

Annual Ryegrass

Lloyd R. Nelson
Small Grains & Ryegrass Breeder
Texas Agricultural Experiment Station

The Agriculture Program
The Texas A&M University System



Annual Ryegrass (*Lolium multiflorum* Lam.)

Other common names: Italian ryegrass, Gulf Coast ryegrass, rye

Ryegrass should not be confused with rye, which is *Secale cereal* L., a large seed small grain often used for seeding pastures in Texas.

Uses: Used primarily as a forage crop in Texas and a seed crop in Oregon. Ryegrass can be used as a cover crop to hold soil on construction sites.

Seeding Rate: Twenty to 25 lb/ac of seed may be sown or drilled into a conventionally tilled seedbed in late September or October at about 1/4 inch depth. Germination and emergence can be expected from 5 to 7 days. Seed may be broadcast (25 to 30 lb/ac) over a warm season sod usually in October or November when warm season grass is dormant or near dormant. Germination can be expected after 2 to 3 days of rainy weather. In emergency situations, or where stands have been lost, ryegrass can be seeded or reseeded as late as December or January; however, a minimum of 6 weeks will normally be required before forage is available for grazing.

Forage Production: On ryegrass drilled into a conventional seedbed on October 1, forage should be available for grazing in 6 to 8 weeks or when the grass is 6 inches tall which should occur by mid-November or December 1. On ryegrass overseeded onto a sod, early forage production is usually not available unless warm conditions exist in December or January. February production is more likely on sod-seeded ryegrass. Extremely high forage production can be expected from ryegrass from late February to late May under east Texas growing conditions, if adequate fertility is present.

Forage Quality: Quality of vegetative annual ryegrass is very good. Expect high digestibility and high protein (over 20%) until late April or early May, when quality is greatly reduced. Close grazing and rotational grazing will help maintain high quality, improve forage yield, and increase intake of grazing animals. Additional cattle, or increased grazing pressure often is required in March and April to utilize rapid forage production. After May 1, quality may be reduced when jointing of plants results in the forage becoming stemmy.

Fertilization: Soil should be tested by soil analysis. Soil should be limed if acidity levels fall below 5.5; however, highest production will occur on soils with pH levels about 6.0. P and K should be applied according to soil analysis. Ryegrass will respond to high levels of N, if day time temperatures are above 50 F. Normal N fertilization would be 50 lb N/ac at planting and about 25 lb N/ac each month during the winter growing season through April.

Freeze Danger: In northeast Texas, winter freeze injury has been a problem on annual ryegrass. Common and the variety Gulf are susceptible to freeze injury. Winter hardy varieties such as TAM 90, Marshall, Jackson, Surrey and others are recommended to avoid loss of the crop from extremely cold weather.

Crown Rust: In the region south of I-20, crown rust is often a serious disease on ryegrass. Susceptible varieties such as Marshall, Avance, Grazer, Hercules, and Bounty are not recommended.

Varieties for Texas: There are many varieties of ryegrass available to cattlemen. Each year new varieties are marketed without research data available to indicate their adaptability. One year's data are not sufficient to make good recommendations. A minimum of 3 years is best to overcome environmental conditions which may occur in a single year. The next page provides a list of varieties which may be available and some of their important traits. Ploidy level relates to the number of chromosomes in a variety. A diploid has 14 chromosomes, while a tetraploid has 28 chromosomes. There is no specific advantage to a variety being a diploid or tetraploid. Select the best variety which is suited to your area.

Annual ryegrass variety comparisons for yield and other important traits in Texas and regions where varieties have performed best.

Variety	Yield Potential			Winter Hardiness	Crown Rust Resistance	Ploidy Level	Adapted Region in Texas
	Fall	Spring	Total Season				
Abundant	good	good	v. good	?	MR	diploid	NT,CT,ST*
Alamo	good	average	good	?	R	diploid	CT,ST
Avance	average	good	average	?	MS	diploid	NT,CT
Beefbuilder	good	good	average	?	R	diploid	NT,CT,ST
Big Daddy	good	good	v. good	?	R	tetraploid	NT,CT,ST
Bounty	average	good	average	?	MS	diploid	NT,CT,ST
Brigadier	good	good	average	average	R	diploid	NT,CT
Ed	average	good	v. good	?	R	diploid	CT,ST
Gulf	good	average	average	?	R	diploid	CT,ST
Grazer	good	average	average	?	MS	diploid	NT,CT
Graz-N-Gro	average	good	good	?	R	diploid	CT
Jackson	good	average	average	?	R	diploid	NT,CT,ST
Jumbo	average	good	v. good	good	R	tetraploid	NT,CT,ST
Marshall	good	v. good	v. good	v. good	S	diploid	NT,CT
Passerel Plus	average	good	average	?	MR	diploid	NT,CT,ST
Prine	average	good	v. good	?	R	tetraploid	CT,ST
Ribeye	good	v. good	good	?	MR	diploid	NT,CT
Rio	good	average	average	?	MR	diploid	NT,CT,ST
Southern Star	good	good	good	average	MR	diploid	NT,CT,ST
Stampede	average	v. good	v. good	?	MR	diploid	NT,CT,ST
Surrey II	average	good	v. good	?	R	diploid	CT,ST
TAM 90	v. good	v. good	v. good	v. good	R	diploid	NT,CT
Tetragold	average	good	good	average	R	tetraploid	NT,CT,ST
WD-40	average	good	good	average	MR	diploid	NT,CT,ST

*NT,CT,ST indicate North Texas, Central Texas, and South Texas, respectively.

Information provided by Dr. L. R. Nelson, Ryegrass Breeder, TAES-Overton