Genus Data Sheet

Datasheet No. A-045.001 **DBT- Network Programme**
(family,genus,species)

1. Genus:*Dioscorea*L

3. Systematic position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperm
- Clade: Monocot
- Order: Dioscoreales Mart.
- Family: Dioscoreaceae R. Br.
- Genus: Dioscorea L.

Bentham and Hooker (1862)
Kingdom: Plantae
Division:Phanerogams
Class: Monocotyledons
Series: Epigynae
Ordo: DioscoreaceaeR. Br.
Genus: *Dioscorea*L.

3. Species:

Global:613

India: 31

4. Taxonomic riddles:

5. Distribution:

Global: Africa, Tropical Asia, Australia, Europe, Southern America. Introduced in, Northern America and Africa

India: All over the India except dry parts.

6. Habit and Habitat: Climbing herb.Habitat ranges from grassland to forest, frequently by the edge of the forest or open area on small trees or shrubs. *Dioscoreaalata, D. bulbifera* and *D. esculenta* are commonly grown or cultivated for edible tubers.

7.Economic Importance: Ethnically important as secondary food. Edible starchy tubers and bulbils.

8. DNA content range: **Methodology**

2C=1.15- 2.40pg[18,22] Flow Cytometry[18,22]

9. Basic chromosome number(s):x=10[2,6,12,34]

10. Zygotic chromosome number(s):2n=20[3,5,8,9,11,20,25,26,28,29,32,34] 30[3,8,10,11,12] 35[10] 36[4,8,14] 40[1,2,3,4,6,8,10,11,12,13,14,15,16,18,21,22,26,28,30,33,34] 45[14]

$50^{4,8,9,10,11,12,14,15,16,21}$ $51^{8,17}$ $52^{10,17}$ 54^{8} 55^{10} $60^{1,2,5,6,7,8,11,14,15,16,17,20,21,22,31}$ $64^{8,17}$ 66^{10}
$80^{1,2,3,4,5,6,8,11,15,16,17,19,21,22,32}$ $81^{17,32}$ $90^{6,8,15,16,21}$ 95^{8} $98^{8,16}$ $99^{8,16}$ $100^{1,6,8,15,16,21}$ 138-142^{1} 140^{8} 144^{8}

11. Gametic chromosome number(s): n=$10^{3,23,25,27,29}$ $20^{2,4,6,15,25,27}$ 45^{15}

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

13. Ploidy level: Diploid[34] Tetraploid[2,6,12,22,34] Hexaploid[2, 6,12,8] Octaploid[2, 6,22]

14. Nature of polyploidy (auto, segmental, allo, autoallo): Autopolyploidy[2,26]

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Aneuploidy[34]

16. Karyograms: **Meiosis:**

17. Banding pattern(s):

18. Physical mapping of chromosomes:GISH:

19.Phylogenetic relationship atChromosomal; DNAlevel:

20. Cytogenetic mechanism (s) underlying evolution:

21. Linkage map:

22. Any other information: