

Species Datasheet

Datasheet No. A-140.002.017
(family.genus.species)

DBT- Networ

1. Taxon:

Species: *Vignamungo* (L.) Hepper

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file:

2. **Synonyms:** *Azukiamungo* (L.) Masam., *Phaseolushernandezii* Savi, *P. mungo* L., *P. mungo* L. var. *radiates* Baker, *P. roxburghii* Wight & Arn.

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: *Vignamungo* (L.) Hepper

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: *Vignamungo* (L.) Hepper

4. Distribution:

Global: Australia, Bangladesh, India, Ghana, and Zaire, widely cultivated in tropics.

India: Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, throughout plains

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

6. Threat Status:

IUCN:

BSI:

7. **Habit and Habitat:** Erect herb; cultivated in many areas of the tropics

8. **Life Form:** Therophytes

9. **Economic Importance:** Pulse crop, forage crop

10. **Probable Progenitor of:**

11. DNA

C-value

Methodology

2.83pgMicrodensitometer¹⁴

12. Basic chromosome number(s): $x=11$ ^{1,25}

13. Zygotic chromosome number(s): $2n=22$ ^{4,5,6,14,25,36,77,78,79}

14. Gametic chromosome number(s): $n=11$ ^{4,79}

15. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene

chromosomes/Neocentric chromosomes):B chromosomes ⁴

Image file

16. Ploidy level: Diploid^{4,5,6,14,25,36,77,78,79}

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:^{1,6,25,77,78}

Karyotype Metacentric / Submetacentricchromosomes

Chromosome sizeMedium

NOR chromosome(s)2

Degree of asymmetrySymmetrical

Image file

22. Banding pattern(s):CMA banding^{5,36,78}

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:^{80,81}

Image file

26. Chromosome associations:

Female meiosis

Male meiosis: 1111^{4,79}

Image file

27. Chromosome distribution at anaphase I: 11:11⁴

28. Genetic diversity:

Chromosomal level⁷⁸

DNA level^{8,9,10,21,22,59,60,61,68,82-92}

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

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