

## **Development of Native Plants for Restoration of the Great Basin**

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Since European settlement, numerous native plants have been seriously reduced or eliminated in shrubsteppe communities of the Great Basin. Transformation of shrub communities to annual weeds, and more recently to perennial weeds, has resulted in a drastic loss of resources and contributed to a dramatic increase in wildfire size and frequency, and further spread of weeds. Although seeds of various native shrubs and herbs are collected in increasing amounts from wildland stands, sufficient quantities are generally not available for large-scale revegetation projects. A number of problems hinder the development and use of many species. Broadleaf herbs are important components of most plant communities, but may be only locally or regionally important. This creates a need for a diverse group of species. The occurrence and distribution of ecotypic populations of most species has not been defined and site-adapted seed zones are not available. Cultural practices required for producing seed under cultivation and technology for planting each species in mixtures is not fully understood. Approximately 20 different forbs have been identified as priority species for restoration of semi-arid sagebrush steppe communities in the Great Basin. Areas of occurrence and principal regions where these species will be used are identified. A combination of phenological and morphological growth indices will be used to define ecotypes and determine ecological or genetic factors regulating distribution and site adaptive characteristics. The use of "site-identified" certification procedures to provide insurance of origin and to enhance the use of regional ecotypes is proposed, but the advantages of combining broadly related ecotypes has merit.