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## MAT SEDGE – A PRELUDE

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**C**yperaceae is one of the largest genera in the sedge family. There are 650 - 750 species of it worldwide. Out of these, 80 species occur in India. Many species thrive and regarded as weeds in agricultural systems, although they have considerable economic importance because they provide food, fodder, fuel, medicine, materials for weaving, construction and ingredients for perfumery.

Sedges can now be grown in some tropical regions for use in mat and basket weaving. They are widely employed in the thatching, fencing, and rope-making purposes. Typically, sedge culms are used to make floor mats and wall hangings. More specifically, *C. articulatus*, *C. corymbosus*, *C. iria*, *C. malacensis*, and *C. pangorei* are the major resources of mat sedges. *C. pangorei*, formerly known as *C. tegetum*, *C. dehiscentis*, is exclusively utilized to make the renowned Pathamadai silk and superfine mats.

### Special Features of Matsedge

*Cyperus pangorei* is a perennial, grass-like plant with short, creeping rhizomes. The plant can thrive a wide range of agro-climatic conditions and is found in marshy areas, particularly in Eastern and Southern parts of India. The plant is able to withstand extreme conditions like prolonged submergence in water and chronic drought conditions. *Cyperus pangorei* is a widely distributed species without any known threats. The plant is commonly used to produce high quality mats in India, where it is especially famous for producing 'Pathamadai' mats in southern India.

### Need and Importance

In this species culms are more edible part and used to weave screen and sleeping mats. It forms a clump of stout culms that are 50 – 90 cm tall. The culms are harvested and split into two or three species and then woven into mats. The mat manufacturing industry still

exists in a few districts of Tamil Nadu, West Bengal and Kerala, but it needs to be expanded to other regions of India, especially for the benefit of rural residents who lack resources through income generation schemes. The aged members of a farmer's family, regardless of sex, typically weave mats and can earn a net income.

### **Cultivation Practices**

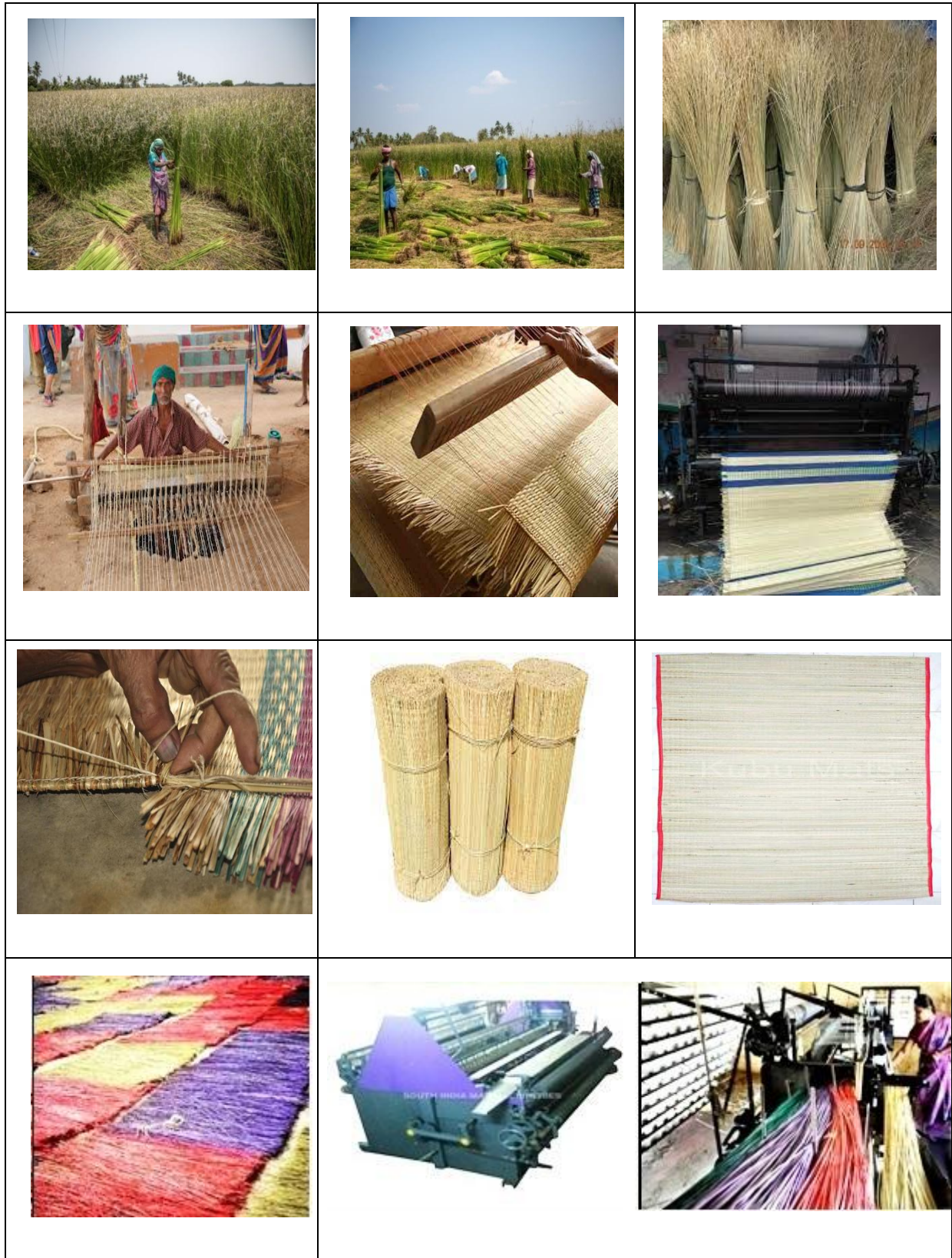
The best soil types for growing this species are heavy clay soil and canal irrigated areas. Rhizomes are the propagating material for cultivation of this *Cyperus* species. The field is ploughed and puddled like it would be for rice cultivation, and then rhizomes are sown in the field under submerged condition. For this crop, weed control is crucial upto 1 month and no particular fertilizer is advised. For obtaining good yield, the field should be irrigated at 10 days once with stagnated condition (15 cm water level). Even though it has a unique trait that allows it to tolerate a month of constant drought, still it needs additional water. It will mature within six month of sowing and attain 5 to 6 feet height. Flower initiation serves as an index of crop maturity.

This crop grows as a ratoon crop for 5-10 years based on the soil fertility status and good agricultural practices. The major advantages of this crop cultivation are less management concern than others. There are no pest issues, only root rot disease might develop under extreme conditions. The continuous ratoon crop will thereafter experience stunted growth and linear stem growth in the absence of any nutrient supply. These are a few shortcomings of this crop.

### **After Cultivation**

When the crop reached maturity, it will be harvested by sickle, leaving 5 cm of the plant above ground portion for next crop. After harvest, the stem/culm splits into 2 parts in the field, with the top portion being trimmed along with leaves. The culms are dried in the field itself for 3 days to ensure complete drying without moisture. The dried culms are then bundled according to equal height. These bundles are exported for mat industry. The bundles are graded by length/ height of the culms and used for weaving in the mat industry. The culms are stained with appropriate colours and dried under shade to create multicoloured mats. Nowadays, weaving operations are carried out by machines, mat edges are rectified by scissors and the mat is stitched with cloth to make a suitable mat for use.

**Fig 1: Mat Manufacturing from Sedge (Korai)**





### Conclusion

It may conclude that, *Cyperus* species are regarded as weeds in agricultural systems, although they have beneficial and economic importance for cultivation.

### References

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