

SUNDRE GARDEN CLUB NEWSLETTER SPRING 2010

ORNAMENTAL GRASSES FOR THE FOOTHILLS

By Kelly Storm

It seems every gardening magazine you open lately, is bursting with gorgeous photos of lovely gardens filled with ornamental grasses. The sunlight glinting off the graceful seeds heads can take your breath away. But then you realize the article was written in the States, or the photos were taken in BC, and you wonder if it is possible to ever have such a beautiful garden here in the Alberta foothills. Yes! You can!

So why is it that ornamental grasses are so eye-catching? They are just grass, after all. In answer to that question, ornamental grasses are perfect for adding texture, height and movement to your garden. They serve as a vertical, fine textured contrast to much of our mounding, medium and coarse textured perennials, which makes them stand out. Not to mention the way they blow and bow in the wind, lending their graceful beauty to our gardens. When the regular gardening season is over, grasses continue to give a strong showing through the fall and winter seasons. In autumn many grasses provide splendid fall color in their foliage and flower heads. Because of their high fiber content, most bounce back even after the heaviest dump of snow has fallen.

These are very low maintenance plants once established. There is no need to fuss over them or give them extra care. Pests are rarely a problem, though they may be appetizing early in the spring, most wildlife will pass them over for more tasty garden species once summer arrives. Let them stand in all their glory throughout autumn and winter, and in the spring, remove growth by cutting it 4-6" above the ground.

Most of the grasses we consider ornamental are clumping or bunching types. But some of the traveling grasses (like Ribbon grass) can be fabulous in a garden if they are contained in a large pot and then planted in the earth up to the pot's rim. Or plant them where the erosion control quality is a benefit. Avoid areas where they will escape to native regions, or to the rest of your garden.

Ornamental grasses have been used in Europe since the 1700's; and were made popular in eastern America in the 1970's. So why has it taken so long for the ornamental grass craze to hit the Canadian prairies? Ironically, we have taken grasses for granted; thought of them merely as a 'pasture plant' or as a weed; considered them for industrial uses, but not as an ornamental. Thankfully, we are now taking a look at grasses for their ornamental qualities and starting to include them in our landscapes.

Shopping list of the 8 best hardy ornamental grasses for Zone 2-3

- ***Calamagrostis* cultivars** – Feather reed grass
- ***Deschampsia caespitosa* cultivars** – Tufted hair grass
- ***Festuca* species & cultivars** - Fescue
- ***Helictotrichon sempervirens*** – Blue oat grass
- ***Koeleria* species** – June grass
- ***Luzula* species** – Wood rush
- ***Panicum virgatum* cultivars** – Switch grass
- ***Phalaris arundinacea* cultivars** – Ribbon grass

Most ornamental grasses are perennial in the true sense of the word, meaning they grow back from the crown year after year, but in Alberta where we are Zone 2 or 3, only the hardiest grasses are supposed to survive. Perhaps not enough research has been done, but it is difficult to find reliable zone ratings for grasses. Every reference seems to rate them independently, so don't be afraid to try a grass whose label reads Zone 4 - it may prove to be perfectly hardy in Alberta. If you have a cushy little microclimate, you may even find Zone 5 or 6 grasses will over-winter! So try a few this year, you won't be disappointed.

JUMP START SEEDS WITH GELATINE

It's almost de rigueur for Prairie gardeners to start seeds indoors during long winter months to wring a few extra weeks out of a notoriously short growing season. Sowing seeds in soilless mix is the usual route, but Willem Kuyt, a Carvel, Alberta, gardener and nursery owner, uses a less traditional medium.

Kuyt says using gelatin, which is rich in phosphorus and calcium, improves germination rates and produces sturdy seedlings. It's also less expensive and cleaner to work with than soilless mix, he says. Kuyt moved to Alberta from Holland two years ago, where gelatin is used in universities to start seedlings indoors. Here's how it's done.

The following recipe yields enough gelatin to fill one 50- by 25-centimetre tray or four 12.5- by 25-centimetre trays. Alternatively, use short Mason jars. You don't need to water the germinating seeds, so drainage holes aren't necessary. Whatever containers you use, make sure they're deep enough to allow for a five-centimetre layer of gelatin, which will accommodate about 1,000 tiny seeds (like poppy) or 200 large seeds (like bean).

Preparing the gelatine

In a 5-litre saucepan, sprinkle 150 millilitres of unflavoured gelatine powder over 500 millilitres of cool water. (Gelatine packages generally come in 15-millilitre envelopes, so for smaller batches, divide water and fertilizer amounts by 10.) Pour 500 millilitres of boiling water into the mixture and stir one to two minutes, until gelatine dissolves. Add 30 millilitres of water-soluble fertilizer such as 20-20-20; stir for another two minutes. Add 2.5 litres of boiling water, stir lightly and pour into wide-mouth Mason jars. Boil the jars in a canner for five minutes to sterilize the growing medium. Let cool to below 38°C, then pour the mixture into plastic trays that have been washed with a 10 per cent solution of bleach and water, and then rinsed, or small Mason jars that have been sterilized. Place clear plastic or glass coverings over the trays or jars and let sit overnight.

Planting your seeds

The next morning, sprinkle seeds liberally over the surface of the set gelatine, and press gently with your hand until the seeds are just below the surface.

- Place containers under fluorescent lights that almost touch the coverings. This will keep seeds at a comfortable 15°C while they germinate.
- If mould develops on the gelatine before the seeds germinate, spray with a 10 per cent solution of bleach and water; if seedlings have emerged, use a 10 per cent solution of lemon juice or vinegar and water.
- When seedlings reach 2.5 centimetres, remove the covering and raise the lights to 2.5 centimetres above the plants.

In about three weeks, most seedlings will be eight centimetres tall and ready to be transplanted into individual pots or cell-packs, and placed in cold frames for hardening off. Slip the seedlings out of the gelatine with your fingertips—any residual mix on the plants won't harm the transplants.

DISEASES OF VEGETABLES AND SMALL FRUIT

Courtesy of Greengate Garden Centre

Botrytis gray mold

Botrytis gray mold is a fungus that can start first in flowers, which turn brown and dry. It moves to stalks and leaves, then fruit, causing gray 'fuzz' and rotting fruit. Botrytis is common on strawberries, raspberries, Saskatoon's, and chokecherries. It can also affect vegetables such as broccoli, cauliflower, cabbage, and lettuce. It causes brown, water-soaked areas, which become covered with a gray mold. Spores become air-borne and also spread when handled. Cultural Control - Rotate vegetables, planting no vegetables of the crucifer family two years in a row. Make sure soil drains well, don't over water, and space plants well apart. Water plants in the morning so foliage is dry before nightfall. Our nights are cool, causing moisture to condense on cool foliage, which encourages infection. Greenhouses need good ventilation to reduce humidity and increase air circulation. Chemical Control - none registered for domestic use.

Powdery mildew

Powdery mildew causes a white, floury coating of fungal spores on strawberries, raspberries, currants, gooseberries, peas and beans. It affects leaves, young shoots, flowers and fruit, and is most problem in humid, cool weather, and poor light, when it multiplies in moisture on leaves. It is spread by wind in warm dry weather. Leaves are distorted and curl upwards, and severely affected leaves may die. Powdery mildew over winters in leaf debris on soil Cultural Control - Prune to encourage air circulation and increase light levels; remove leaf litter, plant disease-resistant cultivars. Baking soda sprayed repeatedly can give some

measure of control, but can also increase pH levels, causing iron chlorosis, which is already a problem on raspberries and strawberries in Calgary. Chemical Control – Use garden sulfur, copper spray, Folpet (common in insecticide/fungicide sprays for garden use), or Benomyl.

Verticillium wilt fungus

Verticillium wilt fungus affects potatoes, tomatoes, raspberries and strawberries. It enters the plants through roots at flowering time. Lower leaves wilt first and as the fungus moves up the plant; leaves turn yellow, then brown. Only some stems are affected. Verticillium wilt comes from infected seed potatoes, or from infected soil, including soil in which purchased transplants are grown. It can last from two to seven years in soil. Cultural Control - Rogue out affected plants, rotate crops.

Fusarium wilt fungus

Fusarium wilt fungus enters potato plant roots from cool, wet soil and causes the lower part of the stem to rot. When warm weather arrives, the plant wilts because water cannot reach top of plant through infected stem, which may be completely girdled. Leaves roll upwards, often turn purple and form tight rosettes. Spores over winter in debris and in infected potatoes saved to be used for seed. Cultural Control - Plant resistant varieties; (marked V or F after name on tomato seed packages) Rotate crops, not using the same plants in the same soil for 3-4 years. Rogue out infected plants immediately. Improve soil drainage. Chemical Control – none.

Damping off

Damping off is caused by several specific fungi which live in the soil and destroy seedlings just before they emerge from the soil, or causes them to collapse as the leaves begin to grow. Stems often have a dark, thin, wire-like area near soil level which is narrowed, and prevents moisture from reaching tops of plants. Cultural Control - Use sterile soil less mixes for starting seeds, clean containers, thin to prevent overcrowding, do not keep too wet or too cool, rogue out infected plants immediately. Chemical Control - 'No Damp' is registered for this use.

Tobacco mosaic virus

Tobacco mosaic virus is one of several virus infections causing mottling of leaves and distorted growth of tomatoes; tools and insects mostly spread it. Cultural Control - spread by sucking insects, mostly aphids, so insect control is important.. Rogue out all infected plants.

Red leaf of rhubarb

Red leaf of rhubarb refers to two conditions - one bacterial, one viral. The bacteria causes rotting of the crown until a cavity forms, and dull red leaves. The plant quickly dies. The virus causes stunted growth and red leaves. The plant dies gradually over several seasons. There is no cure for either disease - remove plants and plant new ones in a different location.

Blossom end rot

Blossom end rot of tomato and pepper is a cultural problem. Water-soaked areas on the end of the fruit turn dark brown and become dry and leathery. Irregular watering prevents calcium uptake, even though there is plenty in our water and soil, so care taken to maintain sufficient moisture in the soil is essential. It does no good to add extra calcium. Some varieties of tomato are susceptible (Roma, Beefsteak), some are resistant (Early Girl, Champion, Husky Cherry Red).

Potato greening

Potato greening is caused by exposure of the tubers to light - glycoalkaloids occur naturally in the tubers in low concentrations, but increase when exposed to light, and make them taste bitter. Peeling off the green layer makes them edible.

Bacterial speck

Bacterial speck of tomato causes small, dark brown spots on the fruit, which do not extend deeper into the fruit. It is spread by rain and watering. Cultural control - grow in sterile potting mix, water soil, not foliage, if possible, and early in the day. Rogue out infected plants, clean tools! Do not plant tomatoes in the same soil as infected plants have grown for at least two years. Chemical control – none

Black leaf

Black leaf of Saskatoon is caused by a fungus related to the one causing black knot on Shubert cherries. The underside of the leaves are covered with a black fungal mat. Infected shoots produce witches' brooms, which enlarge each year. Dead leaves, containing the fungus, remain on the branches over the winter, which infects new growth in the spring. Berry production is affected. Cultural control - remove infected branches, clean tools! Chemical control - none

News from your President

I'm sure everyone is looking forward to the year ahead. Hopefully it will be a lot better than last year. We will certainly have more moisture to start with, with all the snow we have.

Seed catalogues are all out, there is lots of new plants available. Don't forget to order early so as not to get substitutes. I will have all my catalogues at our meeting. Don't forget if you're starting your own seeds to use sterile starting medium and if using used containers be sure to sterilize them with 1 part bleach to 10 parts water.

With our short season we need to beat the elements with early flowers. Here are some that are hardy. Pansies, snapdragons, sweet William, bachelor buttons, and dusty millers. African daisy, petunia, stocks, verbena, English ivy will take 1 or 2 degrees of frost, Harden them off and then plant the beginning of May. Throw an old sheet over them if frost is forecasted.

Thanks to John Edwards we have **Jim Hole from Hole's Greenhouses coming June 9**. Lots of planning to do. Anyone willing to be on planning committee please phone me. Need some one to design an advertising poster also.

Happy gardening for 2010

Joan

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