Genus Datasheet

Datasheet No. A-140.028 **DBT- Network Programme**
(Family.Genus)

1. Genus:*Lens* Mill.

2.Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus:*Lens*Mill.

Bentham and Hooker (1862)
Kingdom: Plantae
Division:Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: RosalesBercht. & J. Presl
Ordo: Leguminosae Juss.
Subordo: PapilionaceaeGiseke
Genus: *Lens*Mill.

3. Species:

Global: 7

India:1

4. Taxonomic riddles:4,5,57,69,70,95,96,97,98

5. Distribution:

Global: Afghanistan, Agalega, Albania, Algeria, Argentina, Austria, Azores, Balearic Is, Bangladesh, Bulgaria,Canary Is, California, Chile, China, Colombia, Corsica, Crete, Cyprus, Czech Republic & Slovakia, East Aegean Is, Ecuador, Ethiopia, Fiji, former Yugoslavia, France, Germany, Greece, Guatemala, Hungary, Idaho, India, Indonesia, Iran, Iraq, Israel, Italy, Java, Jordan, Kenya, Lebanon, Libya, Madagascar, Mauritius, Mauritius, Mayotte, Morocco, Nepal, New York, New Zealand (North), New Zealand (South), Northern Marianas, Pakistan, Papua New Guinea, Portugal, Reunion, Rodrigues, Romania, Sardinia, Saudi Arabia, Sicily, South Africa, Spain, Sri Lanka, Switzerland,Syria, Tanzania, Tunisia, Turkey in Asia, United States, Vietnam,Washington, Yemen, Zimbabwe

India: Central India and Sub-Himalayan belt or Experimental stations.

6. Habit and Habitat: Erect or climbing herbs, height ~ 11 - 45 cm.Grows inTemperate, subtropical, and tropical at higher elevations woodland, Mediterranean shrubland, grassland

7.Economic Importance:*Lens culinaris* (lentil) is a major food (pulse) crop and is the only cult the genus; also used for starch extracted from seeds, flour and dhal.Species are used as fodder, g for medicine

8. DNA content range: **Methodology**

2C(8.42 pg) [1] Flow Cytometry

2C(8.76-9.99pg)[2,3] Feulgen microdensitometer

9. Basic chromosome number(s):x=7 [4, 5, 6,7,26,88,93]

10. Zygotic chromosome number(s):2n=14[4 -14, 16, 18- 27,34,87,88,92,93]

11. Gametic chromosome number(s):n= 7 [4,6,7,11, 13, 16,19,21,25,26,27,34,91,93]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene Chromosomes/ Neocentric chromosomes):

13. Ploidy level: Diploid[4,6, 7,8,11,16,18,19,25,26,28,34,87,88,91,92,93,94]

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

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

16. Karyograms:3, 4, 5,6, 7, 8, 16, 18, 26, 29 - 37 , 39, 40, 87, 91, 92, 93

Meiosis: 4, 6, 7, 8, 11, 12, 13, 14, 16, 19, 21, 25, 26, 27, 28, 34, 91, 92, 93

17. Banding pattern(s):C banding [13], N banding[36]

19.Phylogenetic relationship atChromosomal; DNAlevel: Chromosomal level[7,13,25,33,40];

DNA level[39,48,49,50,57,58,59,60,61,66,67,69,70,75,80,82,85,86,94,95]

20. Cytogenetic mechanism (s) underlying evolution: Various species / supspecies of the genus differ in chromosome morphology. Segmental interchanges have played prominent role in the differentiation of species

21. Linkage map:[44,47,52,53,54,56,62,64,68,72,74,90]

22. Any other information: