

Species Datasheet

Datasheet No. A-140.085.023
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Viciamacrocarpa* (Moris) Bertol
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms: *Vicia sativa* L. subsp. *macrocarpa* (Moris) Arcang. , *Vicia sativa* var. *macrocarpa* Moris

3. Systematic Position: APG IV; Bentham and Hooker:

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: Leguminosae Juss.
Subordo: Papilionaceae Giseke
Genus: *Vicia* L.
Species: *Viciamacrocarpa* (Moris) Bertol

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: Fabales Bromhead
- Family: Fabaceae Lindl.
- Subfamily: Faboideae Rudd
- Genus: *Vicia* L.
- Species: *Viciamacrocarpa* (Moris) Bertol

4. Distribution:

Global Europe

India Experimental stations

5.Indigenous/Exotic/Endemic;Cultivated/Wild;Exotic

6.Threat Status:

IUCN

BSI

7.Habit and Habitat:Herbaceous,Scrambling climber

8.Life Form:Annual

9.Economic Importance:Fodder

10. Probable Progenitor of:Close relative of common vetch, *V.sativa*^{123,124,126,130,131,136,149}

11.DNA

C-value

2C(5.40 pg)^{90,91,92}

Methodology

Microdensitometer

12.Basic chromosome number(s): $x=6$ ^{120, 136}

13. Zygotic chromosome number(s): $2n=12$ ^{9,10,25,90,92,109,120,123,130,136}

14. Gametic chromosome number(s): $n=6$ ¹³⁶

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

Image file

16.Ploidy level:Diploid^{9, 10, 25, 90, 92, 109, 120, 123, 130, 136}

Image file

17.Agametoploidy:

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

19.Genomic formula:

20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty):Trisomics and disomics¹³⁶

21.Somatic chromosomes:^{9,25,29,109 , 123 , 136}

Karyotype Majority metacentric /submetacentric chromosomes

Chromosome size Medium

NOR chromosome(s) 2

Degree of asymmetry Symmetrical

Image file

22. Banding pattern(s): C- banding^{25, 136}

Image file

23. Physical mapping of chromosomes: 18S - 5.8S - 26S and 5S ribosomal gene

families^{10,25,109}

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 6 II ,also 4II +1III+1I,4II +1IV in 10-25 %¹³⁶

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level^{29,44,128,131}

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