Genus Datasheet

DatasheetNo. A-073.005
(Family.Genus)

DBT- Network Programme

1. Genus:*Hymenocallis* Salisb.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: AmaryllidaceaeJ. St.-Hil
- Genus: *Hymenocallis* Salisb.

Bentham and Hooker(1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Epigynae
Ordo: Amaryllideae Dumort.
Genus: *Hymenocallis* Salisb.

3. Species:

Global:63

India:1

4. Taxonomic riddles:

5. Distribution:

Global: Tropical & Subtropical America

India: South India

6. Habit and Habitat: Herb.Sunny places or in shady swamps and wet woods.

7. Economic Importance: Used as a ornamentalplant

8. DNA content range: **Methodology:**

2C

4C

9. Basic chromosome number(s):x = 10[4,12]

x= 11 [1,2,3,4]

x = 12 [1,4,12]

x = 23 [1,2,3,7,10]

10.Zygotic chromosome number(s):2n= 42[4]

2n= 44 [1,4,5,16]

2n= 46 [2,3,4,6,7,11,12,14]

2n=48 [1,5]

2n= 54[4]

2n= 65 [8]

2n=66 [3]

2n= 68 [9]

2n=69 [13]

2n= 74 [4]

11. Gametic chromosome number(s): n= 23 [4,7]

n= 34 [9]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytenechromosomes/ Neocentric chromosomes):

13. Ploidy level: Diploid[2]

Tetraploid [1]

Polyploid [9]

Secondarily balanced polyploid [3]

14. Nature of polyploidy (auto, segmental, allo, autoallo): Segmental allopolyploid [3]

15. Aberrantchromosomenumber(s) (aneuploidy,aneusomaty, polysomaty): Variant chromosome number showing2n=20+F [1], 2n=2
2n=30 [1], 2n=40 [3], 2n=42 [1], 2n=44 [3,4], 2n=46 [1,5], 2n=48 [3], 2n=50 [1,3,5], 2n=54 [1,] 2n=57 [1], 2n=58 [1], 2n=61 [3], 2n=66 [1], 2n=68 [1,3,5], 2n=7
2n=76 [1], 2n=88 [1],2n=92 [1],Aneuploidy [1],Aneusomaty[3]

16.Karyograms:[1,3,4, 7] **Meiosis:**[3,4,7,9]

17. Banding pattern(s):

18. Physical mapping of chromosomes: **GISH:**

19.Phylogenetic relationship atChromosomal; DNA level:

20. Cytogenetic mechanism(s) underlying evolution: Cytological euploidy and aneuploidy as well as chromosome repatterning evolution seem to include structural alterations like inversions and translocations, further polyploidy coupled with hybridization als important role in evolution [3]

21. Linkage map:

22. Any other information: Pollen fertility32%, 35% [3]