

Genus Datasheet

Datasheet No. A-028.008
(Family.Genus)

DBT- Network Programme

1. Genus: *Caladium* Vent.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperm
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Araceae Juss.
- Genus: *Caladium* Vent.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Nudiflorae
Ordo: Aroideae Arn.
Genus: *Caladium* Vent.

3. Species:

Global: 14

India: 1

4. Taxonomic riddles:

5. Distribution:

Global: Tropical America, West Indies

India: Naturalised in South India

6. Habit and Habitat: Herb, humid forest, open woodlands, geophytes, forest floor, river margins and damp site.

7. Economic Importance: -Use as ornamental plant

8. DNA content range:

2C(11.04-20.26pg)¹

2C(4.67-9.75pg)²

4C(22.07-40.52pg)¹

Methodology:

Feulgen microdensitometry¹

Flow cytometry²

9. Basic chromosome number(s): $x=14$ ¹⁷
 $x=15$ ¹⁶

10. Zygotic chromosome number(s): $2n=20$ ²

$2n=26$ ^{4,7,24}

$2n=28$ ^{3,4,5,6,7,8,9,10,24}

$2n=30$ ^{2,3,4,7,9,11,12,13,14,15,16,17,18,19,24}

$2n=32$ ^{1,4,24}

$$2n=48^{20}$$

$$2n=66^1$$

11. Gametic chromosome number(s): $n=14^{4,5}$
 $n=15^{4,17}$

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/ N chromosomes):

13. Ploidy level: Diploid ⁵

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

15. Aberrant chromosome number(s) (aneuploidy,aneusomaty, polysomaty):Variant chromo
somatic cells showing $2n=14^6$, $2n=19^2$, $2n=24^4$, $2n=27^{5,6}$, $2n=28^6$, $2n=29^6$, $2n=30^{4,5,6}$, $2n=3$
 4,5,6 , $2n=33^6$, $2n=58^4$

16.Karyograms:^{4,5,18} **Meiosis:**^{4,5,17}

17. Banding pattern(s):

18. Physical mapping of chromosomes:

GISH:

19. Phylogenetic relationship at Chromosomal; DNA level: DNA level^{21,22,23}

20. Cytogenetic mechanism(s) underlying evolution: Inconstancy in the chromosome cor
somatic tissue in the genus *Caladium* plays a significant role in speciation ⁴. Moreover, tl
structural variation in speciation is greater as compared to the numerical alteration⁴

21. Linkage map:

22. Any other information: Paracentric inversion¹⁷