LOW MAINTENANCE TURF GRASSES FOR MONTANA

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Use of dryland lawn species is gaining popularity across the western USA. Families are seeking more leisure time and are tired of spending weekends manicuring Kentucky bluegrass lawns. The cost of maintenance equipment and inputs are becoming more and more expensive i.e. lawn mowers, trimmers, water, sprinkler systems, fertilizers, etc. Also, dryland sod will conserve energy and decrease environmental pollutants. Dryland sod will not eliminate all these costly inputs and environmental concerns, but will reduce them significantly. Dryland lawns also appear more natural and can be aesthetically pleasing depending on the homeowners wants and desires.

Homeowners, landscape architects, nurseryman and municipalities should to be educated in the values and uses of dryland lawns. Demonstration plantings could be displayed around community centers, public buildings and even on interested homeowners properties. Seed sources could be catalogued with prices and availability shown.

SPECIES SELECTION

Several major factors need to be considered when selecting species: 1) landscape purpose, objectives and function 2.) mean annual precipitation, 3.) soil texture, pH, fertility, etc. 4.) plant winter hardiness, 5.) desired foliage texture and color, and 6.) intended level of management.

SPECIES ALTERNATIVES & DESCRIPTIONS

- -'Alta' tall fescue
- -'Durar' hard fescue
- -'Covar" sheep fescue
- -'Fairway' crested wheatgrass
- -'Ephriam' crested wheatgrass
- -'Sodar' streambank wheatgrass
- -'Critana' thickspike wheatgrass
- -'Rosana' western wheatgrass
- -'Bozoisky-Select' Russian wildrye
- -Buffalograss
- -'Alma' bluegrama

Plant cultivars, i.e. 'Sodar', are recommended because they have been performance tested and proven successful in Montana and Wyoming environments. Seed of certified cultivars insure the genetic integrity of the plant material and its purity, freedom from noxious weeds and a high germination percentage.

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-Tall Fescue is a cool-season introduced bunchgrass. It has course leaves that are somewhat greenish yellow. Regrows following mowing and requires 16 inches annual precipitation. It

prefers loam to clay loam soil and will tolerate some salinity and high water tables. It establishes an uneven "clumpy" surface.

-Hard Fescue is a cool-season native bunchgrass. It has greenish yellow leaves and very fine foliage. Has little regrowth and has a very short stature, but Excellent erosion control. It will grow on all soil textures and requires 15 inches mean annual precipitation. Establishes slowly.

-Sheep fescue is a cool-season native bunchgrass. It has very fine yellow green foliage and a very short stature. Very drought tolerant requiring only five inches of annual precipitation. Prefers loam to course textured soils. Establishes slowly. Not recommended for a playing field.

-Crested Wheatgrass is a cool-season introduced bunchgrass. It has green leaves and medium textured foliage. Drought tolerant needing only five inches of annual precipitation. Grows on all soil textures. The cultivar Ephriam has the ability to spread by rhizomes with additional moisture.

-Streambank wheatgrass is a cool-season native sod former. It has medium textured blue-green foliage. Very drought tolerant growing with five inches of precipitation. Prefers loam to fine textured soils. Excellent for erosion control and establishes a level surface desirable for a playing field.

Thickspike wheatgrass is a cool-season native sod former. It has medium textured yellow green foliage. Drought tolerant growing in five inch annual precipitation zones. Prefers loam to course textured soils. Excellent erosion control and grows into a sod mat suited for a playing field.

-Western wheatgrass is a cool-season native sod former. It has course textured bluegreen foliage. Drought tolerant growing in 12 inch precipitation zones. Tolerant of seasonal high water tables and moderate salinity. Prefers loam to fine textured soils. Grows into a sod mat providing excellent erosion control.

-Russian wildrye is an introduced cool-season bunchgrass. It has medium textured green leaves. Very drought tolerant growing in five inch annual precipitation. Prefers loam to fine textured soils. Establishes a clumpy surface not well suited to a playing field.

-Buffalograss is a warm-season native sod former spreading by above ground stolons. It has fine textured green foliage. Drought tolerant requiring 12 inches annual precipitation. Prefers loam to coarse texture soils. Establishes a smooth surface. Adapted east of the continental divide.

-Bluegrama is a warm-season native bunchgrass. It has fine textured green foliage. Drought tolerant requiring 12 inches annual precipitation. Grows on loam to fine textured soils. Greenup is in late may or June.

SITE PREPARATION

If a bluegrass sod currently exists and it is desired to convert it to xeroscape species, the bluegrass needs to be destroyed. It can be destroyed by applying glyphosate to a green and growing grass that has a three or four inch height in September. The herbicide will kill the grass in the fall and the lawn can be tilled early the next spring in preparation for the xeroscape species planting. The

planting can be made before May 15 and established with natural spring precipitation. Light frequent irrigations, 1/2 inch every five days, could also be applied to insure establishment in case of droughty conditions.

If the landscape is barren following new construction, topsoil should be applied and the site tilled for planting preparation. The xeroscape species can be planted between October 15 and May 15 and established from natural precipitation. It could also be planted in August and irrigated up with light frequent irrigation, 1/2 inch of water every 5 days. Light, frequent irrigation could also be applied on the spring planting to insure establishment in case of droughty conditions.

With either scenario, a weed-free, firm, smooth well-pulverized soil surface should be prepared. The final surface should be shallow roughened to provide shallow rills and ridges for seed catchment.

PLANTING METHOD

Dryland turfs should be broadcast seeded to prevent row effect and establish a total dense ground cover.

SEEDING RATES

Most bluegrass lawns are broadcast planted at high rates -- 10-20 seeds/in.2. (1-2#/1000 ft.2- Kentucky bluegrass has approximately 2.2 million seeds per pound.) They are planted at this rate to insure dense stands, provide weed competition and promote finer leafed plants for favorable turf.

The same philosophy can be used when establishing dryland native species lawns. Based on planting one pure live seed/in.2, the following amounts of seeds are required.

	Broadcast rates #per 1000 ft.2
Alta tall fescue	.60
Bozoisky-Select Russian wildrye	.85
Durar hard fescue	.25
Covar sheep fescue	.25
Fairway crested wheatgrass	.75
Ephriam crested wheatgrass	.75
Sodar streambank wheatgrass	1.0
Critana thickspike wheatgrass	1.0
Rosana western wheatgrass	1.5
Buffalograss	2.6
Bluegrama	.18

Seed of these cultivars are commercially available and can be purchased through local farm service dealers.

LAWN ESTABLISHMENT

Once the grasses emerge and establish to 3-4 inches, begin mowing to "train" the plants to spread laterally and thicken the ground cover. Mowing or labelled herbicides can be used for broadleaf weed control.

POST-ESTABLISHMENT MANAGEMENT

Watering will depend on the landowners desires. If a green lawn is preferred for the entire growing season, periodic irrigation will be required along with some fertilizer and more frequent mowing and grass clipping removal. However, maintenance or management inputs will not approach the frequency or amounts required for Kentucky bluegrass. If a green lawn is not desired throughout the growing season, the dryland species would not require additional irrigation or fertilizer. Thus, depending on the landowners desires, the more irrigation, and fertilizer, the more maintenance. Lawns maintained on natural precipitation would not require fertilizer and would only be mowed to cut off seed head culms for aesthetic satisfaction.

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