

Species Datasheet

Datasheet No. A-140.085.002
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Viciaangustifolia*L.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms: *Vicia sativa*L. subsp. *angustifolia* (L.) Gaudin, *Viciapilosa* M. Bieb., *Vicia*
sativa var. *angustifolia* (L.) Wahlenb., *Vicia sativa* var. *minor* Ohwi, *Vicia*
sativa var. *nigra* L. , *Viciaangustifolia* subsp. *angustifolia*

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

- **APG IV (2016)**
- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus: *Vicia* L.
- Species: *Viciaangustifolia*L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: LeguminosaeJuss.
Subordo: PapilionaceaeGiseke
Genus: *Vicia* L.
Species: *Viciaangustifolia*L.

4.Distribution:

Global

India Experimental stations

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

6.Threat Status:

IUCN

BSI

7.Habit and Habitat:Herbaceous, Scrambling climber,Height ~ 10 - 80 cm

8.Life Form:Annual

9.Economic Importance:

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

11.DNA

C-value **Methodology**

2C(5.00 pg)^{90, 91, 92} Microdensitometer

12.Basic chromosome number(s): $x=6^5$

13. Zygotic chromosome number(s): $2n=10^{122}$, $2n= 12^5, 9, 92, 103, 109, 126, 137$

14. Gametic chromosome number(s): $n= 5^{122}$

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

Image file

16.Ploidy level:Diploid^{5, 9, 92, 103, 109, 122, 126, 137}

Image file

17.Agametoploidy:

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

19.Genomic formula:

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

21.Somatic chromosomes: 5,9,29,103, 109,122,126

Karyotype Majority submetacentric/subtelocentric chromosomes

Chromosome size Medium

NOR chromosome(s) 2

Degree of asymmetry Asymmetrical

Image file

22. Banding pattern(s):

Image file

23.Physical mapping of chromosomes:18S - 5.8S - 26S and 5S ribosomal gene families¹⁰⁹

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 5 II¹²²

Image file

27.Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level¹²⁶

Image file

DNA level 29,44, 128, 131

29.Any other information (Apomixis; Inversion; Male sterility;Pollen grain mitosis;

Pollen stainability;Translocationetc.):Pollen stainability :93 - 97%¹²²