

Final Species Datasheet JamU+CalU+SUK-Phase I

Datasheet No. A-416.011.001
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Centella asiatica* (L.) Urb.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms: *Centella boninensis* Nakai ex Tuyama, *C. coriacea* Nannf., *C. glochidiata* (Benth.) Drude, *C. hirtella* Nannf., *C. tussilaginifolia* (Baker) Domin, *C. ulugurensis* (Engl.) Domin, *C. uniflora* (Colenso) Nannf., *Trisanthus cochinchinensis* Lour., *Chondrocarpus asiaticus* Nutt., *C. triflorus* Nutt., *Glyceria asiatica* Nutt., *G. triflora* Nutt., *Hydrocotyle abbreviata* A.Rich., *H. abyssinica* Gand., *H. artensis* Montrouz., *H. asiatica* L., *H. asiatica* var. *monantha* F.Muell., *H. brasiliensis* Scheidw., *H. brevipedata* St.-Lag., *H. brevipes* DC., *H. dentata* A.Rich., *H. ficarifolia* Stokes, *H. ficarioides* Lam., *H. glochidiata* Benth., *H. hebecarpa* DC., *H. inaequipes* DC., *H. indivisa* Banks & Sol. ex Hook.f., *H. lunata* Lam., *Hydrocotyle lurida* Hance, *H. nummularioides* A.Rich., *H. pallida* DC., *H. reniformis* Walter, *H. sarmentosa* Salisb., *H. sylvicola* Cordem., *H. thunbergiana* Spreng., *H. tussilaginifolia* Baker, *H. ulugurensis* Engl., *H. uniflora* Colenso, *Neosciadium glochidiatum* (Benth.) Domin

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicot
- Clade: Asterids
- Clade: Campanulids
- Order: Apiales Nakai
- Family: Apiaceae Lindl.
- Genus: *Centella* L.
- Species: *C. asiatica* (L.) Urb.

Bentham and Hooker (1862)

- Kingdom: Plantae
- Division: Phanerogamia
- Class: Dicotyledons
- Subclass: Polypetalae
- Series: Calyciflorae
- Cohors: Umbellales
- Ordo: Umbelliferae Juss.
- Genus: *Centella* L.
- Species: *C. asiatica* (L.) Urb.

4. Distribution:

Global: Angola, Bangladesh, Belize, Benin, Borneo, Botswana, Burkina, Burundi, Cabinda, Cambodia, Cameroon, Cape Provinces, Cape Verde, Caprivi Strip, Central African Repu, Chad, Chatham Island, China, Comoros, Congo, East Himalaya, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Free State, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Gulf of Guinea Island, India, Iran, Ivory Coast, Japan, Java, Kenya, Korea, KwaZulu-Natal, Laos, Lesotho, Lesser Sunda Island, Liberia, Madagascar, Malawi, Malaya, Mali, Mauritania, Mauritius, Mozambique, Myanmar, Namibia, Nansei-shoto, Nepal, New Caledonia, New South Wales, New Zealand North, New Zealand South, Nicobar Island, Niger, Nigeria, Northern Provinces, Ogasawara-shoto, Pakistan, Philippines, Queensland, Rodrigues, Rwanda, Réunion, Samoa, Saudi Arabia, Senegal, Sierra Leone, Socotra, Solomon Island, Somalia, Sri Lanka, Sudan, Swaziland, Taiwan, Tanzania, Thailand, Togo, Tonga, Transcaucasus, Uganda, Vietnam, Wallis-Futuna Island, Yemen, Zambia, Zaïre, Zimbabwe, Ascension,

Chagos Archipelago, Colombia, Cook Island, Hawaii, Niue, Norfolk Island, Seychelles, Society Island, St.Helena, Tristan da Cunha

India: Throughout India

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

6. Threat Status:

IUCN

BSI

7. Habit and Habitat: Herb; along stream banks and other water courses

8. Life Form:

9. Economic Importance: Used as medicinal herb

10. Probable Progenitor of:

11. DNA

C-value

Methodology

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n = 18^{1,2,3,4,5,6,7,8,9,10,11}$; $2n = 22^{12,13}$; $2n = 54^{14}$

14. Gametic chromosome number(s): $n = 9^{4,9,15,16,17}$; $n = 36^{15}$

15. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes): Presence of (1-2) B-chromosomes in plants growing in higher altitudinal area as well as subtemperate zones and halophytic zones of plains in addition to their normal chromosomes¹⁰, 2 B-chromosomes¹³

Image file

16. Ploidy level:

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: Majority metacentric chromosomes⁸

Chromosome size: $1.5-2.6\mu m^8$

NOR chromosome(s): $4NOR^8$

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

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level^{18,19,20}

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