shepherdia argentea*), fourwing saltbush (*Atriplex canescens*), Nuttall's saltbush (*Atriplex nuttallii*), Gardner's saltbush (*Atriplex gardneri*), and winterfat (*Krascheninnikovia lanata*) may also be used. The selection of life form (grass, forb, woody plant), native status (native versus non-native), propagule type (seed, cutting, plant) and stock type (rooted cutting, bareroot, container plant) depends largely on subsequent site management and use.

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