Species Datasheet

Datasheet No. A-140.002.003 **DBT-**
(family.genus.species)

1. Taxon:

Species:*Vignaangularis* (Willd.) Ohwi&H. Ohashi
Subspecies:
Variety:
Cultivar:
Hybrid:

Image file:

2. Synonyms:*Azukiaangularis* (Willd.) Ohwi, *Dolichosangularis*Willd.,*P. angularis* (Willd.) W. Wight, *P. mungo* L., *Vignaangularis* (Willd.) Ohwi& H. Ohashi

3.Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus: *Vigna*Savi
- Species: *V. angularis* (Willd.) Ohwi& H. Ohashi

Bentham and Hooker (1862)

Kingdom: Plantae
Division:Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: RosalesBercht. & J. Presl
Ordo: LeguminosaeJuss.
Subordo: PapilionaceaeGiseke
Genus: *Vigna*Savi
Species: *V. angularis* (Willd.) Ohwi& H. Ohashi

4. Distribution:

Global: Asia,Australia, China, Japan,North America, South Africa and Vietnam

India: Assam, Gujarat, Karnataka, Punjab, Sikkim, Tamil Nadu, Uttar Pradesh

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Non-climbing herb; it can be grown at elevations from 420 - 1,500 metre and best in areas where annual daytime temperatures are within the range 15 - 30°C, but can tolerate 5 - 36°C

8. Life Form: Therophytes

9. Economic Importance: Pulse crop, mature seed - cooked, dried bean is boiled and used in dishes, roasted seed has been used as a coffee substitute, plant can be grown as a green manure and to prevent soil erosion, A flour made from the beans is used in making shampoos, beans are used to treat diseases like kidney trouble, constipation, abscesses, certain tumours.

10. Probable Progenitor of: *Vignaglabrescens*[12,13]

11. DNA

C-value	Methodology
2C(2.70 pg)	Microdensitometer [14]

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): 2n=22[6,14,15]

14. Gametic chromosome number(s):

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

Image file

16. Ploidy level: Diploid[6,14,15]

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:[6,15]

Karyotype Majority metacentric chromosomes

Chromosome size Small

NOR chromosome(s)

Degree of asymmetry Symmetrical

Image file

22. Banding pattern(s):

Image file

23. Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization: 18S- 5.8S - 26S and 5S ribosomal gene families [6]

Image file

24. Genomic in situ hybridization:[6]

Image file

25. Linkage map:[16,17,18]

Image file

26.Chromosome associations:

Female meiosis

Male meiosis

Image file

27.Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

DNA level[7,9,10,19,20,21,22,23]

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability;Translocationsetc.): Translocations[24]