



## Ground Covers for Your Home

The Loudoun County Master Gardeners<sup>1</sup> have planted here examples of ground covers you might want to consider for your home. Five of the plots are turf grasses; three are alternatives to turf grass.

**Why alternatives?** Growing a lawn here in Northern Virginia is difficult, expensive, and could prove harmful to the environment if treated with excessive fertilizer or lawn chemicals.

- Northern Virginia has no grass that is truly suited to the area. For centuries before colonists arrived, the Mid-Atlantic region was covered in hardwoods. No native grasses developed. Consequently, today's homeowner looking for a ground cover must choose between warm weather grasses indigenous to areas further south, or cool weather grasses indigenous to areas further north. Neither is entirely satisfactory for Northern Virginia.
- The dollar cost of a lawn is high. In one study, the EPA estimates \$700 per year per 1000 sq ft of lawn, including installation, maintenance, and watering. That means the usual residence with 3000 sq ft of lawn could cost over \$2,000 per year.
- Many homeowners, striving to create "more perfect" lawn, tend to overuse fertilizer and pesticides. The runoff pollutes streams and rivers, and endangers our local water quality.

**Traditional Turf Choices.** Nevertheless, a well tended turf lawn has enduring appeal for most home owners. For them, we have planted five basic turf varieties:

- Kentucky blue grass
- fine fescue
- tall fescue
- Bermuda
- zoysia.

The first three of those are referred to as cool season grasses because they thrive in cooler weather, but go dormant – brown out – in draughts and very hot weather. The final two are warm weather grasses. They thrive in hot weather and brown out in cool -- late fall to early spring. Cool weather grasses are the most common in this area, so let's begin with them:

### Cool-Season Grasses

The three types of cool season grasses planted here are the most common used in Northern VA..

Grass Type	Shade Tolerant	Disease Resistance	Wear Tolerance	Nitrogen Requirement	Heat Tolerance	Drought Tolerance	Recovery Potential
Kentucky Blue	Poor	Variable	Good	Variable	Fair	Fair	Fair
Tall Fescue	Fair	Good	Good	Low	Good	Excellent	Moderate
Fine Fescue	Good	Good	Fair	Low	Good	Good	Moderate

<sup>1</sup> Master Gardeners is a Virginia Cooperative Extension program open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. An equal opportunity/affirmative action employer, Extension is a joint program of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and state and local governments.

**Kentucky Bluegrass** provides a dense, green turf. It is reported to be the most widely used cool-season grass in Northern Virginia, and is usually the most expensive. With regular mowing it makes a thick, uniform lawn, growing strongly in spring and fall, little or not at all in hot weather unless watered, and going dormant in winter when temperatures become cold. Kentucky Bluegrass grows best in full sun and very poorly in shade. It needs average, well-drained soil and steady moisture. The root system is shallow and not resistant to drought. In dry conditions it goes dormant but will revive with watering. The optimum mowing height for Kentucky bluegrass is three inches.

Fescue is widely used in Northern Virginia and regions to the north. With regular mowing it makes a thick, uniform lawn, growing strongly in spring and fall, little or not at all in hot weather unless watered, and going dormant in winter when temperatures become cold. Although there are about 300 species of fescue, lawn choices generally resolve into two groups, referred to simply by most gardeners as “fine” and “tall.”

- **Fine fescue** includes small grasses that grow to four or five inches in height with very fine thread-like leaves. It is drought tolerant and generally proves a good choice for shady areas, i.e., that get less than five hour of sun daily. Until the turf is mature, it tends to grow in clumps and may flop over, so it is less tolerant of heavy wear than tall fescue. Its optimum mowing height is three inches.
- **Tall fescue** includes taller, coarser grasses with broader leaves. It is more tolerant of sun and drought conditions, and is generally the choice for play areas that get heavy wear. Most popular brand grass seed mixtures use a predominance of tall fescue. Its optimum mowing height is three inches.

Most grass seed mixtures sold in Northern Virginia are a blend of two or more cool season varieties. The percentages of each should be shown on the packaging.

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### Warm Season Grasses

Warm season grasses go dormant (brown out) after the first hard frost in the fall and stay that way until April-May.

Grass Type	Shade Tolerant	Disease Resistance	Wear Tolerance	Nitrogen Requirement	Heat Tolerance	Drought Tolerance	Recovery Potential
Bermuda	Fair	Fair	Good	Low	Fair	Excellent	Moderate
Zoysia	Good	Fair	Good	Low	Good	Excellent	High

*Home owners who want to reduce their water bills may want to look closely at warm season grasses.*

**Bermuda** is grown as lawn grass primarily in warm temperate regions, such as the Sunbelt where it is valued for its drought tolerance. Propagation is by rhizomes, stolons, or seeds. In some cases it is considered to be a weed; it spreads through lawns and flower beds, where it can be difficult to kill with herbicides without damaging other grasses or plants. It is difficult to pull out because the rhizomes and stolons break readily, and then re-grow. Optimum mowing height is an inch-and-a-half.

**Zoysia** can tolerate wide variations in temperature, sunlight, and water, and is widely used for lawns in temperate climates. It is used on golf courses to create fairways and teeing areas. It resists disease and holds up well under traffic. It is available commercially as sod in this area, although its high cost persuades most homeowners to propagate it with plugs. It is popular because of its fine texture and soft feel, and low growth habit. It can form dense mats and even mounds that grow over low features. It generally requires less fertilization and is less prone to insect and fungus damage, depending on environmental conditions. For best appearance, turf experts recommend reel blade mowers for zoysia set to an inch-and-a-half cutting height.

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### Alternative Ground Covers

Your choice of a ground cover need not be limited to turf grasses; many others are available, for example, pachysandra, periwinkle, English ivy, Hakone grass, ajuga, etc. (Just Google “ground covers” and you’ll get a long list.) If your requirement is merely to cover the ground, many of the plants listed will prove satisfactory. However, if your requirement includes having your family walk on it, the list becomes much shorter. If it’s a play area in question, there really is no satisfactory substitute for turf grass as a natural surface. But if the area is used for only light pedestrian traffic – say two or three times per day – then “steppables” may be your answer.

#### Steppables

Ground covers that will tolerate moderate foot traffic are referred to as “steppables.” Generally, the plants are widely available, will likely be somewhat more expensive than turf on a square-foot basis, require longer to establish, and may need more hand weeding. Most growers choose to use them in small areas. Two are planted here as examples of this genre.

- The blue star creeper has proven very satisfactory cover so far. We planted it in the fall of 2009, with individual plants spaced about eight inches apart. Practically all of the plants survived their first winter and are spreading vigorously at this writing. At their current rate, they will likely have covered 50-to-75% within their first two growing seasons. We have not lavished care on these plants. We spread a layer of compost over them last fall and weeded them by hand through the spring. We have not watered them since planting, and have not applied fertilizer or chemicals – either synthetic or organic.
- We planted the elfin thyme (not a culinary variety of thyme) in the fall of 2009 also. As with the blue star creeper, we spread a layer of compost over it last fall and weeded it by hand through the spring. We have not watered it since planting, nor applied fertilizer or chemicals – either synthetic or organic. It has grown less vigorously, and covered less area than the blue star creeper.

Variety	Shade Tolerant	Disease Resistance	Wear Tolerance	Nitrogen Requirement	Heat Tolerance	Drought Tolerance	Recovery Potential
Blue Star Creeper	Fair	Fair	Good	Low	Good	Good	Good
Elfin Thyme	Good	Fair	Good	Low	Good	Good	Good

### Grass-Like Substitutes

**Liriope** is a very hardy plant. Some varieties, like the *L. spicata* grown here, thrive even in difficult conditions. A member of the lily family, it spreads by runners; hence its nickname, "creeping lilyturf." In this area we commonly see it as a border plant in landscaping around shopping centers and commercial parking lots. The dark green, ribbonlike foliage grows in length from 10 to 18 inches and then falls over to form rounded clumps. As the clumps mature they merge into a continuous carpet that resembles a plot of shaggy lawn grass. In summer, spikes of small purple, violet or white flowers rise from the center of clumps. Flowers are followed by pea-sized black or white berries in autumn. Liriope spreads quite fast in reasonable soil. Here are our observations of its growth characteristics:

Variety	Shade Tolerant	Disease Resistance	Wear Tolerance	Nitrogen Requirement	Heat Tolerance	Drought Tolerance	Recovery Potential
Liriope, <i>L. spicata</i>	Fair	Fair	Good	Low	Excellent	Excellent	Excellent

This fall we plan to plant **mondo grass** (*ophiopogon japonicus*) in the plot that is now covered with plastic sheeting. It is similar in appearance and landscape use to liriope but has finer textured foliage and bears its flowers within the clumps rather than above them. Culture Becomes Mondo grass grows most rapidly in well worked, fertile soil, but is tolerant of much less than ideal conditions. It has the advantage of growing in different colors, making for a pleasant effect in one's landscape.

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### Native Grasses

In 2009, as an experiment, we planted two native grasses here: **buffalo grass** and **blue grama**, both native to the Great Plains. We thought that home owners might like these because they are highly draught tolerant and require little fertilizer. For various reasons, we concluded they probably are not useful as turf grasses in suburban Loudoun. If you have an interest in learning more about these grasses and our experience with them, contact the Loudoun County Master Gardeners at the phone or email address listed below.

#### Master Gardeners Are Here to Help!

Selecting a ground cover is an important step in establishing a new lawn, but it is only the first. After that you must plant and care for it through the years. Loudoun County Master Gardeners\* might be able to help. Call our Help Desk at 703 771-5150, or email us at [ex107mg@vt.edu](mailto:ex107mg@vt.edu).

Or you can try these helpful web sites.

<http://pubs.ext.vt.edu/2805/2805-1003/2805-1003.html> Turfgrass Recommendations

<http://pubs.ext.vt.edu/452/452-717/452-717.pdf> Fertilizing Cool Season Grasses

<http://pubs.ext.vt.edu/418/418-040/418-040.pdf> Virginia Sod Directory

<http://www.pubs.ext.vt.edu/426/426-718/426-718.html> Establishing Lawns