Species Datasheet

Datasheet No. A-073.002.016 **DBT- Network Programme**
(family.genus.species)

1. Taxon:

Species *Allium griffithianum* Boiss.
Subspecies
Variety
Cultivar
Hybrid

Image file

2. Synonyms: *Allium bahri* Regel, *A. jacquemontii* var. *grandiflorum* (Boiss.) Aswal *A. kuschakewiczii* Regel, *A. rubellum* var. *grandiflorum* Boiss., *A. tenue* Regel, *A. tschulpias* Regel

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. griffithianum* Boiss.

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

4. Distribution:

Global: Afghanistan, Central Asia, India, Pakistan

India: Jammu and Kashmir, Punjab

5. Indigenous/Exotic/ Endemic; Cultivated/Wild: Wild, occasionally cultivated

6. Threat Status:

IUCN: Not been assessed yet

BSI:

7. Habit and Habitat: Herbaceous; height~ 20-30 cm; on gravelly soil between 1500 m and 2100 m altitude.

8. Life Form: Bulbous geophyte.

9. Economic Importance: Condiment

10. Probable Progenitor of:

11. DNA

C- value	Methodology
2C (20.57 pg)[3,4]	Feulgen cytophotometry[3,4]
4C (41.15±0.39 pg)[3,4]	

12. Basic chromosome number(s): x=8[5]

13. Zygotic chromosome number(s): 2n=16 [3,4,46,200,201]

2n=32 [5,6,9]

14. Gametic chromosome number(s): n=16[5]

15. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes): B chromosome (1)[46]

Image file

16. Ploidy level: Diploid [3,4, 46], Tetraploid [5,6]

Image file

17. Agametoploidy

18. Nature of polyploidy (auto, segmental, allo, autoallo): Autotetraploid [6]

19. Genomic formula:

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

21. Somatic chromosomes:

Karyotype Majority metacentric chromosome[6,46]

Chromosome size Medium to large [6], large to very large[46]

NOR chromosome(s) 2 NOR[46]

Degree of asymmetry: Asymmetrical [46]

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 Multivalent (IV and VIII) in addition to II's and I's [5]

Image file

27. Chromosome distribution at anaphase I: Regular in maximum, laggards, bridges and unequal also noted [5]

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 (%): 80% [5]