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Turf in the Landscape

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Turf is a significant part of successful landscaping. This NebGuide explores the benefits and uses of turf in the landscape.

To many people, landscape design means choosing the right tree, shrub or flower for a particular place. An important aspect of the landscape often overlooked, however, is the use of turf. Turf often becomes the leftover areas in the landscape rather than an integral design element. This publication describes the environmental, functional and design benefits and uses of turf in the landscape.

A number of terms, such as xeriscaping, environmentally friendly landscaping, and sustainable landscaping have been used to refer to low maintenance landscapes. Reducing turf areas in the landscape is one concept these terms often imply. Turf has earned an unfavorable reputation because of the high inputs (fertilizer, water, time, and pesticides) some golf courses and homeowners put into their turf compared to other areas of the landscape. The positive aspects of turf often are neglected. Turf areas reduce soil erosion, protect groundwater, visually unify the landscape, create an aesthetic foreground for other plants, and provide an ideal surface for outdoor activities. Turf is an integral component of the landscape. It provides *environmental, functional and design benefits* and *uses* in home landscapes, parks, and commercial sites.

Environmental

Many people avoid turf or reduce turf areas in their landscapes because they perceive turf as a high maintenance and environmentally insensitive plant. But properly used and maintained, turf provides many environmental benefits. Turfgrass:

- **Reduces soil erosion and runoff.** The dense leaves, thatch, mat and roots of the turfgrass system provide an excellent groundcover that significantly reduces soil erosion and water runoff when compared to

other landscape plants or bare soil. Bare soil losses from wind and water can be several tons per acre per year.

The turfgrass system can efficiently reduce groundwater and surface water contamination from fertilizers and pesticides applied by capturing, retaining and using them. Turf also protects water sources when excessive applications are inadvertently applied. Fertilizers or pesticides that are applied to bare soil are more likely to contaminate water sources than those applied to turf.

- **Provides a cooling effect and reduces glare.** Patios, concrete walks and other nonliving landscape materials used as walking surfaces reflect significantly more light than turf. This reflection can cause glare and on sunny days can be visually uncomfortable.

Evapotranspiration is the cooling process of all living plants, including turf. In contrast, nonliving landscape elements do not evaporate water through transpiration. As a result, turfgrass areas reduce ground surface temperatures. Turf provides a cool, nonglare surface that is pleasant to walk on, sit on and look at.

- **Reduces noise.** Using turf instead of concrete on road embankments can reduce traffic noise by nearly 200 percent. Turf also increases water infiltration on slopes which minimizes water run-off, soil erosion and potential environmental contamination.

Functional

Turf areas in the landscape often are looked upon as being large and wasteful because of the time and energy needed to maintain them, but turf provides many functional benefits in the landscape. Turf:

- **Provides an ideal surface for recreation and sports fields.** Unlike other landscape plants, the turfgrass growing point is near the soil surface. This allows turf to be mowed at relatively low heights, which provides optimal playing surfaces for many recreational activities. Turf also is very wear tolerant and resilient compared to other groundcovers, which is necessary in high use areas such as soccer fields, backyard play areas and courtyards.

- **Provides a surface that is easily maintained.** For beginning or less-trained landscape managers, turf is typically easier to maintain and manicure than other landscape plants. It does not require the pruning and watering skills that are required to properly maintain trees, shrubs, flowers and other groundcovers.

Once the mower is set at the desired height, all of the leaves are cut (pruned) at the same height. The only two pruning techniques you must remember with turf are when to change the mowing height and to keep the mower blade sharp to maintain good

visual appearance and to reduce disease and water loss. Mowing heights can be changed very easily with today's mowers that are adjusted by moving the wheel level. With mulching mowers now available, mowing does not result in left over material that needs to be disposed of in the landfill.

Generally, turf areas can withstand over- or under-watering better than other landscape plants can. To learn proper watering techniques for all landscape plants, see related publications in our Extension publication library.

Controlling weeds in turf is generally easier than in other groundcovers, perennials or shrub beds. With proper mulching however, weeds can be effectively controlled in planting beds. By keeping a dense, healthy turf, most weeds can be easily kept out.

- **Provides different levels of management.** Compared to other landscape plants, turf has many species available that can all effectively contribute to a highly unified visual affect.

In combination with other plants, this Kentucky bluegrass lawn helps reduce reflected glare from the light colored house and the front sidewalk. The turf and other landscape plants also soften the architectural lines that define the building and paving. In addition, the mowed turf in this photograph provides a low, uniform foreground that helps accentuate the different colors, forms and textures of the perennials' and shrubs' leaves and flowers.





The dense leaves, thatch, mat and roots of the turf help reduce soil erosion and chemical runoff by capturing, retaining and using applied irrigation water, fertilizers and pesticides.



The turf-type tall fescue in the foreground is an example of a quality low maintenance turfgrass that offers good wear and drought tolerance, as well as good color. People who want a turf with lower maintenance requirements than Kentucky bluegrass are using turf-type tall fescue more commonly in their landscapes.

In turf areas where minimal to light usage will occur, buffalograss (midground) can further reduce maintenance. Buffalograss has the ability to still be functional with very little mowing, fertilizing and watering.

Changing turf mowing heights in the landscape provides an interesting visual contrast between turf species and with other landscape plants. These visual contrasts are important in developing a sense of depth and interest within the landscape.

Turfgrass species should be selected based on use, intended level of management and aesthetic necessities. For further information regarding selection of turfgrasses in Nebraska, see *Cool Season Turfgrasses for Nebraska*, NebGuide G1016, and *Recommended Turfgrass Cultivars*, NebFact NF65.

- **Minimizes injuries.** Artificial turf became popular in the 1980s on athletic and all-purpose fields due to the ability to withstand hours of wear and use in poor weather conditions. Although it has some benefits, artificial turf is not without negative characteristics. Studies have found that artificial turf fields produce more injuries and higher field temperatures than natural turf.

Design

Often, areas in a landscape design that are intended as turf are identified only as turf or not identified at all on the plan. They are usually areas left over after all the beds and plantings have been identified. Instead, careful thought should be given to the turf species used and the placement of turf in the design for many reasons. Turf:

- **Provides an attractive foreground.** Turf provides an excellent foreground for other plants, since green is a “neutral” color and all turfgrasses are a shade of green during the growing season. Flowers or plants that have a different foliage color are good contrasts with turf. The low height of turf against taller plants provides a good visual contrast and also gives a sense of depth to the landscape. In addition, the fine texture of turf creates interesting contrasts when viewed adjacent to plants with large leaves or rough bark.
- **Adds spaciousness to an area.** Maintained turf is usually mowed at heights no greater than 3 1/2 inches. This creates an open area that makes the space appear larger than if the vertical plane was broken up with plantings of trees, shrubs and flowers.
- **Connects the landscape.** Located throughout the landscape, the repetition of turf visually connects otherwise unlinked areas into a unified whole.
- **Defines Landscape Space.** Well-designed turf areas contrast with adjacent plant heights, textures and colors that can define “rooms” in the landscape. Landscape rooms with turf “floors” can vary in size and relative scale, but in all cases the turf should have simple straight or curved edges and be of sufficient size

to simplify maintenance, allow equipment access, and use standard irrigation components. Turf, because of its accessibility, also provides a strong invitation to enter and experience a landscape, especially if a sense of flow is established with interesting and maintainable turf shapes.

- **Enforces line/form of other landscape features.** Turf edges can be used to enforce other ground-plane lines/forms that are created by paths and other hardscape elements (pools, planters, etc).

Turf edges with tight curves and odd angles should not be used because they detract from the landscape and make it more difficult to efficiently mow and water. Turf edges should meet beds and hardscape objects at a right angle (ninety degrees) whenever possible; narrow angles can create small slices of turf, plants/mulch or landscape that are more difficult to maintain.

- **Softens hardscape surfaces.** Including decks, patios, benches, pavers and other hardscape elements is important to complete the design of a landscape. But, using hardscape elements on the ground plane can become overwhelming when used over large areas. Turf provides one alternative in breaking up and softening the ground plane.

Summary

Used effectively, turf is an important component of the landscape. It provides many environmental, functional and design benefits in the landscape. Effective use depends on proper species and cultivar selection, appropriate match to landscape conditions (soils, available water, etc.), integration of turf areas from both form and function perspectives, and a clear maintenance level commitment. Rather than reduce or eliminate turf areas, use turf to create a more aesthetically pleasing, functional and environmentally friendly landscape.

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