United States Department of Agriculture

Natural Resources Conservation Service
Alexandria, Louisiana
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Fact Sheet 7 Range and Pasture

Introduced Cool-Season Grasses of Louisiana

Fact Sheet — Annual Ryegrass

Description

Annual ryegrass (*Lolium perenne* ssp. *multiflorum*) is an introduced cool-season bunch grass from Europe. Vegetative stems grow erect at first but may grow more horizontally as the plant produces a seed head. Natural reseeding is common. The leaves are dark and shiny with smooth edges. Plants reach a height of 2-3 feet. The root system is highly branched, with many adventitious roots. This allows the species to tolerate poorly drained soils better than other cool season species such as oats.

Adaptability

Annual ryegrass is adapted throughout Louisiana. This plant also tends to form denser sods than small grain species, which is a benefit for controlling erosion. It is adapted to a wide range of soils and pH levels (5.5 - 8.0). However, optimum growth occurs at a pH 5.7 or above because of poor nutrient availability and aluminum toxicity at lower pH levels. Production is maximized on fertile, medium to well-drained soils. Recommended varieties include: Gulf, Jackson, Marshall, Rustmaster, TAM 90, Abundant, Big Daddy, Passerel Plus, Bounty, Ribeye, Hercules, Jumbo, Rio, and Stampede. Jackson has generally shown the most resistance to rust infection, while Marshall, Gulf, and Hercules have been most severely infected by rust. Gulf has exhibited poor cold tolerance with inconsistent yield performance. Several varieties produce similar yields but according to university forage tests in Louisiana, Jackson, Abundant, and Big Daddy are consistently high producing species.

Uses

Annual ryegrass is used predominantly for late-winter / early-spring grazing and is the most widely used cool-season species in Louisiana. It is easy to establish; produces high yielding, high quality forage; and is adapted to a wide range of soils. Annual ryegrass is also used for hay, green manure, supplemental food for deer and rabbits, and erosion control where a quick cover is needed. Annual ryegrass is also overseeded in lawns for winter color and cover.

Establishment

Ryegrass can be overseeded into a perennial pasture or seeded into a well-prepared seedbed. Plant annual ryegrass between October 1 and November 15 at a 0-1/2 inch depth. When broadcast seeding plant at a 20-30 lb/acre rate. This seeding rate may be reduced by 50% when drill-seeding or when seeding a cover crop. Apply nutrients according to soil test analysis or to forage production objectives. Apply phosphorus and potassium at or shortly before planting. As a rule of thumb, apply a pound of nitrogen for each day of grazing that is desired.

Overseeding - A no-till drill or broadcast seeder followed by harrowing or lightly disking to cover the seed can be used to overseed ryegrass. The most critical aspect of overseeding is getting good seed to soil contact. Clipping or grazing the existing forage stand close to the ground will help facilitate good seed to soil contact. The forage stand achieved from overseeding won't produce as well as that resulting from a prepared seedbed; however, the cost is lower and the potential for erosion is reduced. Annual ryegrass can be mixed with bulk fertilizer and seeded. On an overseeded pasture, the first application of 80-100 pounds of nitrogen per acre should be delayed until a stand is obtained, then a second nitrogen application of 60-80 pounds may be made in late January or February.

Prepared seedbed - When using a well-prepared seedbed, the area should be free from most plant matter and level enough to allow planting equipment to function properly. Additionally, the seedbed should be firm to allow for proper placement of the seed. A well-prepared seedbed will provide grazing earlier than overseeding into existing sod. General recommendations for fertilizing on a prepared seedbed, are to apply 80-100 pounds of nitrogen at or shortly before planting and another 60-80 pounds of nitrogen in late December or January. If additional grazing is needed, or if grass is to be cut for hay or silage, apply an additional 40-80 pounds of nitrogen and potassium per acre in late February or early March. An additional nitrogen application may be beneficial if growing conditions favor late spring growth.

Management

Annual ryegrass will usually begin growth in mid November or early December depending on the seedbed preparation method. During the coldest months, December and January, there is usually little growth. By mid-February production begins to increase, peaking in late March or April. If allowed to develop a seed head, forage quality of annual ryegrass will decrease rapidly. When seeded over a warm season pasture species, it is beneficial to harvest the annual ryegrass from the pasture in April to allow the warm season species to begin growth.

Grazing should not begin until the plants have reached at least eight inches in height. Grazing prior to this may result in the cattle pulling up and destroying the seedlings before they have established an adequate root system. Don't allow plants to be grazed below four inches when using a continuously grazed pasture. In a rotational grazing system don't graze the plants below three inches. Under favorable growing conditions, the average recovery period in a rotational grazing system is 14-21 days.

Cut ryegrass in the boot stage to maximize hay quality. Cutting height should not be lower than two inches. Annual ryegrass makes high quality hay when cured properly, but due to its high moisture content curing can be problematic. Using a hay conditioner will cut down on curing time and will help alleviate the high moisture problem.

When using annual ryegrass for erosion control, grazing animals should be excluded until the plants are well established.

NRCS
Natural Resources Conservation Service

Introduced Cool-Season Grass

Series

Annual Ryegrass

Tall Fescue

Wheat

Oats

Rye

Where To Get Help

For more information about annual ryegrass, contact your local Natural Resources Conservation Service office or visit the Plant Materials website at: **http://plant-materials.nrcs.usda.gov**