

Species Datasheet

Datasheet No. A-028.023.007
(family.genus.species)

DBT- Network Programme

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1. Taxon:

Species *Typhonium trilobatum* (L.) Schott

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms:

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperm
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Araceae Juss.
- Genus: *Typhonium* Schott
- Species: *T. trilobatum* (L.) Schott

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Nudiflorae
Ordo: Aroideae Arn.
Genus: *Typhonium* Schott
Species: *T. trilobatum* (L.) Schott

4. Distribution:

Global: India to South China and Malaya

India: Peninsular, East & North East India.

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Herb, tropical secondary forests, thickets, grasslands, roadsides

8. Life Form: Tuberous geophytes

9. Economic Importance:

10. Probable Progenitor of:

11. DNA

C- value

4C (6.44±0.34pg) ³

4C (6.59pg) ⁶

4C (7.05±0.21pg) ³

Methodology

Feulgen cytophotometry ³

Feulgen microdensitometry ⁶

12. Basic chromosome number(s): x=9 ¹

13. Zygotic chromosome number(s): 2n=17 ²³

2n=18 ^{3,7,8,11,13,18,19,21,22,23}

2n=19 ²²

2n=26 ^{18,20}

2n=36 ¹

2n=40 ⁶

14. Gametic chromosome number(s): n=9 ^{7,13,21}

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

Image file

16. Ploidy level: Tetraploid ¹

Image file

17. Agametoploidy

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

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Variant chromosome number in somatic cells showing 2n=12 ⁷, 2n=16 ⁷

21. Somatic chromosomes:

Karyotype Majority metacentric chromosome ^{3,18,22,23}, Majority nearly submetacentric to nearly metacentric chromosomes ⁷, Majority nearly submetacentric chromosomes ¹⁸, Majority submetacentric chromosomes ¹¹

Chromosome size Very small to small ^{7,11,18,22,23}, Small ¹

NOR chromosome(s) 2 NOR ⁷, 4 NOR ^{3,6,18}, 6 NOR ¹⁸

Degree of asymmetry: Symmetrical or asymmetrical ³, Asymmetrical ²²

Image file

22. Banding pattern(s): DAPI⁺ Bands ²², CMA⁺ Bands ^{22,23}

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 9II ⁷, 1(4)+1(3)+1(2) ⁷, 1(4)+1(3)+2(1) ⁷, 1(4)+1(2)+3(1) ⁷, 1(3)+2(2)+2(1) ⁷,
1(3)+1(2)+4(1) ⁷, 2(3)+3(1) ⁷, 1(3)+3(2) ⁷, 1(5)+1(2)+2(1) ⁷

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level ¹⁴

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