

Species Datasheet

Datasheet No. A-140.001.003
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Arachis cardenasii* Krapov. & W.C. Greg.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms:

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: Fabales
- Family: Fabaceae Lindl.
- Subfamily: Faboideae Rudd
- Genus: *Arachis* L.
- Species: *A. cardenasii* Krapov. & W.C. Greg.

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: *Arachis* L.

Species: *A. cardenasii* Krapov. & W.C. Greg.

4. Distribution:

Global: Bolivia

India: Experimental stations

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

6. Threat Status:

IUCN: Least Concern

BSI:

7. Habit and Habitat: Erect herb, Tropical regions

8. Life Form: Perennial

9. Economic Importance:

10. Probable Progenitor of: *A. hypogaea*^{7,20,92,93}

11. DNA

C-value Methodology

2C(3.01pg)² Flow cytometry

2C(5.68pg)¹² Feulgen cytophotodensitometry

2C(6.10 pg)⁸⁷ Feulgen microdensitometry

12. Basic chromosome number(s): $x = 10$ ^{2,5,7,12,96}

13. Zygotic chromosome number(s): $2n = 20$ ^{2,5,6,7,14,17,18,19,20,22,23,26,27,87,96,97,113}

14. Gametic chromosome number(s): $n = 10$ ^{7,96,109}

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

Image file

16. Ploidy level: Diploid^{2,5,6,7,14,17,18,19,20,22,23,26,27,87,96,97,113}

Image file

17. Agamete ploidy:

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

19. Genomic formula: AA^{2,14,17,18,19,22,26,34,87,96,109}

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

21. Somatic chromosomes: 2,6,7,14,19,97,106

Karyotype Majority metacentric / submetacentric chromosomes

Chromosome size Small

NOR chromosome(s) 2

Degree of asymmetry Symmetrical

Image file

22. Banding pattern(s): C-banding⁶, Heterochromatic DAPI⁺ bands^{2,19,106}, Centromeric

DAPI + bands^{14,17}

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^{14,19,106}

Image file

24. Genomic in situ hybridization:

Image file

25. Linkage map:^{76,77}

Image file

26. Chromosome associations:

Female meiosis

Male meiosis 10 II^{7, 96,109}

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level^{23,27,32,33,34,38,42,44,51,63,64}

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

Pollen stainability; Translocation etc.): Pollen stainability: 91 - 92 %³⁶, 99.60 %⁹⁶,
97.27 %¹⁰⁹