

Species Datasheet

Datasheet No. A-403.024.001
(family.genus.species)

DBT-1

1. Taxon:

Species: *Cosmos bipinnatus* Cav.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. **Synonyms:** [*Bidens bipinnata* Baill.](#), [*B. formosa* \(Bonato\) Sch.Bip.](#), [*B. lindleyi* Sch.Bip.](#), [*Coreopsis formosa* Bonato](#), [*C. formosa* Bonato ex Pritz.](#), [*Cosmeatenifolia* \(Lindl.\) Lindl. ex Heynhold](#), [*C. tenuifolia* Lindl. ex Heynh.](#), [*C. tenuifolia* \(Lindl.\) J.W. Loudon](#), [*Cosmos bipinnatus* var. *albiflorus* Sprenger](#), [*C. bipinnatus* var. *bipinnatus*](#), [*C. bipinnatus* var. *exaristatus* DC.](#), [*C. formosa* Bonato](#), [*C. hybridus* Goldring](#), [*C. hybridus* Auct.](#), [*C. spectabilis* Auct.](#), [*C. × spectabilis* Carrière](#), [*C. × spectabilis* var. *alba* Carr.](#), [*C. × spectabilis* var. *rosea* Carr.](#), [*C. tenuifolia* Lindl.](#), [*C. tenuifolius* Lindl.](#), [*Georgiabipinnata* \(Cav.\) Spreng.](#)

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Superasterids
- Clade: Asterids
- Order: Asterales Link
- Family: Asteraceae Bercht. & J. Presl
- Genus: *Cosmos* Cav.
- Species: *C. bipinnatus* Cav.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Gamopetalae
Series: Inferae
Cohors: Asterales Link
Ordo: Compositae Giseke
Genus: *Cosmos* Cav.
Species: *C. bipinnatus* Cav.

4. Distribution:

Global: Argentina, Bolivia, Brazil, Canada, Caribbean, China, Colombia, Costa Rica, El Salvador, Guatemala, Guyana, Honduras, India, Mexico, Venezuela, Peru, USA

India: Cultivated

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Herb.

8. Life Form: Chamaephytes

9. Economic Importance: Grown in gardens

10. Probable Progenitor of:

11. DNA

C-value Methodology

2C(3.08pg)¹ Microdensitometer

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n = 24^{1-11}$

14. Gametic chromosome number(s): $n = 12^{2,8,12-14}$

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

Image file

16. Ploidy level:

Image file

17. Agametoploidy:

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

19. Genomic formula:

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

21. Somatic chromosomes:¹

Karyotype Majority metacentric chromosomes

Chromosome size

NOR chromosome(s) 6

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:

Female meiosis

Male meiosis

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level¹⁵

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