

# ORNAMENTAL GRASSES IN THE NORTHERN GARDEN

Sue Dyer

Kings Creek Trees & Ornamentals



# Impact

- ▣ Large specimen grasses reach impressive heights much faster than trees
- ▣ Even annual grasses can provide impact during the growing season and beyond
- ▣ Areas of group plantings in drifts provides visual impact
- ▣ Softens large objects
- ▣ Ground covers

















































# Versatility

- ▣ Hot, dry settings
- ▣ Wet areas
- ▣ Water gardens
- ▣ Full sun to deep shade
- ▣ Containers
- ▣ Large expanses























# Limitations

- ▣ Many of the varieties most popularized in the gardening press, grow well in warmer climates but do not perform well in Canada.
  - Pampas Grass is ubiquitous in temperate climates like the UK and middle America
  - However, they can sometimes survive in sheltered areas













11/22/2006





# Benefits

- ▣ Changing seasonal interest provides four season interest
- ▣ Sound interest with breezes add rustling sounds along with the visual rippling and swaying movement in the wind
- ▣ Varied colors and textures, interesting blooms
  - Blue, yellow, bronze, reds, whites, variegated foliage
- ▣ Deer resistant
- ▣ Largely unaffected by diseases and pests



































# Benefits (continued)

## ■ Environmental Benefits

- Deep and often fibrous root system discourage gophers and other tunneling critters
- Improves soil conditions and fertility
- Provides seeds for birds and wildlife
- Buffer zones for water features
- Constructed wetlands can use reed fields to form part of small-scale sewage treatment systems

## ■ Low maintenance

- Spring cut back
- Low nutrient requirements
- Few are invasive in Canada





















# Hardiness Zones

- ▣ Indicates the range in which the plant can survive.
- ▣ However, cold temperature is only one factor, other factors...
  - How long the cold lasts
  - Snow cover
  - Moisture in soil
  - Wind
  - Summer temperatures
  - Micro-climates
  - Freeze-thaw cycles

# How to Push the Zones

- ▣ Water during the growing season as needed, but don't over or under water
- ▣ Protect for 3 to 4 seasons until well established
- ▣ Mulch heavily
- ▣ Create a microclimate
  - Plant near a brick or stone wall (south side)
  - Screen from wind
  - Avoid areas where water collects in the winter
- ▣ Don't cut back in the fall
- ▣ Don't crowd or shade



# How to Use Ornamental Grasses in Landscape

- Tall grasses provide shade for smaller plants
- Stabilize slopes and water fronts
- Effective as specimens in borders and ground covers
- Upright form doesn't take up the width of most shrubs
- Mix with perennials for either a formal or naturalized effect
- Provide support for taller perennials that tend to flop
- Hide dying foliage or faded blooms or earlier blooming perennials fading at the end of the season
- Add texture to borders with broadleaf annuals & perennials





















# The Common & the Unusual

- ▣ Miscanthus sinensis
  - Hundreds of cultivars
    - ▣ Upright
    - ▣ Arching
    - ▣ Variegated striped
  - Take care of hardiness as not all cultivars will be hardy here
- ▣ The Unusual
  - Cold weather species – largely unknown since not hardy in warmer climes





















# The Unusual























1 cm













# Slope Stabilization

- ▣ Objective is to create dense root mats using deep rooted species
- ▣ Prairie grass mixture
  - *Andropogon gerardii* – Big bluestem
  - *Schizachryium*(*Andropogon*) *scoparium* – Little bluestem
  - *Bouteloua curtipendula* – Side Oats Grama
  - *Elymus canadensis* – Cananda Wild rye
  - *Panicum virgatum* – Switch Grass
  - *Sorghastrum nutans* – Indian Grass
  - Annual Rye grass – temporary cover























# Slope stabilization (continued)

- ▣ *Carex nigra* – needs regular water but can be used in Sun or Partial Shade – spreading habit
- ▣ *Carex glauca* – good for dry areas
- ▣ *Sporobolus heterolepis* – Prairie Dropseed
- ▣ *Festuca glauca* – Blue Fescue



















# Aquatic shorelines & Floodplains

- ▣ BEWARE of the Fisheries Act !!!
  - Get approvals and permits from MFO
- ▣ *Zizania paustris* – Wild Rice
- ▣ *Spargarium* – Bur reed
- ▣ *Typha angustifolia*– Narrow leafed cattail
- ▣ *Elymus riparius* – River-bank Wild Rye
- ▣ *Hierochloa odorata* (Sweetgrass)





















# Water Gardens and Rain Gardens

- Recent studies by the US Environmental Protection Agency have shown that a substantial amount of the pollution in our streams, rivers and lakes is carried there by runoff from practices we carry out in our own yards and gardens! Some of the common "non-point source pollutants" from our yards end up in our local waterways include soil, fertilizers, pesticides, pet wastes, grass clippings and other yard debris.
- Rain gardens are attractive landscaped areas planted with perennial native plants that do not mind getting "wet feet." Build in a saucer shape, rain gardens allow water to percolate into the ground. The benefits of rain gardens are multiple. Rain gardens:
  - Help keep water clean by filtering storm water runoff before it enters local waterways
  - Help alleviate problems with flooding and drainage
  - Enhance the beauty of yards and communities
  - Provide habitat and food for wildlife like birds and butterflies





downspout



uphill



uphill



downhill

berm











# Grasses for Water Gardens or Rain Gardens

- ▣ *Acorus calamus* 'Variegatus'
- ▣ *Carex comosa*, *muskingumensis*, *stricta*
- ▣ *Chasmanthium latifolium*
- ▣ *Juncus effusus*
- ▣ *Leymus arenarius*
- ▣ *Miscanthus* 'Purpurascens'
- ▣ *Panicum virgatum*
- ▣ *Phalaris arundinacea*
- ▣ *Spartina pectinata*



























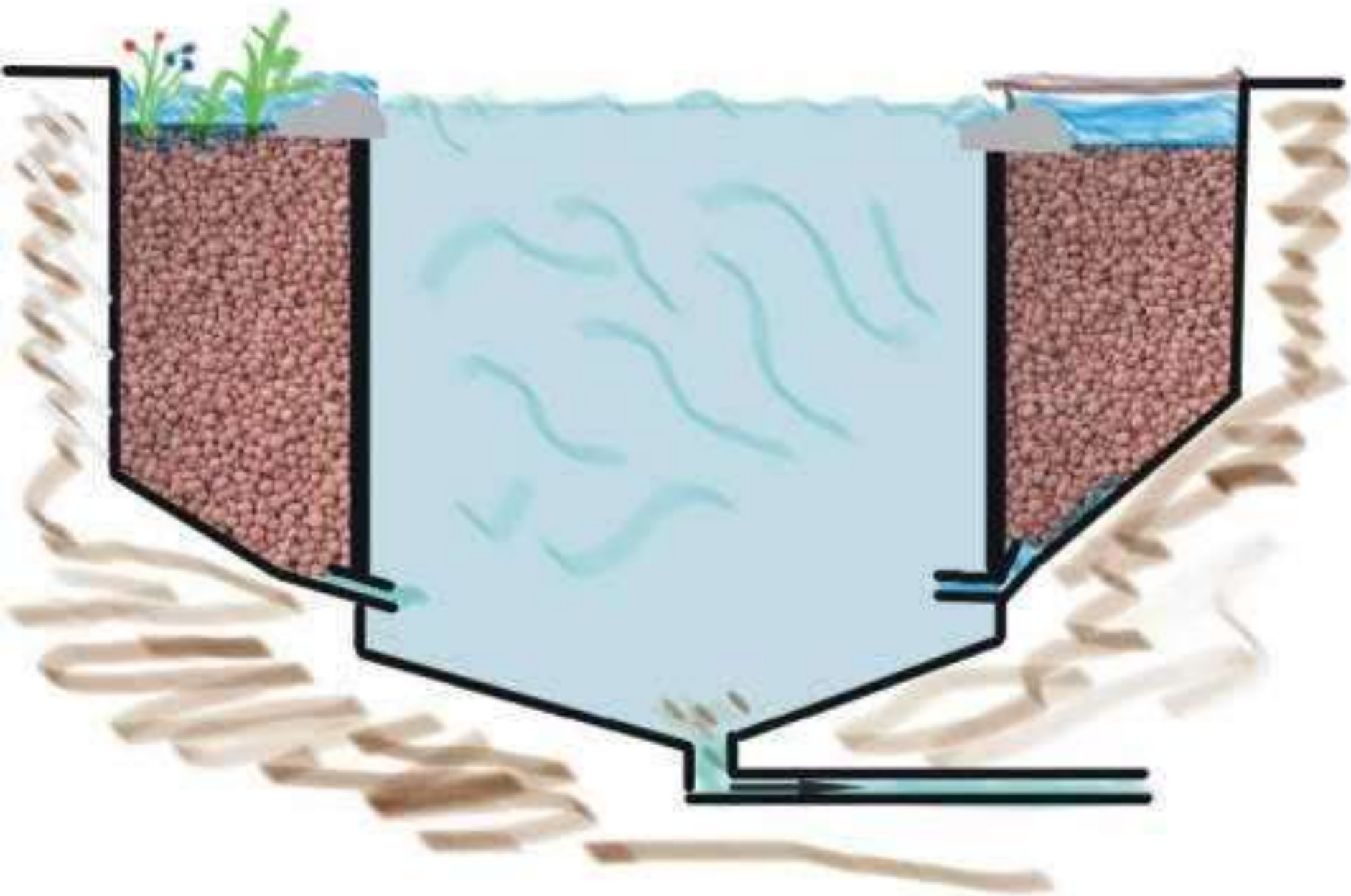






# Swimming Ponds

- ▣ Best overall filter plants
  - Cat tails - Typha
  - Rushes
- ▣ Ornamental Grasses
  - Phalaris
  - Juncus
  - Acorus
  - Dichromena colorata (not winter hardy)
- ▣ Water lilies
- ▣ Canna lilies (not winter hardy)





















# Green Roofs

- ▣ *Agrostis pallens*
- ▣ *Bouteloua gracilis*
- ▣ *Calamagrostis stricta*
- ▣ *Carex densa*, *flacca*, *pachystachya*, *pansa*, *tumicola*
- ▣ *Festuca gailieri*, *glauca*, *idahoense*, *ovina* 'Elijah Blue', 'Glaucous', *rubra*, *scoparia*
- ▣ *Koeleria macratha* (June Grass)



































# Invasive Species

- ▣ Species which decrease plant diversity in large homogeneous stands
  - *Phragmites australis* – seriously invasive non-native alien
  - *Glyceria maxima* – Great manna grass – minorly invasive in southern Ontario
  - *Poa compressa* – Canada Blue Grass
  - *Butomus umbellatus* – Flowering Rush - principle
  - *Poa pratensis* – Kentucky Blue Grass
  - *Phalaris arundinacea* – Reed Canary Grass - principle
  - *Calamagrostis canadensis* – Reed grass



















Caroline Savage, St. Lawrence Centre









# Annuals

- ▣ Non-hardy perennials can be grown as annuals
  - *Nassella tenuissima* – Mexican feathergrass
  - *Pennisetum glaucum* – ‘Purple majesty’
  - *Pennisetum setaceum* ‘Rubrum’
- ▣ Ornamental Grains
  - Golden Foxtail Millet
  - *Melinis nerviglumis*
  - Barley Moonglow
  - Wheat Mesa Desert
  - Barley Braveheart









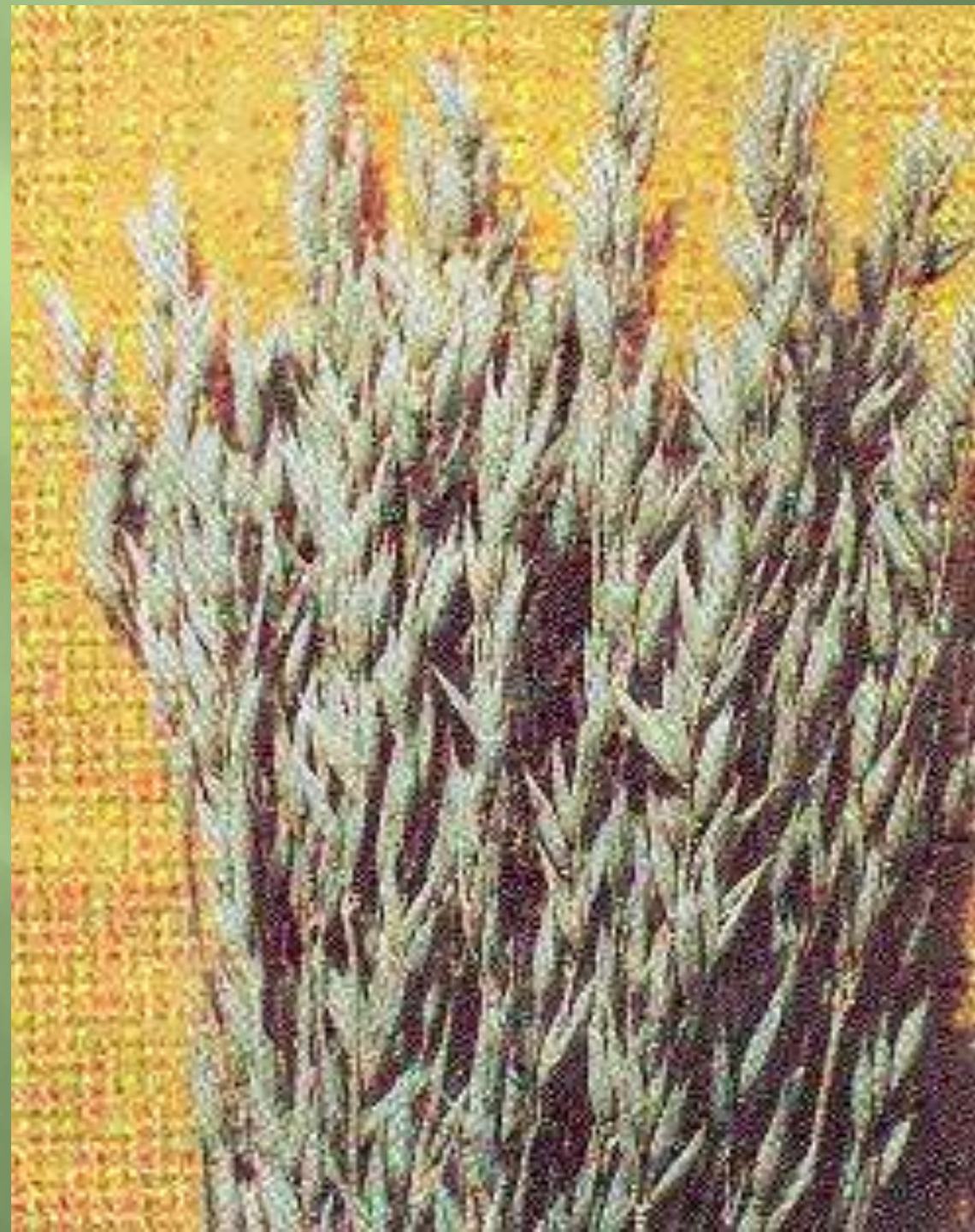


















# Blackhart Barley





# Acknowledgements

- ▣ University of Minnesota Extension
- ▣ William Moore Farms
- ▣ Bluestem Nursery
- ▣ David Stewart