#### Minnesota Water Garden Society Annual Meeting October 11, 2020 Best Grasses for Minnesota especially for Water Gardens Mary H. Meyer, Extension Horticulturist and Professor University of Minnesota

#### **Environmental Benefits of Native Grasses**

- Minimize soil erosion and increase organic matter
- Low nutrient requirement, supplemental nutrients are not needed
- Once established, low water requirement, drought tolerant
- Provide habitat for birds, wildlife, native bees
- Larval food for butterflies, birds and wildlife
- Not a primary food for white tailed deer

Native Grasses and Lepidoptera Use in the Upper Midwest		
Bouteloua curtipendula	side oats grama	Larval food for 6 butterflies and moths
Bouteloua gracilis	blue grama	larval food for 13 native butterflies and moths
Buchloe dactyloides	buffalograss	larval food for no native butterflies; needs further research
Carex species	sedges	especially hairy and tussock sedges, larva food for <b>36 native butterflies</b>
Elymus canadensis	Canada wildrye	<i>Elymus</i> genus is larval host for <b>29 native</b> <b>butterflies</b> ; <i>Elymus canadensis</i> larval food for 3 native moths
Koeleria macrantha	June grass	Larval food for 5 native butterflies and moths
Panicum virgatum	switchgrass	food and winter cover for birds; larval food for 6 native butterflies and moths
Schizachyrium scoparium	little bluestem	larval food for 11 native butterflies and moths
Sorghastrum nutans	Indian grass	larval food for 2 native butterflies and moths
Spartina pectinata	prairie cord grass	larval food for 4 native butterflies and moths
Sporobolus heterolepis	prairie dropseed	larval food for 6 native butterflies and moths

### **Drier, Upland Sites:**

Bouteloua gracilis blue grama 'Blond Ambition' white panicles, taller to 3' Bouteloua curtipendula sideoats grama Schizachyrium scoparium little bluestem 'Little Luke' red and 24 inches; 'Smoke Signal' dark purple 'MinnBlue A' Blue Heaven<sup>™</sup>, from U of MN 'Blue Paradise' 30 inches, NEW Sporobolus heterolepis 'Tara' or 'Morning Mist' NEW in 2019 Mesic Sites: Andropogon gerardii big bluestem 'Indian Warrior', 'Lord Snowden', 'Red October' 'Dancing Wind' 'Black Hawks' NEW upright dark purple

Deschampsia caespitosa turfted hairgrass SHADE TOLERANT

Panicum virgatum, switchgrass 'Dallas Blues': taller, large purple panicles 'Cloud 9', Thundercloud', very tall, large 'Shenandoah': 'Prairie Fire', 'Ruby Ribbons' red and purple 'Northwind' upright, stiff; 'Cape Breeze' shorter

#### Grasses, sedges and rushes for wet sites, native unless noted

sweet flag, Acorus calamus, European and A. americanus palm sedge, Carex muskingumensis lake sedge, Carex lacustris river oats, Chasmanthium latifolium American mannagrass, Glyceria grandis common rush, Juncus effusus hard or blue rush, Jucus inflexus, Europe switchgrass, Panicum virgatum prairie cordgrass, Spartina pectinata

#### Lakeshores, can tolerate changes in water level and standing water, all natives,

2 cultivars are human selections of the native species bluejoint, *Calamagrostis canadensis* bottlebrush sedge, *Carex comosa* mace sedge, *Carex grayi* lake sedge, *Carex lacustris* palm sedge, *Carex muskingumensis* variegated palm sedge, *Carex muskingumensis* 'Oehme' 'Little Midge' palm sedge, *Carex muskingumensis* 'Little Midge' tussock sedge, *Carex stricta* American mannagrass, *Glyceria grandis* prairie cordgrass, *Spartina pectinata* 

Hakonechloa macra hakone grass

H. macra 'All Gold' 'Aureola' hakone grass

#### Human Benefits of Grasses

- Natural appearance
- Few insect or disease problems
- Low nutrient requirements
- Little maintenance, except spring cutback
- More than one season of interest
- Fast growth, most are mature size by three years
- Varied texture, from fine fescues to coarse giant miscanthus
- An array of foliage colors from many shades of green to blue, yellow, bronze and red, as well as several variegated forms
- Movement with the wind provides visual and audio interest, susurration that is pleasing and unique

#### Use with Caution: 3 different miscanthus:

Miscanthus sinensis: bunch grass, 50 cultivars:

'Grazielle';'Zebrinus', 'Variegatus', 'Klein Fontaene' 'Purpurescens' 'Sliberfeder' *Miscanthus sacchariflorus:* invasive rhizomes, early white flowers, escaped in Minnesota

*Miscanthus xgiganteus:* 10-14' tall, 1-2"wide foliage, flowers late, no seeds *Miscanthus* should only be planted in managed landscapes where it can be watched for self-seeding. For more information, see: http://www.horticulture.umn.edu/miscanthus/

Management: Cutback tops in late winter, burn large areas with timing to manage native animals and insects.

#### **RESOURCES:**

Ornamental Grasses for Cold Climates, updated 3<sup>rd</sup> edition, 2012; \$12.95+ available from:

Minnesota Landscape Arboretum Gift Shop and online: http://www.mnarbonline.com/Gift-Store-C27.aspx

# Benefits of Native Grasses website: grasses.cfans.umn.edu several handouts and posters

Grass Blog: grasstalk.wordpress.com; Twitter: marygrasses email: <u>meyer023@umn.edu</u>

#### FREE ebook: Gardening with Native Grasses in Cold Climates: https://z.umn.edu/nativegrasses

#### Top 10 Grasses 2019 Green Expo MHM presentation (native in bold)

- Andropogon gerardii 'Blackhawks' Illinois native selection PP
- Carex pensylvanica Pennsylvania sedge Midwest and Eastern US native
- Carex muskingumensis palm sedge Midwest and Eastern US native
- Hakonechloa macra hakone grass Japanese origin
- Molinia caerulea subspecies arundinacea 'Skyracer' European origin
- Panicum virgatum 'Cape Breeze' Martha's Vineyard, MA native selection PP
- Panicum virgatum 'Northwind' Wisconsin native selection
- Schizachyrium scoparium 'Blue Heaven' Minnesota native selection, PP
- Schizachyrium scoparium 'Blue Paradise' Walter's Gardens, MI breeding PP
- Sporobolus heterolepis 'Morning Mist' Wisconsin native selection PP

## Table from ebook by Narem and Meyer:

COMPLETE LIFE CYCLE TABLE		
GRASS +	FLOWER	LEPIDOPTERA
big bluestem	bird's-foot violet	cobweb skipper
little bluestem	Carolina larkspur	cobweb skipper
big bluestem	wild hyacinth	cobweb skipper, dusted skipper
little bluestem	wild strawberry	cobweb skipper, dusted skipper
switchgrass	viburnum spp.	pepper and salt skipper
sideoats grama	penstemon spp.	hilltop little skipper
switchgrass	dogbane	tawny-edged skipper
switchgrass	purple coneflower	tawny-edged skipper
big bluestem	common milkweed	Delaware skipper, Ottoe skipper
big bluestem	pickerelweed	Delaware skipper
switchgrass	swamp milkweed	Delaware skipper
big bluestem	ox-eye	Dakota skipper, arogos skipper
prairie dropseed	black-eyed Susans	Dakota skipper, Poweshiek skipperling
little bluestem	purple coneflower	Dakota skipper, arogos skipper, Poweshiek skipperling Ottoe skipper
prairie dropseed	leadplant	Ottoe skipper
lake sedge	Joe Pye weed	northern/marsh eyed brown