Species Datasheet

Datasheet No. A-073.002.017 **DBT- Network Programme**
(family.genus.species)

1. Taxon:

Species *Allium hookeri* Thw.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms: *Allium hookeri* var. *hookeri, Allium tsoongii* F.T. Wang & Tang

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Amaryllidaceae J. St.-Hil.
- Subfamily: Allioideae Herb.
- Genus: *Allium* L.
- Species: *A. hookeri* Thw.

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Coronarieae
Ordo: Liliaceae Juss.
Genus: *Allium* L.
Species: *A. hookeri* Thw.

4. Distribution:

Global: Bhutan, China, India, Myanmar, Sri Lanka, Tibet

India: Assam, Arunachal Pradesh, East Himalaya, Meghalaya, Sikkim and West Bengal

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

6. Threat Status:

IUCN: Not been assessed yet

BSI:

7. Habit and Habitat: Herbaceous, height ~90 cm; in open or in marshy areas between 1200 m to 4100 m altitude, Temperate

8. Life Form: Bulbous geophyte

9. Economic Importance: Vegetable

10. Probable Progenitor of:

11. DNA

C- value	Methodology
2C (31.62 pg)[3,4]	Feulgen cytophotometry[3,4]
4C (63.24±1.55 pg)[3,4]	

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): 2n=22 [3,4,7,31,42,43,44,103,186,199,202,203,204,205,206]
2n=33[199]
2n=44[199,205]

14. Gametic chromosome number(s):

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

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16. Ploidy level: Diploid [3,4]

Image file

17. Agametoploidy

18. Nature of polyploidy (auto, segmental, allo, autoallo): Numerical variants of segmental allotriploids [43]

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Polysomaty involving various numbers mainly around the tetraploid level [31]

21. Somatic chromosomes:

Karyotype Majority submetacentric chromosomes [42,43,44]

Chromosome size Medium to large [43, 44]

NOR chromosome(s) 1 NOR [43]

Degree of asymmetry: Asymmetrical [42,43]

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 Multivalents (III to X) in addition to II's and I's [43]

Image file

27. Chromosome distribution at anaphase I: Irregular [43]

28. Genetic diversity:

Chromosomal level

Image file

DNA level

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocations etc): Pollen stainability (%): 0.05% [43]