

## Selecting Grasses for Success

One of the most important steps for successful grass seedings involves the selection of appropriate species and varieties. Plant characteristics such as seedling vigor, drought resistance, growth habit, flowering and maturity date, productivity, forage quality, salinity tolerance, grazing tolerance, and winter hardiness are quite variable in different species and varieties (cultivars) of grasses. For a successful planting, grass species and cultivars must be matched closely with the climate and soils of the planting location, and with the intended use and desired outcomes.

Data from years of historical evidence and ecological site evaluation have been incorporated into the species selection guide of the NRCS FOTG. It includes species compatibility and the soils and environmental limitations of the site. This information is utilized to select the right combination of species for a successful planting. Once the proper species have been identified, a variety or seed source that is adapted to the local area needs to be selected. Trial evaluations in the Northern Great Plains indicate that seed sources of warm-season grasses generally can be moved 300 miles north or 200 miles south of their origin without serious adaptation difficulties. Movement East or West is influenced by altitude and precipitation. Many cool-season grasses typically have a broader area of adaptation. However, some cool-season species such as timothy and orchardgrass perform best where annual moisture is at least 20 inches. They are more susceptible to winter kill in a drier environment. The NRCS FOTG provides a list of seed sources and varieties of each species that are approved for program plantings in each locality. When an unapproved species, variety or seed source is used in a seed mix there is potential for failure of the planting due to lack of adaptability. It is also ineligible for program reimbursement.



*Winter injury can result when species or cultivars are not adapted to the planting site. An Indiangrass cultivar (left) originating in the Southern US shows severe winter injury in the Northern Plains. Orchardgrass (right) is not adapted to the dry conditions at this site in the Northern Great Plains.*

Planting a well-adapted selection provides long-term benefits for productivity and longevity of the stand. Considering all variables that impact the success of a forage or pasture seeding, there is no room for shortcuts when selecting the proper species and varieties for the location to be seeded.

Proper seeding technique is the next step for a successful grass stand. Information related to seeding techniques can be found in the brochure, [Five Keys to Successful Grass Seeding](#) .



*This array of switchgrass cultivars shows the different growth habits and maturity dates found among them.*



*Planting NRCS approved cultivars with different maturity stages provides opportunity for extended grazing and haying.*