

Species Datasheet

Datasheet No. A-140.081.004
(family.genus.species)

DBT- Networ

1.Taxon:

Species: *Melilotus officinalis* (L.) Pall.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms:

- [*Medicago officinalis* \(L.\) E.H.L.Krause](#)
- [*Melilotus arenarius* Grecescu](#)
- [*Melilotus arvensis* Wallr.](#)
- [*Melilotus melilotus-officinalis* Asch. &Graebn.](#)
- [*Melilotus neglectus* Ten.](#)
- [*Melilotus pallidus* Ser.](#)
- [*Melilotus petitpierreanus* Willd.](#)
- [*Trifolium melilotus officinalis* L.](#)
- *Trifoliumofficinale* L

3.Systematic position: APG; Bentham and Hooker:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus: *Melilotus* Mill.
- Species: *Melilotus officinalis* (L.) Pall.

Bentham and Hooker (1862)

- Kingdom: Plantae
- Division: Phanerogamia
- Class: Dicotyledons
- Subclass: Polypetalae
- Series: Calyciflorae
- Cohors: Rosales Bercht. & J. Presl
- Ordo: LeguminosaeJuss.
- Subordo: PapilionaceaeGiseke
- Genus: *Melilotus* Mill.
- Species:*Melilotus officinalis* (L.) Pall.

4.Distribution:

Global:

India:

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5.Indigenous/Exotic/Endemic;Cultivated/Wild:Exotic, cultivated

6.ThreatStatus:

IUCN

BSI

7.Habit and Habitat:Erect Herb

8.Life Form: biennial or annual: Annual or biennial

9.Economic Importance:

10. Probable Progenitor of:

11.DNA

C-valueMethodology

2CDNA: 2.35pg¹Flow cytometry¹

12.Basic chromosome number(s): $x=8^{26,31}$

13. Zygotic chromosome number(s): $2n=16^{11,24,27,28,29,30,31}$

14. Gametic chromosome number(s): $n=8^{22,23,24,26,32}$

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes):

Image file

16.Ploidy level:Diploid^{11,24,26,27,28,29,30,31}

Image file

17.Agametoploidy:

18.Nature of polyploidy (auto, segmental, allo, autoallo):

19.Genomic formula:

20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty):

21.Somaticchromosomes:^{24,31}

Karyotype: majority metacentric chromosomes

Chromosome size: medium

NOR chromosome(s): 2

Degree of asymmetry: symmetrical

Image file

22. Banding pattern(s):

Image file

23.Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization

Image file

24. Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26. Chromosome associations:

Female meiosis

Male meiosis 8 II²⁴

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level: ³¹

DNA level: ^{17, 18}

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocation etc):