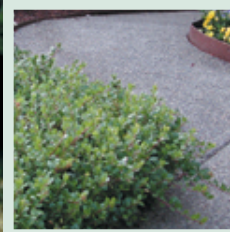


PLANTING A NEW LAWN

Where do you begin? Whether you are installing a new landscape or redoing an existing landscape, first analyze your needs. Do you need a large recreational area for your family? Do you want an area in the front of your yard to appear green and well manicured? Are areas you are considering for new turf easy to irrigate and maintain? Can plants such as low-water use groundcovers be used in areas such as narrow borders and parking strips? Could you increase planting beds and reduce lawn size? These are some questions to answer before making changes to turf areas to reduce the need for water and lawn maintenance and to meet your own needs for aesthetics, recreation, and resource use, including your own time.

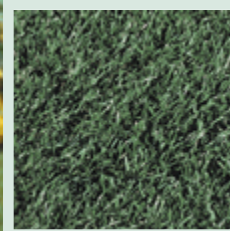


What Type of Grass to Plant

Selection of the type of grass to plant depends on your individual aesthetic and maintenance needs. Generally, you want to plant a cool season turf type in our area. Warm season grasses are more successful in hot, dry climates. The following information can help you make decisions about which turf type best meets your needs.

Perennial Ryegrass

This is the most commonly planted turfgrass in western Oregon, and is fairly drought tolerant. Turf experts often recommend perennial ryegrass as it is easy to establish, grows vigorously and can compete with weeds (which reduces the need for chemical control). It forms an attractive turf for most of the year. Perennial ryegrass is thatchless, allowing good water penetration over many years if the soil remains porous. This turf type is highly adaptable to a wide range of soils from light and sandy to heavy and clay like.



Perennial ryegrass is quite disease-resistant with proper maintenance. It does well in light to moderate shade, but not in deep shade or poor soil. Its color is moderately dark green with good density and fine leaf texture. It grows well in mixes with bluegrass and fine fescues for added cold and shade tolerance and a more hardy turf area that can be used for sport fields. It has a low growth habit, which is best mowed at 1 to 2-1/2 inches.

Tall Fescues

Turf growers in western Oregon have not had much luck with tall fescue. It is a relatively new turfgrass in this area and is quite drought tolerant—it can go days or longer without water if it is irrigated slowly and deeply when it is watered. The whole soil profile needs to be wet each time it is irrigated

in order for tall fescue to maintain its vigor. Tall fescue has the deepest root system of turfgrasses, with root system depths from 3 to 6 feet. It will stay greener longer in a drought. It doesn't necessarily use less water (under some circumstances it may use more); it just uses it as a deep-rooted plant would. Other grasses, however, tend to displace tall fescues very quickly, making it not as appealing a choice as perennial ryegrass.

Tall fescue doesn't stay quite as green in the winter as perennial ryegrass. It has a somewhat medium to dark green color and moderate density. It is also somewhat coarser in texture than perennial ryegrass. This grass type can adapt to a wide range of soil conditions since it has a rather deep extensive root system that makes excellent use of soil moisture and mineral nutrients. It also has a good tolerance to saline soil conditions. Optimum mowing height for this grass type is 2 to 3 inches. Tall fescue turf takes water readily because it produces little thatch.

Fine Fescues

Fine fescues are a deep green color, have the finest grass blade of any lawn grass, and have an upright growth habit that creates a pleasing uniformity. This grass type has rapid germination and seedling establishment. It tolerates acid soil well, growing within a soil acidity range of pH 5.0 to 6.5 and has the lowest fertilizer requirements of any cool-season grass. It is often used in mixes with other grasses because of its ability to blend and is often used in blue grass mixtures because it grows well in shade or drought-dry soil.

Fine fescues have a high drought tolerance for a cool season grass and can go dormant in summer if irrigation is withheld. Once moisture is supplied again it will green up quickly.

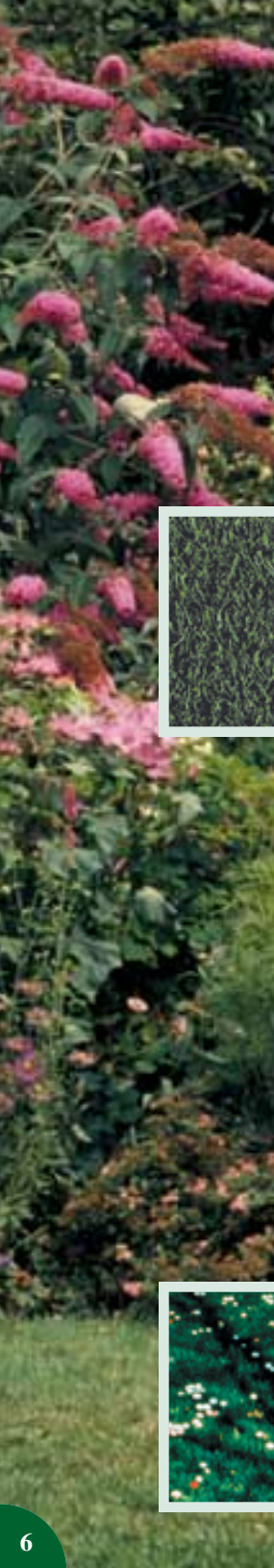
Fescues are best used in partially shaded areas under low maintenance. This grass type does best with a mowing height of 1 to 2-1/2 inches. Clippings from frequent mowings can be left on the lawn as fine fescue does not develop thatch. Fine fescue can also be left unmowed for the "meadow look."

Bentgrass

This is the most dominant grass in landscapes in this area, but not by choice. Bentgrass is usually an "invader grass." It will take over even the best-maintained lawns planted with other seed types after a few years. It can be easily identified in early morning when dew hangs on the grass. It forms very dense, fine-textured patches which hold the dew longer than other grasses. If you want to get rid of it, quick removal by chemical means or hand weeding is recommended before patches enlarge.

Bentgrass performs better at mowing heights below 1-1/2 inches. It looks its best when it is mowed at least once a week. To stay green it will need to be mowed two times a week. At these very low mowing heights, it requires water more often.





Bentgrass produces thatch and will need to be dethatched every one to two years. It dominates other lawn grasses because it grows well in the cool times of the year, tolerates drought by going dormant, requires very little fertilizer, and gets few diseases if it is not over-fertilized.

Creeping Bentgrass is a specialty turfgrass that requires high maintenance and expert turf management. It is usually recommended only for golf courses due to its ability to withstand an extremely low cut as well as its ability to recover quickly from high traffic and other injuries (e.g., divots).

Kentucky Bluegrass

This grass does not do as well as the other grass types in this area. It is poorly adapted to wet and mild winters. It prefers cool, humid, semi-arid and temperate regions. It is a cool season grass with a deep, rich dark green color.

It has dense and beautiful appearance with a medium leaf texture that has excellent leaf uniformity. It is moderately drought tolerant and does not do well in partial or full shade.

Optimum mowing height is 1-1/2 to 2 inches. It can develop some thatch at higher nitrogen levels. It performs best in fertile, non-acid reacting soil with good drainage.

Common Mixtures

Typical seed mixtures include approximately 70% perennial ryegrass and 30% fine fescue. Hard fescue, a fine fescue (very narrow blades of grass), is the grass of choice in this mix due to its drought tolerance, good color, and resistance to red thread disease. Red thread disease is a fungal disease that looks like mats of red threads on the tips of leaves. This disease commonly occurs in turf that is in poor soil or a slow-growth period (such as drought times). It is primarily a cosmetic problem.

Ecolawns

An “ecolawn” is an alternative to conventional grass lawns. Ecolawns combine grasses with selected broadleaf plants to produce an ecologically stable mixture of plants that require less maintenance than a typical lawn. For example, perennial ryegrass mixed with strawberry clover (*Trifolium*), yarrow (*Achillea millifolium*), English lawn daisy (*Bellis perennis*), baby blue eyes (*Nemophila menjiesii*), and roman chamomile (*Chamaemelum nobile*) creates a green, white, pink, and blue carpet of plant material. This mix requires very infrequent mowing to maintain desired height (maybe once every three weeks), and little to no fertilizer and no pesticides. Often these mixes take at least two seasons to become established. Check with your local nursery or turf specialist for a mix you would enjoy.

When to Plant

The best time to plant a new lawn is in the spring or fall to take advantage of rainfall and avoid the heat stress of summer. You can either plant seed or install sod. Seeding may not be as effective after mid-October, but sod can be laid as late as November if the weather isn't too severe. If you have old sod, strip it or work it into the soil completely before adding new seed or sod.

Preparing the Soil


Before putting in new grass or sod it is very important to properly prepare your soil. For maximum growth and aesthetics, grass needs four essential factors: sunlight, air, water, and nutrients. Three of these four essential factors (air, water, and nutrients) are obtained from soil, but many soils lack the ability to provide these factors. Some have too much clay and may be very compacted, so cannot make the air and water available to the roots. Other soils are too sandy, making it difficult for water and nutrients to stay in the soil. Another problem is that the pH (the degree of acidity or alkalinity) is too high or too low. The best soil conditions for turf are loams, sandy loams and clay loams with a pH of 6.0 to 7.0. Almost all soils can be improved, but you need to know what you have before you can make the improvements. Take the time before you plant to improve your soil. This will save time and money in lawn maintenance later.

Take soil core samples from several locations in your yard and have them analyzed. Sampling information and materials are available at the County Extension Office. You can also have your soil tested by a commercial soil-testing laboratory. Check with your local nursery or the Extension Office for locations. Once you know your soil needs, add amendments to make it a healthy environment for your turfgrass.

The key to healthy grass is a deep root system. A healthy root is usually 8 to 24 inches deep. Add 6 to 12 inches of good topsoil to promote healthy root growth. The topsoil should be clay loam or sandy loam or other soil suitable to the area. Healthy plant roots can reach through several inches of topsoil for moisture, and can often go a week or more without water. In contrast, shallow root systems need more frequent watering as their root systems cannot reach moisture deep in the soil. Before you add the top soil, however, till to a depth of at least 2 inches. This will control most annual weeds, alleviate subsoil compaction, permit bonding of the top soil to the subsoil, and improve root penetration and water movement.


Grading the soil to a 1% to 2% slope provides good surface





drainage away from your house and other buildings. Smooth, roll and lightly rake the surface. If time permits, allow the area to settle further with rainfall or by applying irrigation water. This will ensure a truly firm, level surface. Water the soil area thoroughly, up to 6 inches for best results. Then seed following the rates recommended on the turf seed package. Divide the grass seed in half and spread over the area twice in perpendicular directions to get consistent coverage. Rake the seed into the soil and roll again to firm and level the seedbed. If installing sod, roll it out after the soil is prepared as described above.

Fertilizing



Fertilize new lawns with a 3-1-2 ratio of nitrogen (N), phosphorous (P) and potassium (K). Nitrogen is the most important element for successful turf growth. Use 1 lb. of nitrogen per 1,000 sq. ft. at the time of seeding, about 3-4 weeks after seeding, and again about 6 weeks later. To determine the amount of fertilizer needed for turfgrass areas, divide 100 by the nitrogen percent. If you have a 10-3-6 mixture, 100 divided by 10 is 10. Therefore, use 10 lbs. of this mixture for 1,000 sq. ft. of turfgrass area to achieve a rate of 1 lb. N/1,000 sq. ft. Each grass type, however, has its own requirements for fertilizing. Check with your local turfgrass specialist or consult the web sites provided in the back of this brochure for more specific information.


How Much Fertilizer To Use

$100 \div \% \text{ of nitrogen} =$
of lbs. of fertilizer per 1,000 sq. ft. of lawn

Example for a 10-3-6 fertilizer mixture:

$100 \div 10 (\% \text{ of nitrogen}) = 10 \text{ lbs. of fertilizer}$

Watering



New plantings need to be watered lightly and more frequently than established turfgrass areas if the weather is dry following seeding. If laying sod, follow within a half hour with at least 1 inch of water. You may need to do this in short time increments to avoid run off. New sod and seed needs to stay moist for the first few weeks to allow for successful establishment. For best results, follow the directions of your lawn care specialist until your new lawn is well established.