Species Datasheet

Datasheet No. A-078.001.006 **DBT- Network Programme**
(family.genus.species)

1.Taxon:
Species**:** *Commelina diffusa* Burm.f.
Subspecies**:**
Variety**:**
Cultivar**:**
Hybrid**:**

Image file

2. Synonyms: *Commelina agrarian* Kunth., *C.agraria* var. *prostrata* (Kunth) Seub., *C. agraria* var. *repens* Seub., *C. aquatica* J.K.Morton, *C.caespitose* Roxb., *C.cajennensis* Kunth, *C.canariensis* C.Sm., *C. cayennensis* Rich., *C. communis* Engelm. ex Kunth, *C. communis* Walter, *C. diffusa* subsp. *aquatica* (J.K.Morton) Ogwal, *C. diffusa* var. *cordispatha* Rohweder, *C. diffusa* subsp. *diffusa*, *C. diffusa* var. *diffusa*, *C. diffusa* f. *glabra* (G.Mey.) Rohweder, *C. diffusa* var. *major* Kayama, *C. formosa* Graham, *C. glabra* G.Mey., *C. gracilis* Ruiz &Pav., *C. gracilis* var. *glabrata* C.Presl, *C. longicaulis* Jacq., *C. nudiflora* f. *agraria* (Kunth) C.B.Clarke, *C. nudiflora* var. *glabrata* (G.Mey.) C.B.Clarke, *C. nudiflora* var. *sellowiana* (Kunth) Hicken, *C. nudiflora* var. *werneana* (Hassk.) C.B.Clarke, *C. obtusifolia* Vahl, *C. ochreata* Schauer, *C. pacifica* Vahl, *C. pilosa* Pers., *C. pilosula* Rich., *C. prostrate* Poepp.ex Kunth, *C. prostrate* Kunth, *C. sellowiana* Kunth, *C. werneana* Hassk.

3. Systematic position:

APG IV (2016)
- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Commelinales Mirb. ex Bercht. & J. Presl
- Family: Commelinaceae Mirb.
- Genus: *Commelina* L.
- Species: *C. diffusa* Burm. f.

Bentham and Hooker (1862)
Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Coronarieae
Ordo: Commelinaceae Mirb.
Genus: *Commelina* L.
Species: *C. diffusa* Burm. f.

4.Distribution:

Global: Arabian Peninsula Yemen, Argentina Northwest, Arkansas, Bangladesh, Bermuda, Brazil, Burkina, Cameroon, Cape Provinces, Caribbean Bahamas, Central African Republic, Central America Belize, China Southeast, China China South-Central, Colombia, Congo, Costa Rica, Cuba, Delaware, Dominican Republic, East Himalaya, East Tropical Africa Kenya, Eastern Asia Japan, Ecuador, El Salvador, Equatorial Guinea, Florida, Gabon, Galápagos, Gambia, Georgia, Ghana, Guatemala, Guinea, Guinea Bissau, Gulf of Guinea Island, Guyana, Hainan, Haiti, Honduras, India, Andaman Island, Ivory Coast Jamaica, Kansas, Kentucky, Korea, KwaZulu-Natal, Leeward Island, Liberia, Louisiana, Macaronesia Cape Verde, Malawi, Malaya, Malesia Jawa, Mali, Maryland, Mauritius, Mexico, Mississippi, Missouri, Mozambique, Myanmar, Namibia, Nansei-shoto, Nepal, New Jersey, New York, Nicaragua, Nicobar Island, Niger, Nigeria, Niue, North Carolina, North-Central U.S.A. Illinois, Northeast Tropical Africa Chad, Northern Provinces, Guiana, Ohio, Oklahoma, Panama, Paraguay, Pennsylvania, Peru, Philippines, Pitcairn Island, Puerto Rico, Rwanda, Senegal, Seychelles, South Carolina, South Tropical Africa Angola, South-Central Pacific Marquesas, Texas, Alabama, Southern Africa Botswana, Southern South America Argentina Northeast, Southwestern Pacific Fiji, Sri Lanka, Sudan, Suriname, Swaziland, Taiwan, Tanzania, Tennessee, Thailand, Tibet, Togo, Tonga, Trinidad-Tobago, Tuamotu, Uganda, Venezuela, Venezuelan Antilles, Vermont, Vietnam, Virginia, Wallis-Futuna Island, West Himalaya, West Tropical Africa Benin, West Virginia, West-Central Tropical Africa Burundi, Western Indian Ocean Madagascar, Western South America Bolivia, Windward Island, Zaire, Zambia

India: Andhra Pradesh, Andaman and Nicobar Islands, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Meghalaya, Tamil Nadu, West Bengal

5.Indigenous/Exotic/Endemic;Cultivated/Wild: Wild

6.Threat Status:

IUCN: Least Concern

BSI:

7.Habit and Habitat: Herb, pantropical and warm temperate, chiefly found along the roadside, margin of pools, along railway tracks, Ghats, along the forest margins, in paddy and rice fields

8.Life Form: Therophyte

9.Economic Importance:

10. Probable Progenitor of:

11.DNA

C-value	**Methodology:**
(2C: 6.7-16.9pg.; **4C:** 13.4-33.8pg.)[35]	Feulgen Microdensitomitry (Fe)[35]

12.Basic chromosome number(s):x=5[2]14[2]15[29,35,37,38,39,40,44,47,54]

13. Zygotic chromosome number(s):2n=18[61]28[2,3,27,41]30[2,3,8,11,12,19,28,29,30,35,38,39,44,47,62,63,64]56[27]60[2,3,11]72[39,60]90[35,40]ca100[52]120[44]

14. Gametic chromosome number(s):n=15[2,3,11,29,31,37,38,54]30[2,3,31]45[40]

15.Specialized chromosomes (B chromosomes/Sex chromosomes/polytene chromosomes/Neocentric chromosomes):

Image file

16.Ploidy level: Diploid[2,11,35,37,38,39,44,47,54]Tetraploid[2]Hexaploid[35,40]

Image file

17.Agametoploidy:

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

19.Genomic formula:

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

21.Somatic chromosomes:

Karyotype: Mostly submetacentric and subtelocentric[30,39], (38m+44sm+8st)[40]

Chromosome size: Medium size[30,39]

NOR chromosome(s):4 NOR[40], 2NOR[39]

Degree of asymmetry: Asymmetrical[40]

Image file

22. Banding pattern(s):

Image file

23. Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization

Image file

24.Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26.Chromosome associations:

Female meiosis:

Male meiosis:15 II[2,11,37]

Image file

27.Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level:

Image file

DNA level

29.Any other information (Apomixis; Inversion; Male sterility;Pollen grain mitosis; Pollen stainability;Translocations etc):

Pollen stainability(%): 98.27[37]

Translocations[38]