

Species Datasheet

Datasheet No. A-098.001.053
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Cyperus rotundus* L.

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file

2. Synonyms: *Chlorocyperus rotundus* (L.) Palla, *C. salaamensis* Palla, *C. agrestis* Willd. ex Spreng. & Link, *Cyperus arabicus* Ehrenb. ex Boeckeler, *C. badius* var. *inconspicuus* (Nyman) Nyman, *C. bicolor* Vahl, *C. bifax* C.B. Clarke, *C. bulbosostoloniferus* Miq., *C. comosus* Sm., *C. disruptus* C.B. Clarke, *C. elongatus* Sieber ex Kunth, *C. herbicavus* Melliss, *C. hexastachyos* Rottb., *C. hildra* Poir., *C. inconspicuus* Gennari, *C. laevis* Steud., *C. leptostachyus* Griff., *C. longus* Boeckeler, *C. merkeri* C.B. Clarke, *C. micreilema* Steud., *C. nubicus* C.B. Clarke, *C. ochreoides* Steud., *C. officinalis* Nees ex Godr., *C. oliganthus* Gand., *C. olivaris* O. Targ. Tozz., *C. olivaris* var. *brevibracteatus* Le Grand, *C. pallescens* Boiss., *C. patulus* M. Bieb., *C. platystachyus* Cherm., *C. procerulus* Nees., *C. proteinolepis* Boeckeler, *C. pseudovariegatus* Boeckeler, *C. purpureovariegatus* Boeckeler, *C. radicosus* Sm., *C. retzii* Nees, *C. rotundus* f. *contractus* Kük., *C. rotundus* f. *depallescens* Ekman & Kük., *C. rotundus* f. *latifolius* Kük., *C. rotundus* f. *latimarginatus* Kük., *C. rotundus* retzii Kük., *C. rotundus* subsp. *comosus* (Sm.) K. Richt., *C. rotundus* subsp. *divaricatus* Lye, *C. rotundus* subsp. *inconspicuus* (Nyman) K. Richt., *C. rotundus* subsp. *merkeri* (C.B. Clarke) Kük., *C. rotundus* subsp. *tuberosus* (Rottb.) Kük., *C. rotundus* var. *acutus* Boeckeler, *C. rotundus* var. *amaliae* C.B. Clarke, *C. rotundus* var. *brevibracteatus* (Le Grand) Husn., *C. rotundus* var. *carinalis* Benth., *C. rotundus* var. *carinatus* F.M. Bailey, orth. var., *C. rotundus* var. *centiflorus* C.B. Clarke, *C. rotundus* var. *disruptus* (C.B. Clarke) Kük., *C. rotundus* var. *elongatus* Boeckeler, *C. rotundus* var. *hydra* (Michx.) A. Gray, *C. rotundus* var. *macrostachyus* Boiss., *C. rotundus* var. *major* Parl., *C. rotundus* var. *nubicus* (C.B. Clarke) Kük., *C. rotundus* var. *pallidus* Benth., *C. rotundus* var. *platystachyus* Bojer ex C.B. Clarke, *C. rotundus* var. *procerula* C.B. Clarke, *C. rotundus* var. *quimoyensis* L.K. Dai, *C. rotundus* var. *salsolus* C.B. Clarke, *C. rotundus* var. *spadiceus* Boeckeler, *C. rotundus* var. *taylorii* (C.B. Clarke) Kük., *C. rotundus* var. *tetrastachyos* (Desf.) Trab., *C. rubicundus* Willd. ex Link, *C. rudioi* Boeckeler, *C. rudioi* var. *minor* Boeckeler, *C. stoloniferus* var. *pallidus* Boeckeler, *C. taylorii* C.B. Clarke, *C. tenuifolius* Walp., *C. sphalm*, *C. tetrastachyos* Desf., *C. tuberosus* Rottb., *C. viridis* Roxb. ex C.B. Clarke, *C. weinlandii* Kük., *C. yoshinagae* Ohwi, *Pycreus rotundus* (L.) Hayek, *Schoenustuberosus* Burm. f.

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperm
- Clade: Monocots
- Clade: Commelinids
- Order: Poales Small
- Family: Cyperaceae Juss.
- Genus: *Cyperus* L.
- Species: *C. rotundus* L.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledones
Series: Glumaceae
Ordo: Cyperaceae Juss.
Genus: *Cyperus* L.
Species: *C. rotundus* L.

4. Distribution:

Global: Sri Lanka, Mauritius, Africa, Australia and India

India: Peninsular India, Central and East India

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

6. Threat Status:

IUCN

BSI

7.Habit and Habitat:Herb.Moist places in cultivated fields, along ponds and canals, muddy banks of rivers, moist humous soil; a troublesome weed in cultivated fields.

8.Life Form:

9.Economic Importance:Used in local medicines.

10. Probable Progenitor of:

11.DNA

C-value

2C:0.9pg⁴⁹; 4C:1.8pg⁴⁹

Methodology:

Feulgen Microdensitometry⁴⁹

12.Basic chromosome number(s): $x=8^{1,2,6,18,9,18}$

13. Zygotic chromosome number(s): $2n=16^{44,36,46,84,49,65,61,108,9,11,35,45,152,8,23}$

14. Gametic chromosome number(s): $n=40^{1,20,42,2,3,4,48,3,5,6,50,2,3,14,18,25,52,2,54,2,9,11,55,2,56,1,20,58,2,64,18,27,66,2,69,1,21,76,23,80,2,ca100}^{30}$

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

Image file

16.Ploidy level:Decaploid^{1,2}; Do-decaploid^{2,18}; Tetra-Decaploid^{1,2}; Hexa-Decaploid^{1,2,18}; $20X^2$

Image file

17.Agametoploidy:

18.Nature of polyploidy (auto, segmental, allo, autoallo):Intraspecific Polyploidy¹

19.Genomic formula:

20.Aberrant chromosome number(s)(aneuploidy, aneusomaty, polysomaty):Aneuploidy^{1,2,18}

21.Somatic chromosomes:

Karyotype:

Chromosome size:

NOR chromosome(s):

Degree of asymmetry:

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: 42II^2 ; $50\text{II}^{2,18}$; 52II^2 ; $54\text{II}^{2,11,31}$; 55II^2 ; 56II^2 ; 58II^2 ; 64II^{18} ; 66II^2 80II^2

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; Translocation etc):