

BERSEEM *Trifolium alexandrium*, $2n = 2x = 16$

Origin : Egypt

Karyotypic analysis of Berseem clover showed the presence of $2n = 2x = 16$ chromosome number having 7 pairs of metacentric and 1 pair of sub-metacentric chromosomes.

Economic Uses of Berseem:

1. Berseem is leguminous fodder crop and provide proteins and other minerals to animals.
2. It can be fed as green, dry and in silage form.
3. It is very palatable and mostly fed as green fodder to milch animals.
4. It adds atmospheric 'N' in soil which get available to succeeding crop.
5. It improves the soil structure.

Varieties of Berseem:

- i) Diploid - Meskawi
- ii) Tetraploid - Pusa giant

Distribution

Berseem is mainly valued as a winter crop in the subtropics as it grows well in mild winter and recovers strongly after cutting. It does not grow well under hot summer conditions. It is cultivated from 35°N to the Tropics, from sea level up to 750 m (1500 m in North West Himalaya) (Hannaway et al., 2004; Suttie, 1999). Berseem has some frost tolerance, down to -6°C and as low as -15°C for some cultivars (Suttie, 1999). Berseem can grow in areas where annual rainfall ranges between 550 mm and 750 mm. It can withstand some drought and short periods of waterlogging. It does better than alfalfa in high moisture soils and is very productive under irrigation. It is moderately tolerant of salinity and can grow on a wide range of soils, though it prefers fertile, loamy to clay soils with mildly acidic to slightly alkaline pH (6.5-8).

Wild Relatives

No.	Scientific Name	No.	Scientific Name
1	<i>T. fragiferum L.</i>	12	<i>T. alexandrinum L.</i>
2	<i>T. resupinatum L.</i>	13	<i>T. medium L.</i>
3	<i>T. tomentosum L.</i>	14	<i>T. lappaceum L.</i>
4	<i>T. patens</i>	15	<i>T. scabrum L.</i>
5	<i>T. campestre</i>	16	<i>T. incarnatum L.</i>
6	<i>T. procumbens L.</i>	17	<i>T. stellatum L.</i>
7	<i>T. philistaem</i>	18	<i>T. formosum</i>
8	<i>T. xerocephalum</i>	19	<i>T. angustifolium L.</i>
9	<i>T. nervulosum</i>	20	<i>T. dichroanthum</i>
10	<i>T. nigrescens</i>	21	<i>T. purpureum</i>
11	<i>T. repens L.</i>	22	<i>T. desvauxii</i>