



Berseem

Berseem

Scientific Name : *Trifolium alexandrinum*

Family: Fabaceae

Common name: berseem clover,
Egyptian clover [English], bersim

- One of the most important leguminous forages
 - Berseem is annual, Shallow tap root system
 - Its stem are hollow, branching at the base with alternate leaves bearing 4-5cm long leaflets
 - Flowers are yellowish-white and form dense, elliptical clustered heads
- It is not frost tolerant and will winterkill in the upper Midwest
 - It is also an excellent choice for a cover crop due to its vigorous growth and good Nitrogen-fixing potential.

Overview

Uses : Hay—Silage—Pasture—Cover
crop

Strengths: Productive Fast growing
Tolerates wet ground

~~Weaknesses: Will not tolerate frost~~
Cannot be allowed to flower or it loses
productivity

Susceptible to root-knot nematode

Cultivation Practices



Variety

Saidi

Miskawi

Multicut

Bigbee.

Berseem is only propagated by seeds and is usually sown in early autumn.

It can be sown on a conventional seedbed or be direct drilled.

Berseem can be sown alone or in combination with other species.

Berseem can be integrated into a rice-wheat cropping system, as a winter and spring feed: it is then sown before or just after rice harvest.

Seeding Rate Alone: 8 – 12 lb /acre (drilled) ;
10 – 15 lb /acre (broadcast) with ~ 2 - 4 bushels
of oats as a nurse crop

Seeding Rate in Mixtures: 3 – 6 lbs/acre

Range of **Seeding Dates:** Early spring (mid
April to mid May) for forage, hay or cover crop –
Mid August for late season cover crop

Methods of seeding: Broadcast & roll or drill

Best seeding depth: $\frac{1}{4}$ - $\frac{1}{2}$ Inch

Best Soil types: Medium-loam soil – clay

pH tolerances: 6.5 – 7.5

 Ten to 15 irrigations are generally necessary
for fodder production

HARVEST INFORMATION



AS A GRAZING CROP?

AS A HAYING CROP?

AS A SILAGE CROP?


As a grazing crop

- ✍ Berseem clover needs a relatively weed-free, firm seedbed for optimum germination.
- ✍ It does best under rotational grazing and must be grazed before it flowers or it loses productivity
- ✍ It should not be grazed to less than 3 inches.
- ✍ It provides palatable and nutritious forage with a high relative feed value.
- ✍ The crude protein is equivalent or slightly higher than alfalfa. **(18-28%)**

As a haying crop

- ✍ Berseem clover is an excellent choice for haying.
- ✍ It should be sown in the spring with a nurse crop.
- ✍ Plants should be cut at 10 – 15 inch height when new shoots appear at the bottom of the stem.
- ✍ The first cutting will be 50 – 60 days after planting (when companion crop has headed out) and the second will be 45 – 50 days later.
- ✍ It must be cut before it flowers and should not be cut lower than 3 inches.
- ✍ When planted with a nurse crop it can be taken all together for silage or chopped & allowed to regrow

As a silage crop

 **Berseem can be mixed with 20% ground maize to provide high quality silage**

 **It is possible to make silage with berseem and 5% molasses**

It can also be used as

👉 **Cover crops**

👉 **Soil improver and erosion control**

👉 **Weed control**

Nutritional value

Berseem (*Trifolium alexandrinum*), aerial part, fresh



Main analysis	Unit	Avg	SD	Min	Max	Nb
Dry matter	% as fed	12.5	3.9	8.4	25.7	86
Crude protein	% DM	19.9	2.9	14.4	26.7	121
Crude fibre	% DM	22.3	3.3	15.7	28.5	107
NDF	% DM	44.8	5.4	30.6	51.2	77 *
ADF	% DM	27.6	4.6	20.6	38.4	111 *
Lignin	% DM	5.1	1.3	2.8	8.3	50
Ether extract	% DM	3.2	0.9	1.8	5.1	28
Ash	% DM	15.4	2.1	11.3	20.2	112
Water-soluble carbohydrates	% DM	5.1		3.9	6.3	2
Gross energy	MJ/kg DM	17.4				*

Minerals	Unit	Avg	SD	Min	Max	Nb
Calcium	g/kg DM	19.3	3.8	14.0	26.0	36
Phosphorus	g/kg DM	2.7	0.7	1.5	3.8	31
Potassium	g/kg DM	45.9				1
Manganese	mg/kg DM	34				1
Zinc	mg/kg DM	17				1
Copper	mg/kg DM	5				1

Berseem (*Trifolium alexandrinum*), hay



Main analysis	Unit	Avg	SD	Min	Max	Nb
Dry matter	% as fed	88.6	1.3	86.7	90.4	14
Crude protein	% DM	15.7	2.4	12.4	22.0	14
Crude fibre	% DM	26.9	3.4	22.6	36.1	13
NDF	% DM	49.3		32.0	55.9	2 *
ADF	% DM	30.2		22.0	38.4	2 *
Ether extract	% DM	2.4	0.1	2.2	2.7	10
Ash	% DM	13.7	4.0	8.6	24.8	13
Gross energy	MJ/kg DM	17.5				*
Minerals	Unit	Avg	SD	Min	Max	Nb
Calcium	g/kg DM	21.9	5.6	13.1	28.0	10
Phosphorus	g/kg DM	2.6	0.5	1.9	3.4	10

Summary

- 🚩 Winter-annual legume
- 🚩 Native to the Mediterranean region
- 🚩 N content 2.6%
- 🚩 Flowers May-June
- 🚩 Tolerates close mowing
- 🚩 Does not self-reestablish: requires annual sowing
- 🚩 Does well on deep alluvial soils
- 🚩 Tolerates alkalinity and salinity



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