



**SHORT COMMUNICATION**

**WEED FLORA OF LOW LAND RICE FIELDS OF LAKHIMPUR DISTRICT,  
ASSAM AND ITS ECONOMIC SIGNIFICANCE**

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**ABSTRACT**

A total of 16 different species belonging to 12 families of angiosperms were found to occur most frequently in the low land rice fields of the district of Lakhimpur, Assam. Among these 8 species were utilized by the native people for food and medicinal purposes as well as other household usage. *Ipomoea aquatica*, *Eichhornia crassipes* and *Drymaria cordata* grow more profusely in comparison to other weeds.

Rice is the principal food source of Indian people and is extensively cultivated all over the country. Summer rice is infested with a multitude of weeds belonging to different categories as well as families. Their infestation primarily constrain rice production by reducing grain yield. In some parts of the world, these unwanted plants are spreading at an alarming rate, which has become a serious global matter because of financial losses to the farmers, traders and other related departments. Further, there emerges a competition between the crops grown in low land areas and the weeds, resulting in considerable loss in yield of crops. However, some of these plants have tremendous economic potential since they serve as food and medicine as well as improve soil fertility of cultivated lands (Venkataraman & Goyal 1969, Aiyer 1972). The influence of weeds in the growth and yield of rice crop has been reported by Manivasagaperumal et al. (2005). The district of Lakhimpur, a major rice growing area of Assam, is basically a low land and the rice crop is heavily infested by a large number of weeds thereby causing great inconvenience to cultivators. The present investigation aims at the survey of the major weed flora of the rice fields of the district and evaluating their economic potential.

The investigation was conducted adopting the methodology of Jain (1989). Information was collected from one or two local assistants who had a good knowledge about the people interested in kitchen gardens in different localities of the district. Information on the perception of plants was collected on the basis of structured questionnaire with the growers, the Head of the village, other senior persons of the locality having wide knowledge of the plant species and their traditional usage and through personal observations. The queries were made as per plan suggested by Jain & Goel (1987). The collected plant species were enumerated in alphabetical sequence, then with family, local name, parts of the plant used and their economic potential. The works of Chopra et al. (1969), Kaushik & Dhiman (2000) and Sarma (2002) were referred for taxonomic identification and economic importance.

The survey of the rice fields of Lakhimpur district during the year 2005-06 revealed a total of 16 different species, belonging to 12 families of weeds encountered most frequently in the areas of cultivation (Table 1).

A total of eight species of the angiospermic flora identified in the rice fields are utilized by the native tribes for various purposes. *Ipomoea aquatica* is extensively utilized by the native people for

Table 1: Common varieties of low land weed flora in the rice fields of Lakhimpur district, Assam.

Species	Local Name	Family	Phenology	Usage
<i>Boerhavia diffusa</i> L.	Pononua	Nyctaginaceae	Feb.-Nov.	Root extract is used as medicine
<i>Cyperus flavidus</i> Retz.	Muthabon	Cyperaceae	Jan.-Mar.	Cattle feed
<i>Cyperus pilosus</i> Vahl. Enum.	Jengbon	Cyperaceae	Oct.-May	Cattle feed
<i>Centella asiatica</i> L.	Bor manimuni	Apiaceae	Jan.-April	Leaf juice is used for medicine
<i>Drymaria cordata</i> Willd.	Lajjabori	Caryophyllaceae	Oct.-March	Stem & leaves used as vegetable
<i>Eichhornia crassipes</i> Solm.	Panimeteka	Convolvulaceae	April to Sept.	Used as fertilizer in potato crop
<i>Eleocharis spiralis</i> Br.	Salibon	Cyperaceae	Nov.-March	No significant use
<i>Ipomoea aquatica</i> Forsk.	Kolmou	Convolvulaceae	Feb.-Nov.	Widely used as vegetable
<i>Jussiaea repens</i> Linn.	Kesheru	Onagraceae	Dec.-Feb.	No significant use
<i>Lemna minor</i> Linn.	Sorupuni	Araceae	April-July	Used as fish feed
<i>Nasturtium indicum</i> DC.	Bonsarioh	Brassicaceae	Dec.-Jan.	No significant use
<i>Pistia stratiotes</i> Linn.	Borpuni	Araceae	April - July	Fish feed
<i>Sphenoclea zeylanica</i> Gaertn.	Panileheti	Sphenocleaceae	June -Aug.	Common vegetable
<i>Trapa bispinosa</i> Linn.	Singori	Trapaceae	Oct.-Mar.	Fruit is edible
<i>Typha latifolia</i> Linn.	Leseri	Typhaceae	Oct.-Mar.	Leaves are used in the manufacture of baskets, cots, etc., Pollens are edible
<i>Wolffia arrhiza</i> Wim.	Hengulbon	Lemnaceae	Nov.-Feb.	No significant usage

food and medicine. The fruit of *Trapa bispinosa* is a popular food item. Three species namely, *Eleocharis spiralis*, *Cyperus pilosus* and *C. flavidus* are good cattle feeds. The leaves of *Typha latifolia*, occurring in the cultivated lands during the months from October to March, are widely used by the local people for the manufacture of baskets, cots and a number of other household items.

However, in spite of the utility of these plants by the local people, they sometimes overgrow the cultivated lands and hamper crop growth causing great inconvenience to the cultivators and farmers. The extensive growth of *Eichhornia crassipes*, *Lemna trisulea* and *Pistia stratiotes* in the water bodies during summer season causes serious damage to the crop productivity. This is a serious problem and specific attention must be given for eradication of the undesired and un-utilizable flora from the crops to avoid loss in productivity.

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