Soil Quality Enhancement Activity – SQL16 –High species diversity grazing lands

Enhancement Description
Warm-season perennial grazing lands will be overseeded with a multi-species diverse mixture of annual grasses, clovers, and broadleaf species.

Land Use Applicability
Pastureland, Rangeland

Benefits
Grazing lands of high species diversity are more functional and productive than those of monocultures or simple two-species mixture. Other benefits include the biological nitrogen fixation of legumes, increased nutrient use efficiency by seasonal distribution of nutrient uptake of different species, increased moisture and nutrient acquisition by including particularly deep-rooted species in mixtures, and enhanced light interception from differing leaf orientations and extents of shade tolerance.

Conditions Where Enhancement Applies
This enhancement applies to all pasture and range land use acres.

Criteria
1. Develop a seeding plan which contains at least 6 forage species representing 3 functional groups with at least 1 desirable legume. The functional groups are cool-season grasses, warm-season grasses, legumes and other grazeable broadleaf plants.
2. Seed the mixture developed above according to Forage and Biomass Planting Standard, CPS 512.
3. Develop a prescribed grazing plan that includes the expected forage outputs of the seed mixture, once established.

Adoption Requirements
This enhancement is considered adopted when the seeding mixture has been established on the land use acre.

Documentation Requirements
1. A map showing fields where the seed mixture as planted
2. Species used and date planted
3. Date and amount of fertilizer applied
4. Prescribed grazing plan

References

Soder, K.J., A.J. Rook, M.A. Sanderson and S.C. Goslee. 2007. Interaction of plant species diversity on grazing behavior and performance of livestock grazing temperate region pastures. Crop Science 47:416-425

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/nm/home/?cid=stelprdb1048783