

# Species Datasheet

Datasheet No. A-140.085.037  
(family.genus.species)

DBT- Network Programme

## 1. Taxon:

Species: *Viciasativa*L.  
Subspecies  
Variety  
Cultivar  
Hybrid

Image file

2. Synonyms: *Viciaglobosa* Retz, *Viciamaculata* C. Presl, *Vicia sativa* var. *maculata* (C. Presl)  
Burnat

## 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: LeguminosaeJuss.  
Subordo: PapilionaceaeGiseke  
Genus: *Vicia* L.  
Species: *Vicia sativa* L.

### APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus: *Vicia* L.
- Species: *Vicia sativa* L.

## 4. Distribution:

Global Asia, Africa, Europe  
India Temperate regions  
-

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

## 6. Threat Status:

**IUCN**

**BSI**

**7.Habit and Habitat:**Herbaceous .Scrambling and climbing legume. Height ~ 200 cm

**8.Life Form:**Annual

**9.Economic Importance:**Green manure.Cover crop.Livestock fodder

**10. Probable Progenitor of:**

**11.DNA**

|                |                    |
|----------------|--------------------|
| <b>C-value</b> | <b>Methodology</b> |
|----------------|--------------------|

|                          |                   |
|--------------------------|-------------------|
| 2C(4.50pg) <sup>92</sup> | Microdensitometer |
|--------------------------|-------------------|

|                             |                   |
|-----------------------------|-------------------|
| 4C (9.00 pg) <sup>119</sup> | Microdensitometer |
|-----------------------------|-------------------|

**12.Basic chromosome number(s):** $x=5^5, 6^6, 120, 156$

**13. Zygotic chromosome number(s):** $2n= 10^5, 2n= 12^{8,9,10,25,92,108,109,120,121,122,126,156}$

**14. Gametic chromosome number(s):** $n=6^6, 122$

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

Image file

**16.Ploidy level:**Diploid<sup>5,8,9,10,25,92,108,109,120,121,122,126,156</sup>

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:**<sup>5,9,25,106,108,109,121 - 126,156</sup>

**Karyotype** Metacentric, submetacentric / subtelocentricchromosomes

**Chromosome size** Medium

**NOR chromosome(s)**<sup>2</sup>

**Degree of asymmetry**Symmetrical

Image file

**22. Banding pattern(s):**C- banding<sup>25</sup>

Image file

**23. Physical mapping of chromosomes:**18S - 5.8S - 26S and 5S ribosomal gene families<sup>10,106,</sup>

<sup>109</sup>;Repetitive DNA sequences<sup>108</sup>

**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**<sup>6, 122</sup>

Image file

**27. Chromosome distribution at anaphase I:**<sup>6, 6</sup>

**28. Genetic diversity:**

**Chromosomal level**<sup>121, 122, 124, 126</sup>

Image file

**DNA level**<sup>127, 128</sup>

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

**Pollen stainability; Translocation etc.):**Pollen stainability: 93 - 97 %<sup>6</sup>