

Species Datasheet

DBT- Network Programme

Datasheet No. A-140.047.142
(family.genus.species)

1. Taxon:

Species *Crotalaria verrucosa*L.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms:

- *Anisantherahastata*Raf.
- *Anisanthera versicolor* Raf.
- *Crotalaria acuminata*(DC.) G.Don
- *Crotalaria angulosa*Lam.
- *Crotalaria arnottiana*Benth.
- *Crotalaria coerulea*Bedd.
- *Crotalaria coerulea*Jacq.
- *Crotalaria flexuosa*Moench
- *Crotalaria flexuosa*Baker
- *Crotalaria hastata*Steud.
- *Crotalaria mollis*Weinm.
- *Crotalaria mollis*Weinmann
- *Crotalaria paramariboensis*Miq.
- *Crotalaria semperflorens*Vent.
- *Crotalaria verrucosavar.acuminata*DC.
- *Crotalaria verrucosavar.gemina*Stehlé
- *Crotalaria verrucosavar.obtusa*DC.
- *Crotalaria wallichiana*Wight & Arn.
- *Phaseolusbulai*Blanco
- *Quirosia anceps* Blanco

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Superrosids
- Clade: Rosids
- Clade: Fabids
- Order: Fabales Bromhead
- Family: Fabaceae Lindl.
- Subfamily: Faboideae Rudd
- Genus: *Crotalaria* L.
- Species: *C. verrucosa*L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: LeguminosaeJuss.
Subordo: PapilionaceaeGiseke
Genus: *Crotalaria* L.
Species: *C. verrucosa*L.

4. Distribution:

Global: Australia, South-Eastern Asia, Caribbean, Belize, Brazil, Colombia, Costa Rica, French Guiana, French Polynesia, Gabon, Honduras, Laos, Madagascar, Mexico, Nicaragua, Panama, Papua New Guinea, South Africa, Suriname, Turkey, Uganda, United States.

India

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

6. Threat Status:

IUCN

BSI

7. Habit and Habitat: Erect, Herb. Habitat: Deciduous forests, also in the plains.

8. Life Form: Annual

9. Economic Importance: Leaf paste is applied to cure headaches.

10. Probable Progenitor of:

11. DNA

C-value Methodology

2C DNA = 2.51pg

Feulgen Microdensitometer¹¹

4C DNA = 5.01pg

Feulgen Microdensitometer¹¹

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n=16^{8,11,13,15,17,23,29,33,38,46}$

$2n=14^{59}$

14. Gametic chromosome number(s): $n=8^{8,13,16,17,23,46,57,99,100,110,111}$

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

Image file

16. Ploidy level: Diploid^{8,11,13,15,23,33,46}

Image file

17. Agamete ploidy:

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

19. Genomic formula:

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

21. Somatic chromosomes: 8, 13, 15, 23, 33

Karyotype: Majority Submetacentric / Metacentric chromosomes

Chromosome size: Medium

NOR chromosome(s): 2

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

Image file

24. Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26. Chromosome associations: 8II²³, 9II¹¹⁰

Female meiosis

Male meiosis 23, 110

Image file

27. Chromosome distribution at anaphase I: 8:8²³

28. Genetic diversity:

Chromosomal level

DNA level: 69

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocation etc):

Pollen stainability: 90%²³