



WHERE TO PLANT



-  May be adapted to some sites with suitable soils and/or irrigation
-  Lacefield MaxQ II®

PENNINGTON®

LACEFIELD MAXQII®

FORAGE TYPE TALL FESCUE

Endophytes (fungi) are important to tall fescue plants. The fungus enables the plant to be more tolerant of heat and drought stress and enhances tolerance to some insects and diseases. Other benefits of the endophyte to the plant include enhanced seedling vigor, greater tolerance to grazing, more efficient use of nitrogen, higher phosphorus uptake and improved competitiveness. However, the fungus in most fescue varieties produces toxins that are harmful to livestock. These detrimental effects are commonly referred to as fescue toxicity or fescue toxicosis. Symptoms of toxicosis in cattle include long hair coat, intolerance to heat and cold, poor growth performance and reduced pregnancy rate. On horse farms, pregnant mares grazing toxic fescue pastures have serious reproduction problems that include prolonged gestation, dystocia, agalactia and abortions. Losses to livestock producers from fescue toxicosis is estimated to be \$1 billion annually.

Jesup MaxQ®, Jesup MaxQ II®, Lacefield MaxQ II® and Texoma MaxQ II® feature advanced technology that combines a non-toxic endophyte (MaxQ® or MaxQ II®) with a proven variety of tall fescue. These endophytes provide all the benefits to the plant

without producing any harmful animal toxins. All three varieties offer the plant persistence of toxic fescue varieties like KY 31 but with no detrimental effects on animal performance and health. University research and on-farm experience have shown cattle grazing Jesup, Lacefield and Texoma to have significantly greater gains, higher conception rates, and better overall health than those grazing toxic fescue varieties. Each variety is university proven to be safe for all classes of grazing animals including pregnant mares. They are widely adapted throughout the traditional fescue belt of the U.S. (See adaptation map.)



PRODUCT DESCRIPTION

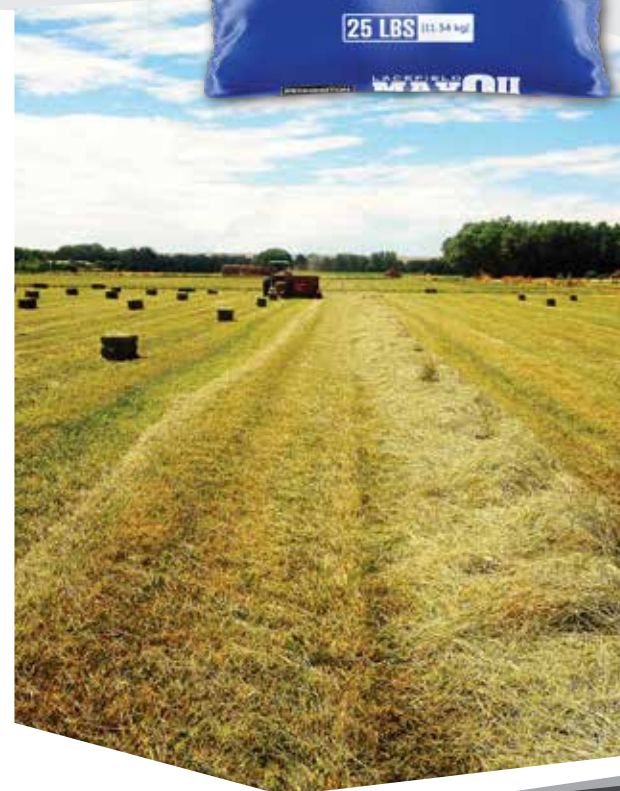
Lacefield MaxQII® is the first novel endophyte tall fescue to be released by the University of Kentucky. Named after prominent UK forage researcher Dr. Garry Lacefield, Lacefield MaxQII® utilizes the best novel endophyte technology offered by AgResearch USA. The AR584 non-toxic endophyte licensed by Pennington Seed and named MaxQII® provides excellent agronomic benefits to Lacefield MaxQII® without producing any toxic compounds that are harmful to livestock. Lacefield MaxQII® was bred for high performance boasting excellent seedling vigor, high forage yields, improved persistence under grazing, and high weight gains in stocker cattle. Lacefield MaxQII® is also a later maturing variety that produces more forage and supports higher stocking rates in late spring and early summer than the original Jesup MaxQ® in Kentucky. Lacefield MaxQII® is an excellent choice for livestock producers planting a novel endophyte tall fescue in Kentucky and surrounding states.

USES

- As a cool season perennial pasture to provide high quality, abundant forage throughout the fall months into spring and early summer for all classes of grazing livestock including cattle, sheep and horses. (Lacefield MaxQII® is university tested safe for pregnant mares.) Highest productivity is during September-December and March-June.
- For high quality hay/baleage production.
- Excellent for fall stockpiling and managed grazing during the winter months.

BENEFITS

- Produces no toxins - proven safe for all classes of grazing animals including pregnant mares
- Provides abundant forage throughout the fall months into spring and early summer for all classes of grazing livestock including cattle, sheep and horses.
- High quality, palatable forage - crude protein levels of 15-16% or more and total digestible nutrient content of 60% or higher with proper soil fertility and good management.
- Persists like toxic tall fescue varieties
- Provides significantly higher animal gains and conception rates compared to toxic fescue
- Promotes better overall health – no fescue foot; no long hair coats; no sale barn discounts



PLANTING

For best results and maximum benefit, all toxic tall fescue and troublesome annual grasses including cheatgrass, rescue grass and unwanted ryegrass should be killed prior to the blooming stage before establishing Lacefield MaxQII. (Consult the MaxQ® Planting Guides (Spring or Fall Planting) under the Agriculture Resources tab on the Pennington forage website for details.) A firm seedbed is important for good stand establishment. Seed can be drilled into a prepared, firm seedbed, no-tilled into killed sod with a no-till drill or surface broadcasted onto a prepared seed bed and packed in with a culti-packer.

Note: Pennington forage experts recommend that Lacefield MaxQII be established alone. A perennial white clover such as Durana or Patriot can be sod/frost seeded the year following fescue establishment.

RATE: 15- 20 lbs/acre in a prepared seedbed or 20-25 lbs/acre sod-seeded in stubble.

DEPTH: 1/4" to 1/2". Planting too deep can result in poor stand emergence.

DATE: Southern and Southeastern states: Sept.15 to Nov.1

South Central U.S.: Oct. 1 to Nov. 15

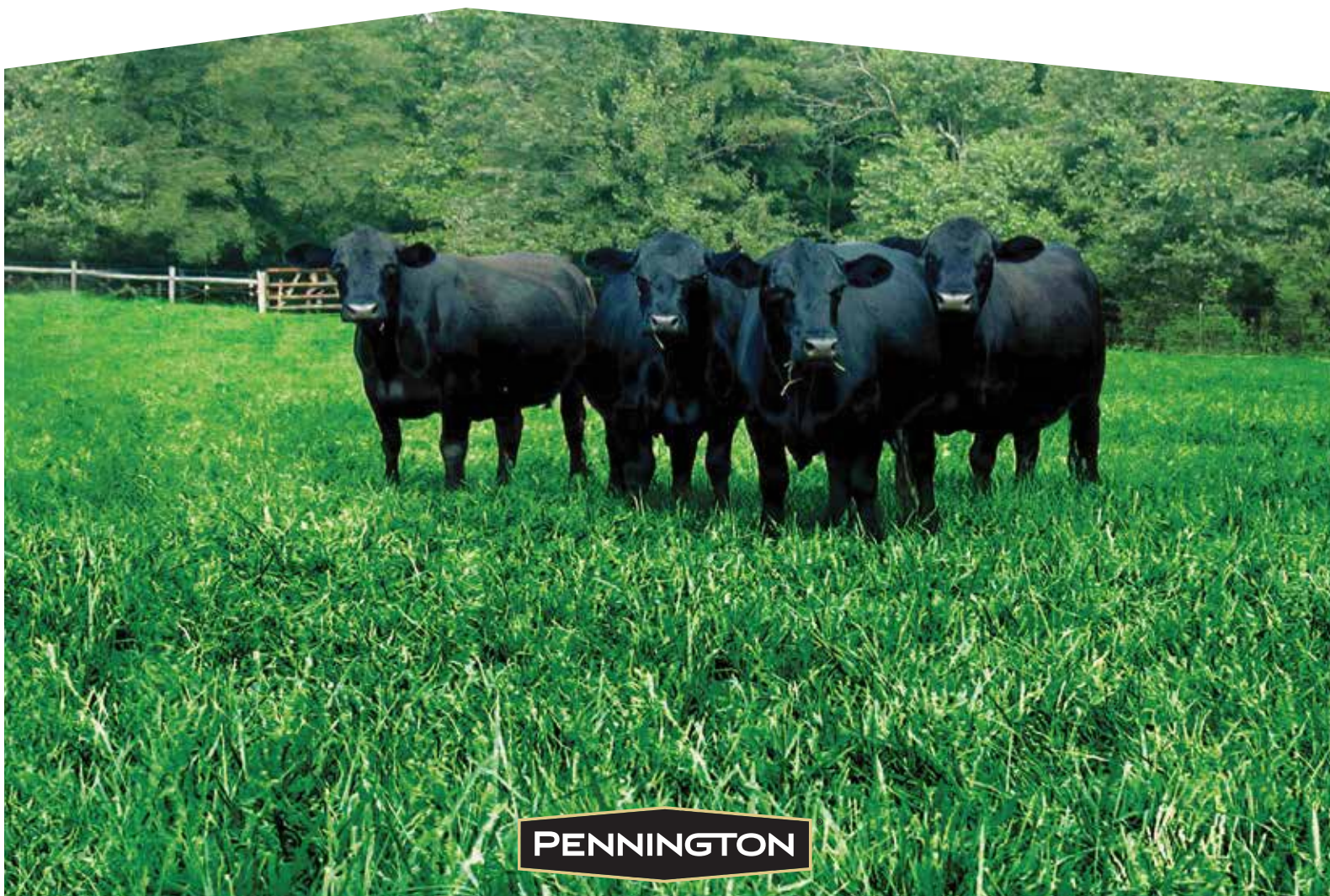
Mid-South, Midwest and Northeastern states: Aug. 15 to Oct. 1 or spring planted in March and April.

FERTILIZATION: Lime to a pH of 6.0 - 6.5. Apply phosphorus and potassium according to soil tests. Use 25 - 35 lbs./A starter nitrogen.

MANAGEMENT: Do not graze or cut seedling stand until it reaches 6"-8" tall. During the year after establishment, rest fescue pastures during the summer months. If weather conditions are favorable for growth, forage may be used for light rotational grazing for short periods or harvested for hay. Leave 3 - 4" of forage growth after grazing or haying. To prevent hoof pugging damage, do not graze when soil is excessively wet and soft.

MANAGEMENT FOR ESTABLISHED STANDS

For maximum productivity and stand life in grazed pastures, use a rotational grazing system whereby a minimum of 3" - 4" of forage growth remains after the grazing period. For grazing, apply up to 150 lbs./acre of nitrogen fertilizer annually in split applications just prior to periods of rapid growth - early fall and late winter (Consult the local University Extension Office for N recommendations specific for the area). Add lime as needed to maintain a soil pH of 6.0 - 6.5 and apply phosphorus and potassium fertilizer annually as recommended by soil test. Keep forage fresh and leafy by grazing or periodic clipping. If harvested for hay, leave 3"- 4" of stubble height. Rotate cattle between pastures more often during periods of heat and drought stress. Once well established (2 years or more), forage may be stockpiled during periods of rapid growth in early fall and utilized for winter grazing. To prevent contamination, do not feed toxic fescue hay in MaxQ pastures.



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