

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**PASTURE AND HAY PLANTING**

(ac.)  
CODE 512

**DEFINITION**

Establishing native or introduced forage species.

**PURPOSES**

This practice may be applied as part of a conservation management system to accomplish one or more of the following purposes:

Establish adapted and compatible species, varieties, or cultivars.

Improve or maintain livestock nutrition and/or health.

Extend the length of the grazing season.

Provide emergency forage production.

Reduce soil erosion by wind and/or water.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice may be applied on cropland, hayland, pastureland, and other agricultural lands where forage production is feasible and desired.

**CRITERIA**

**General criteria applicable to all the purposes stated above.**

Plant species and their cultivars shall be selected based upon:

Climatic conditions, such as annual rainfall, seasonal rainfall patterns, growing season length, humidity levels, temperature extremes and the USDA Plant Hardiness Zones.

Soil condition and position attributes such as pH, available water holding capacity, aspect, drainage class, inherent fertility, salinity and alkalinity, flooding and ponding, and levels of toxic elements that may be present such as selenium and aluminum.

Plant resistance to disease and insects common to the site or location.

Plant compatibility with other forage species and their selected cultivar(s) in rate of establishment, maturity, and growth habit when seeded together as a forage mixture.

Specified seeding/plant material rates, methods of planting and date of planting shall be consistent with documented guidance cited by research institutions or agency demonstration trials for achieving satisfactory establishment.

Seeding rates will be calculated on a pure live seed (PLS) basis or percent germination.

Provide a firm, weed-free seedbed that ensures seed will contact soil moisture uniformly, facilitates seedling emergence, and provides a medium that does not restrict or allow roots to become dry.

All seed and planting materials shall be labeled and meet state seed quality law standards.

Legume seed shall be inoculated with the proper, viable rhizobia before planting.

**Additional criteria for improving or maintaining livestock nutrition and/or health.**

Forage species must be capable of meeting the desired level of nutrition for the kind and class of the livestock to be fed.

**Additional criteria for extending the grazing season.**

Forage species selected for establishment shall fulfill a recognized dietary deficiency within the year long forage management program.

**Criteria for providing emergency forage production.**

Select plants that will produce forage for use during periods when other on-farm/ranch forage is unavailable to meet livestock needs.

Conservation practice standards are reviewed periodically and updated if needed. The current version of this standard is on our eFOTG web site available at [www.sd.nrcs.usda.gov](http://www.sd.nrcs.usda.gov) or may be obtained at your local Natural Resources Conservation Service.

**Criteria for reducing erosion by wind and/or water.**

Plants shall have the ability to provide adequate ground cover, canopy cover, root mass, and vegetal retardance to wind forces and water flows either alone or in combination with other forage species when site conditions require erosion protection.

**CONSIDERATIONS**

Prescribed Burning, Prescribed Grazing, Brush Management, and Grazing Land Mechanical Treatment practices may be used in combination with Pasture and Hay Planting.

Where wildlife management is an objective, the food and cover value of the planting can be enhanced by using an approved habitat evaluation procedure to aid in selecting plant species and providing for other habitat requirements necessary to achieve the objective.

Forage species planted in mixture should exhibit similar palatability to one another to avoid spot or selective grazing.

**PLANS AND SPECIFICATIONS**

Specifications for the establishment of pasture and hay plantings shall be prepared for each site or management unit according to the Criteria, Considerations, and Operations and Maintenance described in this standard, and shall be recorded on specification sheets, job sheets, in narrative statements in the conservation plan, or other acceptable documentation.

**OPERATION AND MAINTENANCE**

Growth of seedlings or sprigs shall be monitored for water stress. Water stress may require reducing weeds, early harvest of any companion crops, irrigating when possible, or replanting failed stands, depending on the severity of drought.

Invasion by undesirable plants shall be controlled by cutting, using a selective herbicide, or by grazing management by manipulating livestock stocking rates, density, and duration of stay.

Insects and diseases shall be controlled when an infestation threatens stand survival.