

Genus Datasheet

Datasheet No. A-076.007
Programme
(Family.Genus)

DBT- Network

1. Genus: *Cocos* L.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperm
- Clade: Monocots
- Clade: Commelinids
- Order: Arecales Bromhead
- Family: Arecaceae Bercht. & J. Presl
- Subfamily: Arecoideae Burnett
- Genus: *Cocos* L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Calycinae
Ordo: Palmae Juss.
Genus: *Cocos* L.

Ordo: Arecaceae
Genus: *Cocos* L.

3. Species:

Global: 1

India: 1

4. Taxonomic riddles:

5. Distribution:

Global: Throughout tropics and warmer subtropics

India: Andaman and Nicobar Islands, South India near sea coasts

6. Habit and Habitat: Monoecious palm; grows mostly near sea coasts

7. Economic Importance: One of the most important tropical crops with a multiple of uses both local and commercial.

8. DNA content range:

2C (5.59 pg/ 5467 Mbp^{Dolezel et al., 2003/}

2723.73 Mbp per haploid set)¹

2C (5.55 pg)¹

Methodology:

Flow cytometry¹

Flow cytometry¹

2C (5.966 pg/ 5.757 Gbp)²

Flow cytometry²

4C (14.19 pg)³

Feulgen microdensitometry

9. Basic chromosome number(s): $x = 16^{6, 48}$

10. Zygotic chromosome number (s): $2n = 32^{3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19}$

11. Gametic chromosome number (s): $n = 16^{4, 7, 9, 11}$

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/ N chromosomes):

13. Ploidy level: Diploid^{1, 2, 12, 18, 19}

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

15. Aberrant chromosome number(s) (aneuploidy, aneusomy, polysomy): Somatic cells chromosomes number $2n = 18^9$; Aneuploid cells with varying chromosome $2n = (18-24)^{18}$; Divided endosperm showing 96, 192 chromosomes in addition to $3n = 48^{12}$

16. Karyograms:^{9, 19}

Meiosis:

17. Banding pattern(s):

18. Physical mapping of chromosomes:

GISH:

19. Phylogenetic relationship at Chromosomal; DNA level: DNA level^{32, 49, 50, 51, 52}

20. Cytogenetic mechanism (s) underlying evolution

