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Short Communication

PARKIA ROXBURGHII — A USEFUL TREE OF NORTH-EASTERN INDIA

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The genus *Parkia* is known to have 40 species widely distributed in tropical parts of the world, only 3 species occur in India (Willis, 1982). A member of Leguminosae sub-family Mimosaceae, it is popularly known as tree bean. *Parkia roxburghii* G. Don. commonly grows in backyard of houses, *jhums* and forests in Mizoram, Nagaland, Manipur, Meghalaya as well as in forests of Cachar, North Cachar Hills and Sibsagar of Assam (Kanjilal *et al.*, 1938). It usually grows wild in plains and hills upto 500 m above sea level. It is known as **Khorial** and **Manipur- urohi** in Assam; **Zongta** in Mizoram; **Yongchak** in Manipur; **Aoelgap** in Garo Hills; **Barri-phang** in Cachar and **Unkam-pinching** in Nagaland. In Manipur, nine types of tree bean differing in seed size, seeds per pod, dry matter (%), specific gravity and taste, on the basis of organoleptic test were identified (Meitei and Singh, 1990). These are **Nungsiacharu, Kangchup, Thangmani, Kharum, Kangpokpi, Taothong, Narankonjin, Jiri** and **Tamenglong.**

Tree bean grows 20 to 30 m tall with spreading branches, having white to brown or light-grey bark, spotted white. Bipinnate leaves are 20-40 cm long, rachis bearing 12-30 pairs of pinnae with 30-80 pairs of leaflets of size 0.6-1.2 cm × 0.1-0.2 cm. The pear shaped flower heads are borne on 20-30 cm long peduncle. Flowers yellowish white, trimorphous - neutral at the base of club, male in the middle and female at the apex. Pods (3 to 5) remain suspended on 10-12 cm long stalks and are of 20-36 × 3.5-4.2 cm in size, containing 12-20 seeds. Seeds are ovoid, 1.9-2.1 cm × 0.9-1.2 cm, enclosed in hard testa.

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Food value

The strong smelling tender pods are cooked as vegetable. The seeds from mature pods are also eaten as *dal* or *chutney* after roasting. The immature seeds, the young leaves and the fleshy part of the flower stalk may be eaten as vegetable and half ripe pods are occasionally pickled. The chemical analysis of immature pods showed 72.1 per cent water, 1.02 per cent fat, 7.7 per cent fibre, 12.68 per cent protein, 3.5 per cent carbohydrates and 3.0 per cent mineral (ash) content. The vitamin C is 7.38 mg per 100 g of fresh weight basis. The nutritional values of immature pods indicated that these are a good source of protein and vitamin C.

Medicinal value

The seeds as well as tender pods are known to cure stomach disorders and regulate liver function. Pods pounded in water are used in washing the head and the face (Burkill, 1935; Quisumbing, 1951). Bark and leaves are used in making lotions for skin diseases and ulcers. Fomentation of decoction of leaves to the rheumatic affected parts is beneficial.

Fuel value

It is a good fuel wood, burning slowly and completely.

Industrial raw material

It gives soft wood, easy to saw and can be worked to give a good finish. It is used in making boxes, show pieces etc. The bark contains 6-15 per cent tannins and is reported to be useful in tanning industry. The wood can also be used as a source of paper pulp (Wlth India, 1966).

Tree bean in agro-forestry

Tree bean is a fast growing species and has the capacity to fix nitrogen as well. It can produce 10 to 25 cubic meter of biomass in 10-15 years. It had no adverse effects on grain yield of soybean and linseed when grown in combination with them. It is also useful as a shade tree in tea plantations (Dhyani and Chauhan, 1990).

Ornamental value

It is usually grown as an ornamental tree in parks and as avenue tree alongside roads.

The future research thrust should be on reducing fibre content, smell and acrid taste of pods; selection of early and prolific bearing types. The

detailed studies on nutritional aspects of seeds and medicinal properties of leaves, bark, seeds or pods needs to be done. It will also be useful to investigate further its capacity of nitrogen fixation and to estimate the quantity of nitrogen fixed for its better exploitation in agro-forestry.

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