Genus Datasheet

Datasheet No. A-140.084 (Family.Genus)

DBT- Network Programme

1. Genus:*Cicer* L.

2. Systematic position:APG IV; Bentham and Hooker:

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: LeguminosaeJuss.
Subordo: PapilionaceaeGiseke
Genus: *Cicer* L.

APG IV (2016)

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

3. Species:

Global42

India*C*. *arietinum*L.

*C. acanthophyllum*Boriss.

*C. macracanthum*Popov

*C. microphyllum*Benth

*C. nuristanicum*Kitam

4. Taxonomic riddles:[46,79]

5. Distribution:

GlobalMediterranean region, Central Asia, West Asia,North and South America

India Tropical, Subtropical and temperate regions

6. Habit and Habitat: Herbaceous, Erect, Climber, Branched, Height ~ 8 - 100cm.

7.Economic Importance: Source of dietary protein.Vitamins.Minerals. Carotenoids.Nutraceutical. Forage crop

8. DNA content range:	**Methodology**
2C(1.74 - 3.57 pg)[1,2,3]	Microdensitometer,Flow cytometry
4C(5.22 - 6.57pg)[4]	Cytophotometry

9. Basic chromosome number(s):x=8 [5 , 6, 139]

10. Zygotic chromosome number(s):2n=14[8,9,10,32]; 2n= 16[1,4,6,8,11- 38,136,137,139,140,141] 2n = 24 [39]

11. Gametic chromosome number(s):n= 8[6,11,12,13,15,18,21,22,32,36,37,40,41,137,138]

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

[1,4,6,8,...38,136,137,139,140,141,...139]

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

16. Karyograms: **Meiosis:**

1,4,6,11-19, 25,26,28,29 ,30, 32,33, 34, 36,37, 39,139,140

6,11,12,13,15,18,21,22,32,36,37, 40, 41,

137,138,141

17. Banding pattern(s):C-banding,silver staining, Chromomycin A3,Hoechst 33258,DAPI,Orcein, CMA[4,14,28,37,42]

18. Physical mapping of chromosomes:GISH:18S - 5.8S - 26S and 5S ribosomal gene familie Telomeric and SSR motifs[35];Repetitive DNA sequences [29]; Retrotransposable sequences [38]

19.Phylogenetic relationship atChromosomal; DNAlevel:

DNA level[45,46,49,52, 64,66, 79, 80, 86, 87, 89, 93, 107,142,144, 145]

20. Cytogenetic mechanism (s) underlying evolution: Apart from linear differentiation of c cytogenetic mechanism underlying evolution in the genus *Cicer* was accompanied by subtle v chromosome morphologyincluding number of nucleolar chromosomes, chromosome number a amount.

21. Linkage map:

22. Any other information: Chromosome numbers are not reported for the following tertiary gene pool species of*C.arietinum*:

*C. acanthophyllum*Boriss.

*C. macracanthum*Popov

*C. nuristanicum*Kitam

C.atlanticum

*C. incisum*ssp*serpentinica*

C. floribundum

C. floribundum var. *amanicola*

C

C. montbretti

C. balcaricum

C. baldshuanicum

C. fedtschenkoi

C. flexuosum

C. grande

C. incanum

C. korshinskyi

C. laetum

C. luteum

C. multijugum

C. paucijugum

C. pungens

C. rassuloviae

C. rechingeri

C.stapfianum

C.subaphyllum

C.tragacanthoides

C.kermanense

C.mogoltavicum

C.spiroceras