

## NATURAL RESOURCES CONSERVATION SERVICE

### CONSERVATION PRACTICE STANDARD

## PASTURE AND HAY PLANTING

(Ac.)

### CODE 512

#### DEFINITION

Establishing native or introduced forage species.

levels of toxic elements that may be present.

- Resistance to disease and insects common to the site or location.

#### PURPOSE

- Establish adapted and compatible species, varieties, or cultivars for forage production.
- Improve or maintain livestock nutrition and/or health.
- Balance forage supply and demand during periods of low forage production.
- Reduce soil erosion and improve water quality.
- Increase carbon sequestration

Specified seeding/plant material rates, methods of planting and date of planting shall be consistent with documented guidance cited by plant materials program (<http://plant-materials.nrcs.usda.gov/centers>), Conservation Field Trials, or other reliable research trials for achieving satisfactory establishment. Contact the county UCCE specialist for recent research based recommendations.

Seeding rates will be calculated on a state approved method such as pure live seed (PLS) or percent germination.

#### CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on lands where forage production and/or conservation is needed and feasible.

Plant to proper depth ensuring seed or planting material will contact soil moisture uniformly. Prepare site to provide a medium that does not restrict plant emergence.

Planting dates shall be scheduled during periods when soil moisture is adequate for germination and establishment.

#### CRITERIA

##### General Criteria Applicable to All Purposes

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, slope, drainage class, fertility level, salinity, depth, flooding and ponding, and

All seed and planting materials shall meet state quality standards.

Select plants that according to federal, state, or local regulations are not considered noxious species.

Fertilizer and soil amendment recommendations shall be based on results from a current soil test. Application shall be appropriately placed and timed to be effective.

If needed, legume seed shall be inoculated with the proper species of viable Rhizobia before planting.

If using coated seed, recalibrate the planting equipment to deliver the same number of seed per area as would be applied with non-coated seed.

Livestock shall be excluded until the plants are well established.

**Additional Criteria for Establishing Adapted and Compatible Species, Varieties or Cultivars for Forage Production**

Select forage species based on the intended use, realistic expected yield, maturity stage, compatibility with other species and level of management willing to provide. Plant adaptation to the proposed planting area shall be verified prior to planting.

**Additional Criteria for Improving or Maintaining Livestock Nutrition and/or Health**

Establish forage species that are most capable of meeting the desired level of nutrition (quantity and quality) for the kind and class of the livestock to be fed.

**Additional Criteria for Balancing the Forage Supply and Demand during Low Forage Production Periods**

Select plants that will produce forage for use during periods when other on-farm/ranch forage does not meet livestock needs. Forage species selected shall balance or help balance the dry matter demand of the animals for the desired period of time.

**Additional Criteria for Reducing Erosion and Improving Water Quality.**

Plants shall provide adequate ground cover, canopy cover, root mass and vegetative retardance to protect soil against wind and water erosion.

**Additional Criteria to Increase Carbon Sequestration**

For optimal carbon storage, select species that increase site biomass.

**CONSIDERATIONS**

In areas frequented by high density of animals, establish persistent species that can tolerate close grazing and trampling.

Where wildlife management is an objective, use an approved habitat evaluation procedure to aid in selecting plant species and providing for other habitat requirements.

Where air quality concerns exist, site preparation techniques should be utilized that will minimize airborne particulate matter generation and transport.

**CULTURAL RESOURCES CONSIDERATIONS**

NRCS policy is to avoid any effect to cultural resources and protect them in their original location. Determine if installation of this practice or associated practices in the plan could have an effect on cultural resources. The National Historic Preservation Act may require consultation with the California State Historic Preservation Officer.

<http://www.nrcs.usda.gov/technical/cultural.html> is the primary website for cultural resources information. The California Environmental Handbook and the California Environmental Assessment Worksheet also provide guidance on how the NRCS must account for cultural resources. The e-Field Office Technical Guide, Section II contains general information, with Web sites for additional information.

Document any specific considerations for cultural resources in the design docket and the Practice Requirements worksheet.

**ENDANGERED SPECIES CONSIDERATIONS**

If during the Environmental Assessment NRCS determines that installation of this practice, along with any others proposed, will have an effect on any federal or state listed Rare, Threatened or Endangered species or their habitat, NRCS will advise the client of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid the adverse effects. Further assistance will be provided only if the client selects one of the alternative conservation treatments for installation; or with concurrence of the client, NRCS initiates consultations concerning the listed species with the U.S. Fish and Wildlife Service,

National Marine Fisheries Service and/or  
California Department of Fish and Game.

### **PLANS AND SPECIFICATIONS**

Specifications for the establishment of pasture and hay planting shall be prepared for each site or management unit according to the Criteria and Considerations 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**

The operator will inspect and calibrate equipment prior to use to insure proper rate, distribution and depth of planting material.

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

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

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

Evaluate forage stands each season or as needed to determine management inputs needed to achieve the desired purpose(s).

