

RGA Gardening Fact Sheet #8: *Lawns*

Gardening enhances our personal and community space. All plants, from trees to flowers, beautify our living area, provide edible food and offer environmental benefits ranging from the oxygen we breathe to creating summer shade to cool our homes. By growing plants, we better appreciate our natural environment and the ecological relationships between soil, water and climate. Gardening helps the young to the young-at-heart understand the responsible use and protection of our natural environment, as well as the impact we have on the “big picture” of environmental stewardship.

With support from the Conexus Credit Union's (CCU) Community Investment Program, the Regina Garden Associates (RGA) at the Regina Floral Conservatory aim to promote environmental stewardship through a series of gardening fact sheets, teaching appreciation of growing plants and basic gardening practices to the general public. Visit the Regina Floral Conservatory often and continue learning about gardening through our fact sheets.

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Lawn

Lawn refers to space planted with grasses that are typically mowed, fertilized and watered. For homeowners, lawn use is a combination of aesthetic as well as functional value from entertaining to sports to play areas for children. Traditional high input gardening practices for lawns are changing to reflect needs for water and energy conservation and for reducing health risk from pesticide application. Canadian provinces and urban municipalities are considering and in certain cases enacting legislation and bylaws to reduce use of pesticides for non-essential use. For a healthy lawn, this Garden Fact Sheet introduces options for sustainable lawn establishment and care practices while following integrated pest management techniques.

Planning Considerations

How much space is needed for a lawn depends on first identifying one's specific needs and on matching to the size of the residential lot. Over time, homeowners' needs change with the number of occupants and their age related needs. It is reasonable to expect one's needs for lawn space will change and yard renovation may be needed in the future. Further, new home properties have seen a trend to larger homes on smaller lots. In general, the cost in time and expense to install and care for a lawn is proportionate to the area of lawn space. Environmental considerations for reducing water use and application of inorganic fertilizers and pesticides can be addressed through a combination of reduced lawn area, changing the type of grass, and altering gardening practices. Reducing lawn space need not be an all or nothing decision. A landscape design plan can attractively integrate the components of lawn with flower, vegetable and shrub beds, ground covers, mulches and features like decks, patios and walkways.

Site Preparations

Prepare your site in stages. Remove existing sod and perennial weeds, including their roots. Evaluate the quality and texture of existing topsoil to a depth of 1 ft (30 cm). The objective is to prepare a fertile, well worked soil that will support deep rooted grasses. Incorporate new topsoil to ensure the lawn site has a minimum of 6 in (15 cm) up to 12 in (30 cm) loam topsoil including 2 in (5 cm) organic matter of peat moss or well-rotted animal manure. To ensure water drainage away from buildings, walks and driveways, grade soils so as to slope two to five per cent away. Complete hardscape features of raised beds, retaining walls, decks, patios and walkways. Next, install paver edging as a mowing strip along the edge of hardscape features. If on clay soil, select a sandy loam with organics to improve aeration and seed contact with water and soil nutrients. Level and lightly compact the topsoil with a roller so that the final grade is 1 in (2.5 cm) below walks and driveways. Incorporate into the soil 5 lb (2.3 kg) of 11-48-0 inorganic fertilizer per 1,000 ft² (93 m²) or alternatively, for organic fertilizer, incorporate additional compost and bone meal. Water and hand pick weeds for three weeks prior to seeding or sodding.

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Options for Grass

Improve lawn survival by selecting two or more cool season grass cultivars from at least two species of grass. Species typically making up a conventional lawn include: Kentucky bluegrass (*Poa pratensis*) and Creeping Red Fescue (*Festuca rubra* var. *rubra*). They comprise multiple cultivars that have been bred for attributes like disease resistance and cold tolerance. Kentucky bluegrass prefers full sun and needs high inputs of fertilizer, water and mowing. Suggested seeding rate for Kentucky bluegrass is 1-1.5 lb/1,000 ft² (0.5-0.7 kg/92 m²). Creeping red fescue tolerates shade, low fertility and drought. Suggested seeding rate for creeping red fescue is 3.5-4.5 lb/1,000 ft² (1.6-2.0 kg/93 m²). Full sun and shade seed mixtures are sold for the various cultivars. The resulting traditional lawn is made up of a fine-textured grass that wears well for sitting; is coloured from medium to dark green; but, requires intensive care and input costs. An alternative for residential lawns is fine-textured Fescue (*Festuca*) grasses, which can improve sustainability by their lower water and fertility needs, as well as reduced frequency for mowing. In addition to creeping red fescue, suggested species and their cultivars sold individually or in eco mixes include: chewings fescue (*Festuca rubra* var. *commutata*), sheep fescue (*Festuca ovina*) and hard fescues (*Festuca ovina* var. *duriuscula*).



Source: flickr.com

Seed or Sod

For sod recommended installation time is spring, summer or early fall, and for seed, it is late spring or mid- to late August. Rake and moisten the soil the day prior to seeding or sodding. For seed, use a mechanical spreader then cover seed by raking or applying a thin layer of topsoil. For sod, install upon delivery; fill spaces between sod pieces with topsoil; roll sod lawn to ensure ground contact and; water thoroughly. Frequently water newly seeded lawns with a fine spray to avoid drying out.



Source: flickr.com

Tips for On-Going Care for a Healthy Lawn

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- Mow with sharp blades when grass height reaches 4.5 in (11 cm) and cut to 3 in (8 cm) height through the growing season. Cut no more than 1/3 of the shoot length. This care promotes growth, reduces potential for weed germination, conserves moisture, and ensures the best insulation for over-winter survival.
 - Promote deeper root growth by watering less frequently and; water through the root zone to a depth of 8 in (20 cm). Weekly suggested amount is 1 in (2.5 cm) or greater under hot windy conditions.
 - Spring aeration of heavy clay soils can reduce compaction and thereby increase air, water and nutrient contact with roots. Rake up the aeration cores and rake in coarse sand and compost.
 - If the grass thatch is greater than 0.5 in (13 mm), remove by raking. Thatch build up is normal, but a build up can reduce water and nutrient movement down into the soil.
 - Top dress bare patches with topsoil mixed with compost and overseed with drought resistant fescue and perennial rye grass seed. This is an on-going process of continually improving a lawn wherever there is damage.
 - The amount of fertilization is dependent on the grass species/cultivars present. For inorganic fertilizers, nitrogen and phosphorus are applied early in the growth period and then followed up with nitrogen through the growing season. Potassium is not considered limiting to plant growth in Saskatchewan's soils. For traditional Kentucky blue grass and creeping red fescue lawns, application of inorganic fertilization per 1000 ft² (93 m²) would occur around May 15 (apply 5 lbs (2.3 kg) of 27-14-0 or 26-13-0); July 1 (apply 4 lbs (1.8 kg) of 34-0-0 and; August 15 (apply 4 lbs (1.8 kg) of 34-0-0. There are options for organic fertilizers which include: (1) adding nitrogen by regular top dressing with compost and compost tea plus alfalfa pellets, blood meal and returning grass clippings; and (2) adding phosphorus by top dressing with bone meal.
 - Minimize pesticide use and apply integrated pest management techniques as follows for weeds. Focus on prevention by site preparation and grass selection and following points 1-6. Regular inspection of the lawn is essential. Identify the specific weed and understand the plant's biology. Assess if action is needed and if yes, apply a variety of solutions. Mow annual weeds prior to flower and seed set. Hand-remove perennial weeds and their roots. Spot spray weeds with horticultural vinegar and with less toxic post emergent broad-leaf herbicides containing iron-based chelates. For a preventive weed control on new weed seed germination, apply a corn gluten meal. Please note that separate Garden Fact Sheets will be produced with greater detail on the topics of managing weeds, plant diseases and garden insects.

Other Resources

Online

University of Saskatchewan, College of Agriculture and Bioresources – Community Resources, **Garden Line, Yard and Garden website** <http://agbio.usask.ca/community-resources/gardenline/yard-garden.php>
Health Canada – **Pesticides and Pest Management** <http://www.hc-sc.gc.ca/cps-spc/pest/index-eng.php>

References

Health Canada. **Healthy Lawns** <http://www.hc-sc.gc.ca/cps-spc/pest/part/protect-proteger/lawn-pelouse/index-eng.php>
Rama, Lauren. 2011. **Eco-Yards – Simple Steps to Earth-Friendly Landscapes**.
Saskatchewan Ministry of Environment. 2010. **A Guide to Reducing the “Cosmetic Use” of Herbicides in Saskatchewan**
Williams, Sarah & Hugh Skinner. 2011. **Gardening Naturally – A Chemical Free Handbook for the Prairies**
Williams, Sarah. 2013. **Creating the Prairie Xeriscape**