

SOIL CONSERVATION SERVICE

KENTUCKY

RECREATION AREA IMPROVEMENT (Ac)

.. 562

STANDARD

- Definition -

Establishing grasses, legumes, vines, shrubs, trees, or other plants or selectively reducing stand density and trimming woody plants to improve an area for recreation.

- Purpose -

To increase the attractiveness and usefulness of recreation areas and to protect the soil and plant resources.

- Condition Where Practice Applies -

On any area planned for recreation use.

- Planning Considerations For Water Quantity and Quality -

Quantity

Effects on the water budget, especially on volumes and rates of runoff, infiltration, and transpiration.

Quality

1. Effects of erosion and the movement of sediment, pathogens, and soluble and sediment-attached substances that could be carried by runoff. Important factors are short-term changes caused by construction (sediments, fuels, oils, and other chemicals) compared to long-term changes caused by the same substances resulting from recreation activities.
2. Effects of changes in ground water from infiltrating soluble substances associated with vegetation management and recreation activities.

SPECIFICATIONS

1. For seeding of grasses and legumes
 - A. Site and seedbed preparation
 1. Remove obstructions such as stumps, shrubs, stones, and other debris that may interfere with seedbed preparation, seeding and management of the area for recreation.
 2. All required smoothing, grading, leveling, drainage work and installation of recreation facilities shall be completed prior to seedbed preparation.
 3. Apply a minimum of 18 to 24 inches of suitable soil material over very toxic or extremely acid materials.
 4. Apply lime and fertilizer as need is indicated by a soil test. Maintain a soil pH of at least 5.5.
 5. Prepare a firm seedbed free of large clods, stones or debris to a minimum depth of 3 inches incorporating the required lime and fertilizer.
 - B. Selection of species, seeding dates and treatment of seed
 1. Select a suitable seeding mixture, rate of seeding and seeding date from Table I. Refer to other standards and specifications; Critical Area Planting, Heavy Use Area Protection, and Pasture and Hayland Planting if Table I isn't adequate.
 2. Inoculate seed within 12 hours of use.
 - C. Seeding Method
 1. Apply seed uniformly at a depth of 1/4 to 1/2 inch with a drill or cultipacker type seeder or broadcast seed uniformly and cover to a depth of 1/4 to 1/2 inch with a cultipacker, harrow, or similar tool.
 2. Cultipacking prior to broadcast seedings will firm and improve seedbed conditions.
 3. When seeding with a hydroseeder, cultipack the area to insure a good seed soil contact unless the topography is too steep. If a cultipacker cannot be used, then be sure the area is mulched.

D. Mulching

All seedings shall be mulched. Refer to standards and specifications for mulching in Section IV of the technical guide.

E. Nurse crops

Where erosion or weeds may be a problem a nurse crop of 1 bushel of spring oats per acre for spring seedings or 3/4 bushel per acre of wheat or cereal rye for summer seedings may be made. Nurse crops shall be mowed or removed as hay between the boot and early head stage of growth.

F. Protection - Protect the area from intensive use until vegetation is well established.**II. Sodding****A. Site preparation**

1. Follow the same procedures provided for in A-1 through A-5.
2. Incorporate the required lime and fertilizer to a depth of 2 inches and prepare a smooth compacted surface.

B. Quality, kind and condition of sod

1. Use good dense sod of a suitable grass (usually bluegrass). Only moist, fresh sod shall be used.
2. Sod shall be cut uniformly at a minimum of 1/2 to 1 inch thick.

C. Laying the sod

1. Refer to the standard and specification "Critical Area Planting".
2. Protect the area from intensive use until the vegetation is well established.

III. Planting trees and shrubs**A. Site preparation - refer to the standards and specifications "Woodland Site Preparation" and "Tree Planting."****B. Selection of species - select desired species from part II-H and II-F of the technical guide.**

- C. Care of planting stock - see "Tree Planting" standard and specification for bare rooted stock. Keep ball and burlap stock moist, protect from freezing.
- D. Spacing of trees, shrubs and vines - spacings are variable depending on species to be planted, the site and purpose of the planting. See "Tree Planting" standard and specification.
- E. Planting bare rooted seedlings - see standard and specification "Tree Planting."
- F. Planting ball and burlap stock
 - 1. May be planted anytime of the year as long as the soil is not frozen and is workable.
 - 2. Don't handle or lift balled stock by their tops or branches.
 - 3. Dig a hole deep enough so that the plant will rest at the same level as it was originally growing.
 - 4. Use peat moss or composted leaves to amend the soil - shall be 1/3 organic matter by volume.
 - 5. Fill the hole 2/3 full of loose amended soil, water thoroughly - add remainder of soil needed and press firmly around the plant.
 - 6. Two to five inches of mulch will conserve moisture and control weeds.
 - 7. A starter solution of 1 tablespoon of 20-20-20 fertilizer in 1 gallon of water may be used. The entire root zone may be drenched.
 - 8. Trunks of most trees should be wrapped for the first two years to prevent sunscald and reduce water loss. Brace or guy all trees and shrubs taller than 4 feet in height.
- G. Protection - protect from livestock and damage by people or vehicles.

IV. Recreation pruning and thinning

- A. Where to prune and thin - in areas where the number of trees or shrubs, low limbs or high density of shade is undesirable or presents safety hazards in the establishment, use, and maintenance of recreation facilities.

B. What to retain

1. Sound healthy trees and shrubs that are long lived.
2. Favor deep rooted species such as red oak, bur oak, white oak, sugar maple, sweetgum, yellow-poplar, etc.
3. Some flowering and wildlife food plants such as dogwood, redbud, serviceberry, pawpaw, persimmon, etc.
4. All wood vegetation on odd areas not needed for intensive use, where a natural screen is desired or where woody vegetation is needed for erosion control.

C. How to prune and thin

1. Thinning - thin to about 50 percent crown canopy to increase sunlight, accessibility and improved grass cover in picnic and campsites, etc. Cut trees and shrubs flush with the ground line. To prevent sprouting, treat stumps with a herbicide immediately after cutting.
2. Pruning - retain at least 1/3 of the total tree height in live crown or in human use areas such as along paths or trails, remove limbs on large trees to a height of 8 feet. On bridle paths and roads, remove limbs to a height of 12 feet. See the standard and specification "Woodland Pruning (660)." Old overgrown or decadent shrubs can be rejuvenated by removal of older stems flush with the ground.

D. When to prune and thin

1. Most deciduous trees and shrubs can be pruned during any season. Excessive "bleeding" of some species can be avoided by not pruning in later winter or early spring.
2. Evergreen species may have the entire limb removed during any season. Removal of a portion of a limb should be restricted only to new growth after it starts to harden in late spring or early summer.
3. Thinning of any species can be done at any time of the year.

V. Other considerations

A. Maintenance

1. Grass - mow or use chemicals to control weeds and other unwanted plants. Top-dress with needed lime and fertilizer as per soil test. Reseed as needed.
2. Trees, shrubs, and vines - control competing vegetation for at least 3 growing seasons by mechanical or chemical means. Replace any plants that die.

B. Water quality considerations

1. If herbicides are handled or applied improperly or if unused portions are not disposed of safely, they may be injurious to humans, domestic animals, desirable plants or wildlife, and they may contaminate water supplies. Drift from aerial spraying can contaminate nearby crops and other vegetation. Follow the directions and heed all precautions on the container label.
2. Debris - noncommercial portions of trees and shrubs, cut to reduce the tree canopy on recreation areas, may result in an abundance of organic debris which can be a potential water pollutant. If possible, fell trees away from the drainage along perennial streams. Remove debris (tops, limbs, brush) from perennial streams, lakes, and ponds to a distance to insure it not getting back into the water.

TABLE I RECREATION AREA PLANTING GUIDE FOR GRASSES AND LEGUMES

Use Conditions	Soil Moisture Conditions	Shade	Species and Seeding Dates	Rate of Seeding *	
				lbs./ac.	lbs./1000 sq. ft.
Moderate Use Areas Fairways Lawns ** Parkways (mowed frequently)	Adequate	0-10	KY 31 fescue 1, 2, 3	25	0.2
			Bluegrass 1, 2	12	0.3
			Orchardgrass 1, 2, 3	25	0.2
			Perennial ryegrass 1, 2, 3	18	0.4
			Crownvetch 1, 2	20	0.5
	10-50	KY 31 fescue 1, 2, 3	25	0.6	
		Redtop 1, 2, 3	6	0.2	
		Orchardgrass 1, 2	12	0.3	
		Bluegrass 1, 2	12	0.3	
		Creeping red fescue 1, 2	20	0.5	
Droughty	0-10	KY 31 fescue 1, 2, 3	25	0.6	
		Bluegrass 1,2	12	0.4	
		White Clover 1	2	0.1	
		KY 31 fescue 1, 2, 3	40	1.0	
		'Blackwell' switchgrass 1, 2	15	0.4	
	10-50	Crownvetch 1	20	0.5	
		Sericea lespedeza (tall or dwarf) 1, 2, 3	30	0.7	
		KY 31 fescue 1, 2, 3	40	1.0	
		Crownvetch 1, 2	20	0.5	
		Sericea lespedeza (tall or dwarf) 1, 2, 3	30	0.7	
50+	Sweet clover 1	12	0.4		
	KY 31 fescue 1, 2, 3	45	1.1		
	Sericea lespedeza (tall or dwarf) 1, 2, 3	35	0.8		

Seeding Dates

1. Spring seeding, Feb. 15 - May 15
2. Summer seeding, May 15 - Aug. 15
3. Fall seeding, Aug. 15 - Oct. 15.

* See Agronomy Tech. Note #69 for minimum seed purity and germination.
 ** Seeding rate for fescue on lawns should be about 100 lbs./ac. Also a number of narrow leaf varieties of fescue are available for lawn use.

TABLE 1 RECREATION AREA PLANTING GUIDE FOR GRASSES AND LEGUMES

Use Conditions	Soil Moisture Conditions	Shade	Species and Seeding Dates	Rate of Seeding *	
				lbs./ac.	lbs./1000 sq. ft.
Scenic or Natural Areas (close mowing not required)	Wet	0-50	Reed canarygrass 1, 2	12	0.3
			Alsike clover 1,3	4	0.1
			Garrism creeping foxtail 1, 3 KY 31 fescue 1, 3	30	0.7
		50+	Creeping red fescue 1, 2	20	0.5
			Reed canarygrass 1, 2	12	0.3
			Alsike clover 1, 3	4	0.1
	Adequate	0-10	KY 31 fescue 1, 2, 3	30	0.7
			Ladino clover 1	2	0.1
			Crownvetch 1	15	0.4
		10-50	KY 31 fescue 1, 2, 3	30	0.7
			Ladino clover 1	2	0.1
			Crownvetch 1	15	0.4
50+	KY 31 fescue 1, 2, 3	30	0.7		
	Ladino clover 1	2	0.1		
	Crownvetch 1	15	0.4		
Droughty	0-50	Lathco' flat pea 1	30	0.7	
		KY 31 fescue 1, 2, 3	30	0.7	
		Deertongue 1	20	0.5	

Seeding Dates

1. Spring seeding, Feb. 15 - May 15
2. Summer seeding, May 15 - Aug. 15
3. Fall seeding, Aug. 15 - Oct. 15.

* See Agronomy Tech. Note #69 for minimum seed purity and germination.

TABLE 1 RECREATION AREA PLANTING GUIDE FOR GRASSES AND LEGUMES

Use Conditions	Soil Moisture Conditions	Shade	Species and Seeding Dates	Rate of Seeding *	
				lbs./ac.	lbs./1000 sq. ft.
Intensive Use Areas	Adequate	0-50	'Appalow' sericea lespedeza 1,2, 3 * Crownvetch 1, 2 KY 31 fescue 1, 2, 3 Sweet clover 1	25	0.6
				20	0.4
				35	0.8
Camping	Adequate	50+	Creeping red fescue 1, 2	15	0.3
				40	0.9
Picnicking	Adequate	0-50	KY 31 fescue 1, 2, 3 Sericea, dwarf and prostrate 1, 2 Switchgrass 1, 2 Sweet clover 1	50	1.1
				35	0.8
				15	0.3
Playgrounds	Adequate	50+	Deertongue 1 KY 31 fescue 1, 2, 3 Sweet clover 1	20	0.4
				18	0.4
Trails	Droughty	50+	Deertongue 1 KY 31 fescue 1, 2, 3 Sweet clover 1	50	1.2
				18	0.4

Seeding Dates *

1. Spring seeding, Feb. 15 - May 15
2. Summer seeding, May 15 - Aug. 15
3. Fall seeding, Aug. 15 - Oct. 15.

* See Agronomy Tech. Note #69 for minimum seed purity and germination.