

# Chicory Establishment Guidelines

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## ***Seeding Location***

Chicory prefers well to moderately drained soil of medium to high fertility. Flooding, particularly during the summer months, can injure chicory stands so low-lying ground should be avoided.

## ***Seeding Into A Tilled Seedbed***

Chicory establishes best on a moist firm seedbed. The seedbed should be cultipacked before and after broadcast seeding to ensure good seed-to-soil contact and correct planting depth. If using a drill, set the planting depth to no more than ¼ inch.

## ***No-till Seeding into Pasture***

Clear the area of all standing forage by close grazing, haymaking, or clipping close with a bush-hog. Then spray glyphosate (41% a.i. at 2.5 pts/acre plus surfactant), to kill the existing stand of forage. After applying the glyphosate, wait seven days before planting to ensure no herbicide residue remains.

## ***Seeding Rate***

Seeding five to six pounds of pure live seed per acre is recommended.

## ***Fertility***

Lime, Phosphorus and Potassium should be applied according to soil test recommendations with alfalfa as the specified crop. Soil pH should be at least 5.5. Nitrogen fertilizer should be applied at planting at a rate of 35 pounds per acre to stimulate chicory establishment. Subsequent nitrogen applications (30-50 lbs/acre) can be made after each grazing in the spring and fall up to 200 lbs/acre/year.

## ***Grazing Management***

Do not allow newly established chicory stands to be grazed until the chicory is at least 8 inches tall. This will generally occur 60 to 80 days after seeding, depending on climatic conditions. Chicory can be grazed to a stubble height of three inches. Chicory should be allowed to accumulate growth of four to six inches before going dormant in the fall. Chicory will become dormant after the first frost of the year. Grazing may resume in the spring when the plant is at least ten inches tall.

Chicory should **not** be continuously grazed. Research trials have shown that continuous grazing will greatly decrease stand persistence of chicory. Chicory production and animal performance is optimized under rotational stocking (rotational grazing) management. Depending on time of year and climatic conditions (and thus the rate of re-growth), a rest period of 14 to 25 days between grazing periods is best for chicory

persistence and performance. A stubble height of three inches should remain after grazing. Caution should be taken so that overgrazing does not occur in August. In Mississippi, chicory growth slows in August during periods of high temperatures.

### ***Keep Stems From Bolting***

After the seeding year, chicory grows vigorously and will attempt to produce stems in the late spring. Stubble heights greater than three inches, or rest periods longer than 25 days can allow stems to bolt (rapid stem growth). Rapid stem growth is less of a problem during the fall grazing period.

Once bolting has occurred, the production potential of the plants is reduced for the remainder of the grazing season or until the stems are removed. Management practices that do not allow the chicory flower stems to exceed a 6- to 10-inch height in late May to early June and grazing or clipping to a 3-inch stubble height will reduce the amount of stem bolting.

### ***Manage for Quality, Yield, and Animal Performance***

Established forage chicory stands have quality potentials and yields comparable to, or better than, most other forage crops. Protein levels and at Mississippi State University range from 17 to 33 percent. Also, the digestibility of chicory can be as high or higher than those of alfalfa.

The digestibility of chicory at Mississippi State University has generally been between 70 and 95 percent. Research has shown that chicory flower stems are less digestible than the chicory leaves. This is an additional reason to manage chicory pastures so that plants do not bolt. Forage yields of six tons per acre have been obtained from pure chicory stands in Mississippi State University small plot trials.

Animal performance on Oasis chicory has been exceptional in Mississippi. In Mississippi State University trials at the Holly Springs Research Station, Oasis chicory pastures have produced steer gains of 457 pounds per acre, during the spring grazing period. Additionally, the same steers grew at an average daily gain of 2.61 pounds per day. Other researchers have reported that chicory contains relatively high levels of minerals (potassium, calcium, magnesium, sulfur, zinc, and sodium) that are essential for proper animal nutrition.

### ***Weed Control***

Grassy weeds or grasses can be controlled with Poast (Sethoxydim) at a rate of 1.5 to 2 pints per acre in 20 gallons of water plus surfactant, not to exceed 6.5 pints per acre per year. Grazing should be delayed for seven days after applying Poast to pasture.

*NOTE: The information in this document was obtained from a number of sources.*