SMITH SEED SERVICES

Technical Report

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LIGHTNING berseem clover

An explosively fast-growing forage and cover crop legume full of abundant nutrients.

VARIETY SUMMARY

Lightning berseem was bred for fast, early spring production and rapid regrowth. Lightning provides protein-rich forage, abundant nitrogen-fixing cover crop, and insect-beneficial pollinator habitat.

MULTI-PURPOSE

Lightning can be safely grazed by all livestock, mechanically harvested for hay or silage, or chemically terminated for soil regeneration and nitrogen recycling. Additionally, Lightning's tasty foliage and attractive flowers makes it an ideal component in wildlife and pollinator mixes.

- **FORAGE QUALITY**
  Lightning has low-bloat, alfalfa-like forage quality comparable to other high-quality annual legumes. It is ideal for adding to thinning alfalfa stands or for increasing quality in multi-species forages systems. Both stem and leave are very digestible and it is rich in protein.

- **NITROGEN PRODUCTION**
  Lightning has the ability to produce abundant biomass and return profitable amounts of nitrogen. Trial work conducted in Tennessee and Mississippi indicates Lightning to be capable of producing over 2 tons of DM/ac and releasing 150 units of N/ac as far out as 12 weeks after termination.

RAPID REGROWTH

Lightning is capable of rapid regrowth for multiple harvests and grazing events, reaching a height of approximately 23" at peak of growth. Up to three cuttings may be harvested, providing at least 2 tons of harvestable DM/ac.

BROAD ADAPTATION

With breeding roots as far south as Texas and extensive testing in the Northern US, Lightning berseem has shown wide adaptation, favoring heavier soil and non-acid soil. Depending on location, it can be planted in the fall for spring production, or in late spring for summer harvest. Lightning has been tested and performed very well in PA, MI, OH, IN, TN, LA, and MS.

WINTER HARDINESS/COLD TOLERANCE

While berseem is generally expected to winterkill in northern climates, Lightning has shown consistent winter survivability in Pennsylvania and Ohio. This data is limited and caution is still advised for fall plantings where open freezing could occur.

SEE BACK FOR PLANTING INFORMATION

LIGHTNING PLANTING INFORMATION

Before you plant - Lightning berseem prefers full sun over shade, moderate to heavy soil, and performs best on ground which retains moisture. While able to grow in acidic soils, Lightning is best adapted to soils between 6.5-7.5 pH. Avoid planting under dry conditions or into drought-prone soil. Lightning can be planted separately or with other species.

In established pastures, remove excess forage through grazing or late season haying. This will help ensure successful seedling emergence and establishment. Reduce weed population prior to planting. Be aware of herbicide carryover/residual of chemicals applications prior to planting.

When planted as a single cultivar, a heavier seeding rate is recommended to suppress weeds.

Fertilization requirements - For optimal performance, conduct a soil test prior to planting and follow lime and fertilizer recommendations. No N required.

When to plant - In warmer climates fall is the ideal time to plant. While Lightning has shown good cold tolerance and resistance to winter damage, regions subject to cold, open winters may find spring and early summer to provide the most consistent results. Transition zone and areas prone to snow cover should be safe against winter damage

Planting Depth/Method - Lightning can be sown by broadcasting or drilling. When drilling, plant at ¼" or less. Plant into a prepared/firm seedbed by broadcast or drill. Don't plant too deep! Planting too deep may lead to poor establishment or stand failure. Cultipacking or dragging before and after seeding.

Seeding rate
Planting as a pure stand on prepared seedbed: 15-25 lbs/ac broadcast, 7-15 lbs/ac drilled
Planting as mixture with grasses on prepared seedbed: 10-15 lbs/ac broadcast, 5-8 lbs/ac drilled

Inoculation - For optimal performance, Lightning berseem clover should be inoculated with Rhizobium leguminosarum biovar trifolii. This is best achieved with Nitro-Coat®.

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Learn more at LightningBerseem.com