NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

PASTURE AND HAY PLANTING

(acre)
CODE 512

DEFINITION

Establishing native or introduced forage species.

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.

CONDITIONS WHERE PRACTICE APPLIES

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

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 levels of toxic elements that may be present.

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

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

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

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.

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.

PLANS AND SPECIFICATIONS

Site-specific specifications for the installation and maintenance of this practice shall be prepared for each field or treatment unit according to this Standard and the Conservation Practice Specification.

The NRCS Hawaii Jobsheet for this practice shall be used to document the site specifications. Other documents (worksheets, maps, drawings, and narrative statements in the conservation plan) may be used in addition to the Jobsheet to document site specifications or to plan or design the practice.

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).

REFERENCES

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