

STOP 8

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Grasses for Unmowed Ornamental Use and Soil Stabilization Purposes

Grasses in the U.S. are categorized as cool season or warm season types. Cool season or introduced grasses were brought into the U.S. when the colonists came to America. Characteristics are:

1. Grow best in May and June, then undergo some summer dormancy and then increase their growth in the fall;
2. Head in late May or early June;
3. Produce seed on late June or July, then the flowering stalks generally turn tan in color;
4. Generally, can be defoliated four or more times per year;
5. Can be established easily in the spring or in late summer or as dormant seedlings in early to mid-November.

Generally cool season grasses are preferred for stabilization of ditchbanks, waterways, or rough areas getting little maintenance. Most grasses are sod formers, establish readily, and present a pleasant green appearance when mowed once or twice a year. Once cool season grasses head in late May or June, the stems and heads turn brown or tan in color, some or all the seed is shed, and the mature growth becomes somewhat ragged and unattractive unless mowed to stimulate new green growth.

Warm-season grasses in the northern part of the U.S. are native to the U.S. They were here when the white man came to America in prairies in the Mid-West or in open cleared areas between forested areas in Michigan and surrounding states and in some eastern states. They have little value for animal use in this area. Big bluestem, Indiangrass, and switchgrass are still found in Michigan on ditchbanks that are unmowed or only mowed once a year; around railroad right-of-ways; or in the case of little bluestem, in northern Michigan in the Jack Pine forests especially on the periphery.

Characteristics of warm season grasses are:

1. Grow best in late June to August under higher temperatures than those which are ideal for cool-season grasses.
2. Head in August or early September, and produce seed late in summer or early fall.
3. Generally cannot stand more than two defoliations a year or else they will be crowded out by introduced species since they are not competitive, are poor sod formers, and are generally not good seed producers.
4. Are harder to establish than cool-season grasses.

Warm season grasses are adapted for ornamental use since they are leafy until early August and then head out to present a most striking appearance. Vigorous stands of the tallest species will be four to five feet tall in September. The foliage should not be cut in mid-summer as with cool season grasses since the plants will not form heads in August or September if cut earlier.

The most valuable warm season grasses are the three tall species which like adequate water -- big bluestem, switchgrass, and Indiangrass. Big bluestem is a tall, vigorous handsome grass with brownish purplish heads resembling a turkey's foot, appearing in August. Indiangrass has a fuzzy, pubescent head and a brown color in the fall. Switchgrass has large open panicles (resembling a large head of oats) and has a tan color in the fall. Little bluestem, a typical "bunch" grass, is considerably shorter than the above three species, and is suited to somewhat poorer soils. It is not easy to establish. (Little bluestem is related to and in the same genus as the broomsedge of Virginia and other eastern states). All except switchgrass turn brownish in the fall (rather than tan as in cool season species) giving a solid planting of native grass a most attractive and decorative fall color.

Side-oats grama, blue grama, and buffalograss are too short, are poor sod formers, and lack competitive vigor to compete successfully with introduced grasses - and quackgrass - in Michigan. They have little value in Michigan (although they constitute much of the native ranges in the West).

Seedbeds should be well prepared, almost as well as for seeding lawns. Adequate N-P-K fertilizer, based on soil test, should be incorporated into the seedbed prior to planting.

Certified seed of warm season species can be obtained from agronomy departments at Universities in Nebraska (Lincoln), South Dakota (Brookings), and Kansas (Manhattan).

Table 14: Perennial Introduced (cool season) Grasses

Grass	Height in Feet		Sod or bunch	Color when headed	Head- ing date	Heads (1)	Seed rate (lb/acre)	Seeding time	Use and adaptability in Michigan
	Headed	Leaves							
Kentucky bluegrass	1-2	1/2-1	Sod	Tan	May	Panicle (2-4")	40	Spring, late Aug-Sept	Excellent wear resistance as sod in sunny areas, matures early, excellent sod former easy to eradicate, likes good soil
Red fescue	1-2	1/2-1	Bunch	Tan	May	Panicle (2-4")	40	Spring, late Aug-Sept	Excellent for shady or sandy areas. Drouth resistant
Smooth brome	3-4	3/4-1	Sod	Tan- brown	May	Panicle (4-6")		Spring, late Aug-Sept	Good sod former, excellent ground cover, easy to eradicate
Tall fescue	3-4	3/4-1	Sod	Tan	May	Panicle (4-6")	30	Spring, late Aug-Sept	Excellent ditchbank stabilization, easily seeded
Orchardgrass	3-4	1 1/2-2	Bunch	Tan	May	Panicle (Coxfoot) (3-5")	30	Spring, late Aug-Sept	Vigorous, easily established, good for semi-shaded areas, or full sun
Reed canarygrass	3-5	1 1/2-2	Sod	Tan	May- June	Panicle (3-5")	30	Spring late Aug-Sept	Adapted to wettest and driest sites, shatters seed, hard to eradicate because of vigorous rhizomes, best for wet muck or mineral soils
Perennial ryegrass	3/4-1	1/2 1/2-1	Bunch	Tan	May- June	Spike (6-8")	30	Spring, late Aug-Sept	Excellent for rapid establishment, short lived perennial
Annual ryegrass	1-2	1/2-1	Bunch	Tan	May- June	Spike (6-10")	30	Spring, late Aug-Sept	Excellent for rapid establishment, short lived, an <u>annual</u> grass

(1) Heads - spike is like wheat; panicle is like oats.

Table 15: Perennial Native (warm season) Grasses - Listed in Order of Potential Value

Grass	Height in Feet		Sod or bunch	Color when headed	Head- ing date	Heads (1)	Seed rate (lb/acre)	Seed- ing time	Use and adaptability in Michigan
	Headed	Leaves							
Big Bluestem	4-6	1-2	Sod	Brown	Aug.	Spike (Turkeyfoot)	40	May-Aug.	Ornamental, mow in late Oct., most vigorous of all native grasses, common on unmowed ditch-banks, in waste areas
Indiangrass	3-5	1-2	Sod	Tan-Brown	Aug.	Panicle (Pubescent)	40	May-Aug.	Ornamental, mow in late Oct., vigorous, open, attractive head
Switchgrass	3-5	1-2	Sod	Tan	Aug.	Panicle (8-1")	30-40	May-Aug.	Ornamental, easiest to establish of native species, vigorous, mow in late October
Little blue-stem	1-3	1-2	Bunch	Brown-Purple	Sept.	Spike (Pubescent)	40	May-Aug.	Ornamental, drought resistant, good on poorer soils, common on edge of sandy Jack Pine forest in Michigan
Side-oats grama	1-2	1/2-3/4	Bunch	Tan	Aug.	Spike (oat-like)	40	May, Aug.	Ornamental, mow in late Oct., susceptible to ingress of introduced grasses
Blue grama	1/2-1	1/4-1/2	Bunch	Purple-Tan	Aug.	Spike (1" pennant)	40	May, Aug.	Ornamental, mow in late Oct., susceptible to ingress of introduced grasses
Buffalograss	1/2-3/4	1/4-1/2	Sod	Tan	Aug.	Spike (1/2" pennant)	Sod Plugs	May-Aug.	Ornamental, subject to ingress by introduced grasses

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