

Genus Datasheet

Datasheet No. A-027.001
(Family.Genus)

DBT- Network Programme

1. Genus: *ACORUS* L.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Acorales Mart.
- Family: Acoraceae Martinov
- Genus: *Acorus* L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Nudiflorae
Ordo: Aroideae Arn.
Genus: *Acorus* L.

3. Species:

Global: 2

India: 2

4. Taxonomic riddles: Yes ^{42,46}

5. Distribution:

Global: Asia, North America

India: Throughout India

6. Habit and Habitat: Rhizomatous geophytes. Grows on the margins of river backwaters, canal margins and the margins of ponds and lakes.

7. Economic Importance: It is an important medicinal and aromatic plant.

8. DNA content range:

C- value

2C (0.80 – 1.3 pg) ¹

Methodology:

Methodology

Flow cytometry

¹

9. Basic chromosome number(s): $x=7$ ²

$x=9$ ^{2,23,40,57}

$x=10$ ^{5,7}

$x=11$ ^{23,57}

$x=12$ ^{21,23,29,56}

$x=13$ ⁵⁶

10. Zygotic chromosome number (s):

$$2n=14^2$$

$$2n=18^{2,3,4}$$

$$2n=21^2$$

$$2n=22^{4,36,38}$$

$$2n=24^{4,5,6,7,8,9,10,11,12,19,39,51,52}$$

$$2n=27^2$$

$$2n=33^{13}$$

$$2n=34^{13}$$

$$2n=35^{14}$$

$$2n=36^{5,7,8,9,12,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32}$$

$$2n=42^{35}$$

$$2n=44^{36,37,38,39}$$

$$2n=45^{40}$$

$$2n=48^{5,7,9}$$

$$2n=54^{4,22}$$

$$2n=66^{39}$$

11. Gametic chromosome number (s): $n=9^{41}$

$$n=12^{41,53,54,56}$$

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

13. Ploidy level: Diploid 2,5,7,10,12

Triploid 7,12,21,26,29,33

Tetraploid 7,22,39

Pentaploid 40

Hexaploid 22,39

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

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

Aneuploidy 13,14

16. Karyograms: $^2, 10$

Meiosis: 41,53,54,56

20. Cytogenetic mechanism (s) underlying evolution: Both aneuploidy and euploidy have play role in evolution of the genus ^{2,10}

21. Linkage map:

22. Any other information: High percentage of sterile pollens ¹³

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