

Species Datasheet

Datasheet No. A-140.001.008
(family.genus.species)

DBT- Network Programme

1. Taxon:

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

Subspecies

Variety

Cultivar

Hybrid

Image file

2. **Synonyms:** *Arachis argentinensis* Speg., *Arachis spegazzinii* M. Greg. & 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. duranensis* Krapov. &
W.C. Greg.

3. Systematic Position:

APG IV (2016)

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

4. Distribution:

Global: South America

India: Experimental stations

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

6. Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Herbaceous, Tropical regions

8.Life Form:Annual

9.Economic Importance:

10. Probable Progenitor of:A genome donor of *A. hypogaea* , *A. monticola*, *A. hypogaea* subsp.*fastigiata*^{19, 23, 30, 31, 33, 37, 44,91,94,95,102 -107,114}

11.DNA

C-value

Methodology

2C (2.49 - 2.87) ²

Flow cytometry

2C (4.92pg)¹²

Feulgencytophotodensitometry

2C (5.33 - 5.91 pg)⁸⁷

Feulgenmicrodensitometry

2C(2.55 pg)¹⁰⁸Flow cytometry

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

13. Zygotic chromosome number(s): $2n = 20$ ^{2,5,7,14,17,18,19,22,23, 26,27,37,87,97}

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

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

Image file

16.Ploidy level:Diploid ^{2,5,7,14,17,18,19,22,23, 26,27,37,87,97}

Image file

17.Agameteoploidy:

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

19.Genomic formula:AA ^{2,14,17,18,19,22,26,87,99,109}

20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty):

21.Somatic chromosomes:2,7,14,19,37,97,106,110

Karyotype Majority metacentric/submetacentricchromosomes

Chromosome sizeSmall

NOR chromosome(s)2

Degree of asymmetrySymmetrical

Image file

22. Banding pattern(s):C - banding⁶, DAPI + bands^{2,14,17,19,106}

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:¹⁷

Image file

25. Linkage map:^{78,82,85,111}

Image file

26. Chromosome associations:

Female meiosis

Male meiosis10 II^{7,109}

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level^{23,26,27,32,33,37,38,42,50,51,57,63,64,110}

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

Pollen stainability; Translocations etc.):Pollen stainability: 86 - 96 %³⁶, 99.25 %¹⁰⁹