

Published In: Symposia Proceedings, Society for Ecological Restoration.

**PRODUCING WILDLAND ECOTYPES FROM SUMMER CUTTINGS:  
POTENTIAL APPLICATIONS FOR ECOLOGICAL RESTORATION**

Presented at the Society for Ecological Restoration Annual Meeting, March 27,  
2003, Portland, Oregon

Scianna, Joseph D.;

Research Horticulturist  
United States Department of Agriculture  
Natural Resources Conservation Service  
Plant Materials Center  
Route 2, Box 1189  
Bridger, MT 59014

**ABSTRACT**

Ecological restoration with wildland ecotypes poses unique propagation challenges for natural resource managers including unpredictable wildland seed crops, short growing seasons, limited access for propagule collection, genetic considerations, seasonal staffing, uncertain and changing construction schedules, and short revegetation intervals. Although sexual propagation from seeds is less labor and equipment intensive, limited seed and long or unknown dormancy requirements can result in lengthy production intervals. Asexual propagation from stem cuttings provides a viable alternative for native plant production. Although dormant hardwood cuttings provide ease of handling and storage, access to donor plants, winter browsing, seasonal staffing, and reduced winter greenhouse operations often limit their use. Summer cuttings facilitate access to donor plants, reduced browse competition, improved percentage rooting, shorter production intervals, adequate labor, and efficient greenhouse operation. The selection of a propagation technique depends on genetic considerations, the propagation characteristics of the species, site and environmental factors, economic and procurement considerations, and construction schedules and goals. Favorable summer cutting propagation conditions include adequate stem diameter, proper and limited cutting storage, fungicide dip, wounding, recut base, treatment with growth regulators, intermittent mist and high humidity, sterile well drained media, adequate media temperatures, shade, and strict environmental control.