

*Model of
Digital Database*

DIGITAL DATABASE

A digital database of 465 angiosperm plant species belonging to 74 families has been prepared. The list of plant species along with the corresponding families is given in Table (19). The plants are classified according to Bentham and Hooker's classification. The database contains the detailed morphological, ecological features and in brief medicinal uses. In addition, high resolution digital photographs are being clubbed with the database. A model of the database prepared is illustrated.

The main page of individual plant contains its correct botanical name along with author citation and classification of plant as followed by Bentham and Hooker. The top of the page contains three separate links giving information about taxonomic description, ecology and medicinal uses of that particular plant. The taxonomic detail contains information about habit, habitat, and detailed morphology. Relevant photographs of plant habit, flower and fruit are provided in thumbnails form followed by respective titles. The photographs get magnified by double clicking it. The ecological details include the current status of the plant in study area, distribution, major associates, phenological period and the duration of flower opening. The medicinal uses mentioned in brief names of diseases for the remedy of which the plant is useful. All the linked pages on the top are provided with home link, which is directly hooked up to the main search page with family and botanical names.

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Gloriosa superba L.

Kingdom - Plantae
 Phylum - Angiospermae
 Class - Monocotyledonae
 Series - Coronarieae
 Family - Liliaceae

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Taxonomic description

Gloriosa superba L.

Synonym

Methonia superba Dalzell & Gibson

Vernacular Name - Vadhavadiyo, Vachanag

Habit -  A Climbing annual herb, climbing with the help of leaf tendril, glabrous; stem reaching 2-3 m in length; rootstock of cylindric tubers 15-30 cm long; roots fibrous.

Leaves -  Leaves sessile, opposite or ternately whorled, 7-16 cm long, ovate-lanceolate, acuminate, tip ending in a tendril-like spiral, base cordate.

Flowers -   Hermaphrodite, regular, axillary, solitary, large, showy, red-orange red, with yellow shades; pedicles 7-10 cm long, deflexed; flower remains open for about 7 days. Initially the flower is shaded with yellow and orange. The old the flower gets, the color gets changed to red.

Perianth - Perianth petaloid, persistent; segments 6, 6-8 cm long, linear-lanceolate, with crisply waved margins.

Stamens - Stamens 6, hypogynous; filaments filiform, 3-4 cm in length; anthers linear, 1.0-1.2 cm in length, dorsifixed, versatile, dehiscent extrosely.

Ovary - Ovary 3-celled; ovules numerous in each cell; style filiform 4.5-5.2 cm in length, deflexed, with 3 subulate arms; stigmatose within.

Fruit -  Fruit a capsule, septicidal, 4-6 cm in length, linear-oblong.

Seeds - Seeds many, sub-globose, 4-7 mm in length, dark brown to black in color.

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ECOLOGY

Density Status: Rare

Distribution: Found growing as a climber in agricultural and roadside hedges. The plant is seen climbing taking support of various shrubby plants like *Capparis aphylla*, *Zizyphus nummularis*, *Euphorbia nivulia*, *Clerodendrum phlomidis* and also climbing the iron fence of hedges.

Phenology: Life cycle of the plant begins in the month of July. Flowering and fruiting are observed in the months of August to October. Life cycle of the plant terminates by November.

Major Association: No specific major associates noted.

Flower Opening Duration: Flower blooms for entire day, rather it remains open continuous for around 7 days.

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Uses

Roots used for the cure of parasitic skin diseases, piles, leprosy, malignant ulcers and obesity.



Magnified view of habit and leaf of *Gloriosa superba*



Magnified view of flowers of *Gloriosa superba*



Magnified view of fruit of *Gloriosa superba*