

# Berseem Clover

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## Description

Berseem clover (*Trifolium alexandrinum*) is an erect-growing, non-reseeding, cool-season annual, true clover. It produces one to four tons of high quality forage with good growing conditions, mostly from January through March, but with some production in December.

The plants grow to a height of 18 to 24 inches, with white flowers borne at the ends of the stems. Berseem usually has excellent seedling vigor and it makes rapid regrowth after grazing. New growth following grazing comes as shoots from or near the base of the plant.

The clover was introduced to California from Egypt about 1910 and was first planted in Texas in 1916 at the Angleton Experiment Station.

## Adaptation

Berseem appears adapted best to the Gulf Coast Prairie and the Rio Grande Plain and Valley. It has been grown successfully in the extreme southern parts of East Texas and the Blackland Prairie. The clover had survived winter temperatures of 16 degrees until 1954, when, with the shortage of soil moisture, some stands were severely damaged by 24-degree temperature. Good production has been obtained on soils ranging from sandy loams to clays. Berseem is more tolerant of wet soils than is sweetclover. It is not a hay plant because of its high moisture content,

its use being limited to grazing and seed production. This clover with a small grain makes an excellent combination for winter pasture.

## Establishment

Berseem should be planted in October and November on a well-prepared seedbed that is clean and firm. Growth likely will not be satisfactory when the clover is seeded on an unprepared seedbed or in a sod. A satisfactory seeding rate is 10 to 12 pounds per acre drilled in, or about four pounds when planted in 38 to 42-inch rows. Equipment designed to handle small seed is necessary for good seed distribution. The seed should be covered no deeper than 1/2 inch, and the soil should be firmed after seeding by rolling. The seed should be inoculated with a true clover culture. Berseem needs adequate plant food for good growth and should not be expected to do well on soils low in nutrients. Fertilizer needs should be determined by a soil test and the fertilizer applied before or at planting time.

## Management

Proper grazing stimulates new growth and increases forage yields from berseem. As the older stems grow, new shoots are produced that grow slowly until the old stems are grazed off or cut. A rather intensive system of rotation grazing will be necessary to

get good utilization of the forage produced because of its ability for rapid regrowth with good conditions. The number of new stems produced and the rate of regrowth decrease toward the end of the growing season.

Seed production appears to vary with areas. The Angleton Substation harvested over 500 pounds of seed per acre in 1952 from a stand that had not been clipped since planting. Plots clipped in March and April of that year produced 425 pounds of seed per acre, while plots clipped in March, April and May yielded only 179 pounds of seed per acre. That Station harvested two small fields of berseem for seed in June 1952, taking the seed directly from the standing plants with a combine. The maximum seed yield harvested at the Winter Haven Substation was 150 pounds per acre. There seed yields differed little from plots clipped for forage in early February and plots not clipped. Only 23 pounds of seed per

acre were harvested from plots clipped in early February and again in mid-March.

Berseem has shown definite boron deficiency at and near the Winter Haven Substation. Preliminary trials there have indicated that applying the boron in the soil as fertilizer was not satisfactory, and that application as a foliage spray was necessary to correct the deficiency. The clover showed symptoms similar to boron deficiency in outfield tests conducted by the Angleton Experiment Station in Calhoun, Jackson and Brazoria Counties. Plants in some fields in that area turned red and became stunted, perhaps due to a combination of climatic factors. Boron and other trace elements applied as both a fertilizer in the soil and as a leaf spray failed to correct the symptoms.

Berseem is a relatively new crop, and large plantings are not encouraged until we know more about it.

*Pounds per acre of air dry forage produced by berseem clover and Hubam sweetclover at Angleton, Beeville, College Station, Prairie View and Winter Haven.*

	BERSEEM	HUBAM
Angleton-3-year average, 1950-52	6,250	3,420
Beeville-3-year average, 1950-52	2,740	2,160
Brazos Valley-2-year average, 1949-50 and 1951-52	5,875	5,995
Prairie View-2-year average, 1951-52 and 1952-53	2,575	3,130
Winter Haven-2-year average, 1952-53 and 1953-54	5,725	6,675

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