

Species Datasheet

Datasheet No. A-140.002.034
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species:

Subspecies: *Vigna unguiculata* subsp. *sesquipedalis* (L.) Verdc.

Variety:

Cultivar:

Hybrid:

Image file:

2. Synonyms: *Dolichos sesquipedalis* L., *V. sesquipedalis* (L.) Fruwirth, *V. sesquipedalis* (L.) F. Agcaoili, *V. sinensis* subsp. *sesquipedalis* (L.) Van Eselt., *V. sinensis* var. *sesquipedalis* (L.) Asch. & Schweinf., *V. unguiculata* var. *sesquipedalis* (L.) H. Ohashi, *V. unguiculata* var. *sesquipedalis* (L.) Bertoni

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: Fabales Bromhead
- Family: Fabaceae Lindl.
- Subfamily: Faboideae Rudd
- Genus: *Vigna* Savi
- Species: *V. unguiculata* (L.) Walp.
- Subspecies: *V. unguiculata* subsp. *sesquipedalis* (L.) Verdc.

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: *Vigna* Savi
Species: *V. unguiculata* (L.) Walp.
Subspecies: *V. unguiculata* subsp. *sesquipedalis* (L.) Verdc.

4. Distribution:

Global: India, Tropical Africa.

India: Bihar, Madhya Pradesh, Orissa, North East India

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Erect and bushy herb

8. Life Form: Therophytes

9. Economic Importance: Seed are rich in protein and cooked.

10. Probable Progenitor of:

11. DNA

C-value

Methodology

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n=22^{4,69}$

14. Gametic chromosome number(s): $n=11^4$

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

Image file

16. Ploidy level: Diploid^{4,69}

Image file

17. Agametoploidy:

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

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomy, polysomy):

21. Somatic chromosomes:⁶⁹

Karyotype Majority metacentric chromosomes

Chromosome size Small

NOR chromosome(s)

Degree of asymmetry Symmetrical

Image file

22. Banding pattern(s): CMA banding⁶⁹

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:⁷⁰

Image file

26. Chromosome associations:

Female meiosis

Male meiosis: 11II⁴

Image file

27. Chromosome distribution at anaphase I: 11:11⁴

28. Genetic diversity:

Chromosomal level⁶⁹

DNA level^{10,50,69}

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

Pollen stainability; Translocations etc.): Pollen stainability: 82-99%⁴