

FORAGE AND BIOMASS PLANTING

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 512



FORAGE AND BIOMASS PLANTING

The purpose of pasture, hay or biomass planting is to establish adapted and/or compatible species, varieties, or cultivars of herbaceous species suitable for pasture, hay, or biomass production..

PRACTICE INFORMATION

This practice applies all lands suitable to the establishment of annual, biennial or perennial species for forage or biomass production. This practice does not apply to the establishment of annually planted and harvested food, fiber, or oilseed crops.

This practice is used for one or more of the following purposes:

- Improve or maintain livestock nutrition and/or health.

- Provide or increase forage supply during periods of low forage production.
- Reduce soil erosion.
- Improve soil and water quality.
- Produce feedstock for biofuel or energy production.

Plant species recommendations for this practice are based on the following considerations:

- Refer to Forage and Biomass Planting Specification (512S) and Herbaceous Design Procedure (550DP) for additional requirements.
- Climatic conditions, such as annual precipitation and its distribution, growing season length, temperature extremes and the USDA Plant Hardiness Zone.

The attached diagram identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

- Soil condition and landscape position attributes such as; pH, available water holding capacity, aspect, slope, drainage class, fertility level, salinity, depth, flooding and ponding, and levels of phytotoxic elements that may be present.
- Resistance to disease and insects common to the site or location.

COMMON ASSOCIATED PRACTICES

Pasture and Hay or Biomass Planting is commonly used as part of a Conservation Management System with practices such as Prescribed Burning (338), Conservation Crop Rotation (328), Residue Management practices, Nutrient Management (590), Pest Management (595), Salinity and Spodic Soil Management (610), and livestock watering systems.

Refer to the practice standard in the local Field Office Technical Guide and associated specifications and job sheets for further information, including recommended species, seeding dates, seeding rates, seedbed preparation requirements, planting methods, and other technical requirements.

REFERENCES

Ball, D.M., C.S. Hoveland, and G.D.Lacefield, 2007. Southern Forages, 4th Ed. International Plant Nutrition Institute, Norcross, GA.

Barnes, R.F., D.A. Miller, and C.J. Nelson. 1995. Forages, The Science of Grassland Agriculture, 5th Ed. Iowa State University Press, Ames

United States Department of Agriculture, Natural Resources Conservation Service. 1997. National Range and Pasture handbook. Washington, DC.

USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>, 08October 2008). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

USDA, NRCS. 2009. Technical Note 3. Planting and Managing Switchgrass as a Biomass Energy Crop.

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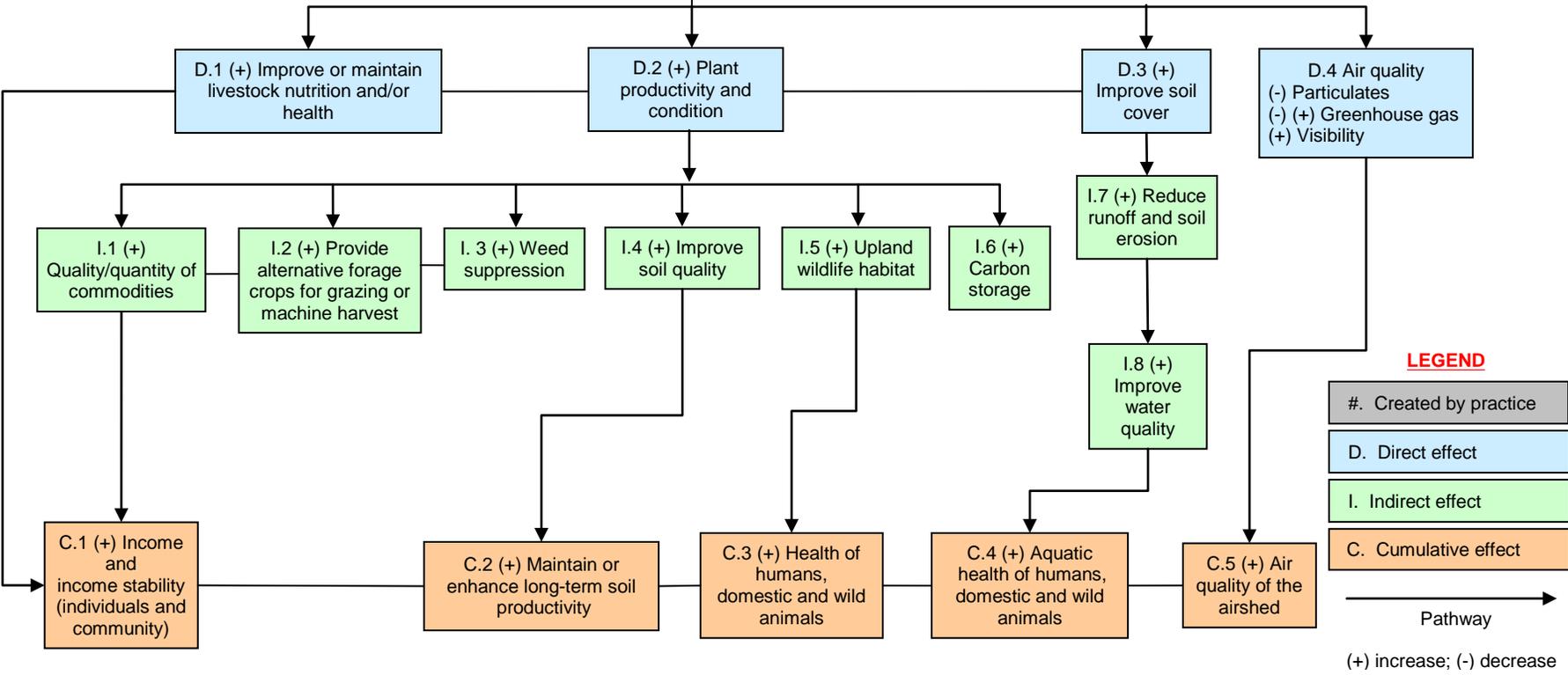
Forage and Biomass Planting
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Forage and Biomass Planting (512)

Initial setting: Desired, but absent, forage species are established or new forage species or better varieties are introduced

Start

1. Forage crops adapted to local climate and soils with best resistance to stand reducing diseases and/or insects are established as needed



Note: Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.

The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.