Genus Datasheet

Datasheet No. G-007.005 **DBT- Network Programme**
(Family.Genus)

1. Genus: *Pinus*L.

2. 3.Systematic Position:

Christenhusz*et al.* (2011)

- Class: Equisetopsida C. Agardh
- Subclass: Pinidae Cronquist
- Order: PinalesGorozh.
- Family: PinaceaeSpreng.
- Genus:*Pinus*L.

Bentham and Hooker (1862)
Kingdom: Plantae
Division:Phanerogamia
Class: Gymnospermeae
Ordo: Coniferae
Tribus:AbietineaeEichler
Genus: *Pinus*L.

3. Species:

Global: 130

India:29

4. Taxonomic riddles:

5. Distribution:

Global: Most regions of the Northern Hemisphere

India: Himalaya

6. Habit and Habitat: Evergreen, coniferous resinoustrees, with the majority of species reaching 15–45 m (50–150 ft) tall.Native to all continents and some oceanic islands of the northern hemisphere, chiefly in boreal, temperate, or mountainous tropical regions; reaching its southernmost distribution shortly below the Equator in southeast Asia. Introduced as ornamental and timber trees in much of the southern hemisphere.

7.Economic Importance: Pines are economically important for their timber, pulp, tar, and turpentine.

8. DNA content range:	**Methodology**
2C (23.00-75.36 pg) [1, 4, 20, 22, 32, 46, 61, 90, 91, 92, 95, 96]	Flow cytometry[1, 4,20, 22, 32, 46, 61, 90, 91, 92, 95, 96]
2C (15.50-87.36 pg) [12, 13,14, 19, 63, 68, 83, 90, 90]	Feulgenmicrodensitometry[12, 13,14, 19, 63, 68, 83,

9. Basic chromosome number(s):x=12[2,3, 7,8, 12, 16, 21, 23, 24, 25, 26, 30, 31, 33, 34,35, 37, 38, 42, 43 53, 54, 55, 56, 59, 60, 62, 63, 64, 72, 73, 74, 75, 78, 79 , 81, 84, 86, 89,93]

10. Zygotic chromosome number(s):2n=24 [2, 3, 5, 7, 8, 12, 16, 21, 23, 24, 25, 30, 31, 33, 37, 38, 40, 42, 49, 52, 53, 54, 55,56, 59, 63, 73, 74, 75, 78, 79, 81, 82, 86, 89, 93] ,

48 [85, 94]

11. Gametic chromosome number(s):n=12[9, 29, 34, 48, 49, 64, 72, 75, 84]

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

13. Ploidy level: Diploid[2, 3, 5,7, 8, 9, 12, 16, 21, 23, 24, 25, 26, 29, 30, 31, 33, 34, 37, 38, 40,42, 43,44,47, 48 56, 59, 60, 62, 63, 64, 72, 73,74, 75, 78, 79, 81, 84, 86, 89,93]

Tetraploid (sporadic)[85,94]

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

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

16. Karyograms: [5, 8, 15, 23, 24, 25, 26, 30, 31, 33, 37, 40, 44, 47, 48, 49, 59, 60, 62, 63, 64, 7

Meiosis:[29, 34, 49]

GISH:

19.Phylogenetic relationship atChromosomal; DNAlevel:[56, 33, 45, 71]

20. Cytogenetic mechanism (s) underlying evolution:

21. Linkage map:[6, 10, 11,17, 36, 39, 50, 57,58, 66, 67, 69, 76, 82, 88]

22. Any other information: