

Species Datasheet

Datasheet No. A-074.001.009
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Drimia wightii* Lakshmin.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. **Synonyms:** *Indurgia congesta* (Wight) Speta, *Thuranthos congestus* (Wight) Speta, *Urginea congesta* Wight

3. Systematic Position:

Bentham and Hooker (1862)

Kingdom: Plantae

Division: Phanerogamia

Class: Monocotyledones

Series: Coronarieae

Ordo: Liliaceae Juss.

Genus: *Drimia* Jacq.

Species: *D. wightii* Lakshmin.

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Asparagaceae Juss.
- Subfamily: Scilloideae Burnett
- Genus: *Drimia* Jacq.
- Species: *D. wightii* Lakshmin.

4. Distribution:

Global: South India

India: Eastern and Western sea coast, Tamil Nadu

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

6. Threat Status:

IUCN:

BSI:

7. **Habit and Habitat:** Bulbous herb and grows in sandy soil

8. **Life Form:** Bulbous geophytes

9. **Economic Importance:**

10. **Probable Progenitor of:**

11. DNA

C- value

2C (23.80 pg)^{1,2}

2C (24.00 pg)²

2C (27.60 pg)²

Methodology

Flow Cytometry^{1,2}

12. **Basic chromosome number(s):**

13. **Zygotic chromosome number(s):** 2n= 20^{1,2,15,21,29}

$$2n=40^{29}$$

14. **Gametic chromosome number(s):** $n=10^{15}$

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

Image file

16. **Ploidy level:** Diploid ^{1, 2, 15, 21, 29}

Tetraploid ²⁹

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:**

Karyotype Majority subtelocentric chromosomes ^{2, 15, 21}

Chromosome size Small to large ^{2, 15}

NOR chromosome(s) 2 NOR ²

Degree of asymmetry: Highly asymmetrical ²⁹; Stebbin's 2b class ¹⁵; Stebbin's 1b class ^{2, 21}

Image file

22. **Banding pattern(s):** Fluorescent banding by CMA/ DAPI staining ²

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 10II ¹⁵

Image file

27. **Chromosome distribution at anaphase I:** Normal ¹⁵

28. **Genetic diversity:**

Chromosomal level ²

Image file

DNA level ^{29, 43}

29. **Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc):** Pollen stainability: (92- 98%) ¹⁵