Species Datasheet

Datasheet No. A-140.085.027
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Vicianarbonensis*L.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms:*Viciaserratifolia* f. *integrifolia* Beck

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: *Vicianarbonensis*L

APG IV (2016)

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

4.Distribution:

GlobalAsia, Africa, Europe

IndiaExperimental stations
-

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

6.Threat Status:

IUCN

BSI

7.Habit and Habitat: Herbaceous,Thick, Angular, Erect pubescent stems that can grow upto20- 80 cm

8.Life Form: Annual

9.Economic Importance: Marginal crop

10. Probable Progenitor of:*Viciafaba*[94,95,96,110]

11.DNA

C-value	**Methodology**
2C (16.11 pg)[92]	Microdensitometer
2C (27.29pg)[4]	Microdensitometer
4C(29.10 pg)[3,98,99]	Microdensitometer

12.Basic chromosome number(s):x= 7[5,6 ,100]

13. Zygotic chromosome number(s):2n= 14 [3,4,5,7,8,10,13,25,92,99– 109]

14. Gametic chromosome number(s):n=7[6,7,100,l02]

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

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16.Ploidy level: Diploid[3, 4 , 5,7, 8 , 10, 13, 25, 92 , 99 - 109]

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:4,5,7,13,25, 29,101,102,103, 104,105,107,108,109

Karyotype Majority metacentric /submetacentric chromosomes

Chromosome size Medium

NOR chromosome(s)2

Degree of asymmetry Symmetrical

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22. Banding pattern(s):C-banding[25 ,35,98]

Image file

23.Physical mapping of chromosomes:18S - 5.8S - 26S and 5S ribosomal gene families[10,105,106] ;Repetitive DNA sequences[108]

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 meiosis7

Male meiosis 7IIwith occasional univalents and multivalent [6,7,100,102]

Image file

27.Chromosome distribution at anaphase I:7:7[6,100,102]

28. Genetic diversity:

Chromosomal level101, 103,105,107

Image file

DNA level29,44,46,49,50,51,61

29.Any other information (Apomixis; Inversion; Male sterility;Pollen grain mitosis; Pollen stainability;Translocationsetc.): There are three types of chromosome complements in*V. narbonensis* subspecies, varieties included.Each complement differ in karyomorphology. All the three are translocation homozygotes[102];Pollenstainability: 95 - 99%[6]