

Background: *Phrynium pubinerve* (packing leaf) is an herb with creeping root stock. Leaves oblong, acuminate, base rounded or obtuse, leaves up to 52cm long and 35 cm broad at mature stage; petiole up to 60 cm long. Leaves of *Phrynium pubinerve* are being used as wrapping and packing material as alternative of plastic. It is used for many other purposes in Northeast India and glimpses of its uses are highlighted here.

In Khasi it is called Sla-la-met and in Garo called as Reru (Meghalaya). In Adi language it is called Atkam pat; among Galo known as Ekkam; in Hill Miri known as Kamyir ook (Arunachal Pradesh); in Assamese it is called Kou-Pat; in Tai known as Tong Sing; in Karbi called as Loru; in Mishing called as Kamro; among Bengali known as Kitta patta (Assam) ; Mizo called it Hnahthial (Mizoram).

Cultural uses: Mishing and Deuri tribe (Assam) used leaf of the *Phrynium pubinerve* extensively in all traditional festivals and religious ceremonies as wrapping material during food items preparation. Mishing wrapped all the agricultural implements through packing leaf at the first day of sowing for good harvest

Religious: Leaf of *Phrynium pubinerve* used by Mising as wrapper for the religious traditional food items. During *Dobur ui* ritual Mising people sacrifice cock, hen and pig to traditional deities.

The Po:ro Arug (fermented rice of Po:ro Apong) along with ginger and rice grains are placed on leaves of kamro (*Phrynium pubenerve*) as offering to the deities. Hill Miri of Arunachal Pradesh used packing leaves extensively in religious ceremonies and considered as holiest of plants. Leaves are used in rituals by the Adi tribe of Arunachal Pradesh.

Medicinal uses: Whole plant of *Phrynium pubenerve* is warmed over fire when a sap starts oozing out from the plant. The sap is applied as drops internally in to the ears. 2-3 drops once daily in the morning against earache sometimes rhizomes are also used against earache by the Karbi tribe (Assam). Mature leaves of *Zanthoxylum acanthopodium*, *Pteridium aquilinum* rhizome, *Sarcandra glabra* leaves are grinded. Fine mixture is then wrapped into many small packets with *Phrynium pubinerve* leaf and the packets are heated in the fire and covered with ash so that they do not get burnt.

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Manifold uses of packing leaves in Eastern Himalayan States



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After half an hour, all the packets are taken out while it is hot and the contents of each packet is then emptied into a piece of white cloth and tied at one end. It is then fomented on the body of persons suffering from leprosy and in treating various kinds of skin diseases. In case of boils, rhizome paste of *Phrynium pubenerve* is applied locally by the Khasi tribe. The paste of rhizome is used to relieve mental stress. The crushed seeds are taken during chest pain by the Adi tribe. Chakma tribe applied leaf paste against bone dislocation.

Traditional dishes: A traditional food item prepared from sticky rice called Khao Nong or Tupula Bhat (Steamed rice ball) nicely wrapped in freshly collected leaves of *Phrynium pubinerve*. It is also used as wrapper to prepare steamed fish in Assam. The boiled recipes serve by Singphoos of Assam packed with the leaf of *Phrynium pubinerve* have a high position in their society and traditionally used in different festivals, socio religious occasions and to serve special guest.

Traditional honey harvesting: *Pnar* tribes of Cachar district, Assam use smoke and chase technique for cutting the comb. They first prepare a bamboo torch with dry and fresh leaves of *Phrynium pubinerve* to produce smoke. For collecting honey from the tree they use a bamboo basket. They then arrange the packing leaves (Sla-la-met) in the basket to collect the honey.

They place packing leaves inside the basket in such a manner that the honey does not come out of it.

Rain coat/hat: The rain hat is called Lukhu, prepared by Laker tribe of Mizoram. Hat is formed of two circular piece of bamboo latticework, dome shaped and rising to a flattish peak, between which are placed the waterproof leaves of *Phrynium pubenerve* (Chaihua).

Container: It is a tradition of Kasi (Nocte tribes) of Arunachal Pradesh to drink distilled tapioca or rice beer prepared from conically folded packing leaves when the moderator bearing news or information regarding the marriage ceremony. In Mizoram packing leaves are placed inside bamboo basket to store water.

Packing material: Packing leaves are used by Karbi tribes for packing kitchen items. *Aakhone*, is an ethnic fermented soybean food of Nagaland and *Bekang* is a fermented soybean food of Mizoram and packing leaf is used to prepare this food item. Packing leaf is used to prepare Bamboo based fermented foods by Galo tribe of Arunachal Pradesh. *Jangpangnatsu* is a fermented food product made from crab by Ao Naga of Nagaland. And packing leaf is used to prepare this food. To prepare *Tam-um* (fermented mustard), *Chhangban* a traditional rice dish and for making sticky bread or sticky rice cake packing leaves are used extensively.

In Meghalaya, traditionally boiled snacks are prepared by mixing the pounded non-sticky rice with melted jaggery and a pinch of baking soda. Small portion of the mixture is taken on a fresh packing leaf wrapped properly with it and keep in the vessel containing boil water and steam or boil till the leaf turns brown. This snack called *Pusla* in Khasi and *Tpumakrut* in Jaintia and usually prepared during festivals, marriage, occasions. *Putyndong* is an indigenous cylindrical rice based food is commonly prepared by the Khasi tribe of Meghalaya using packing leaves. Traditional boiled; pork patty is prepared by stuffing inside the powdered rice paste *Pudoh* in Khasi

Food plate: Leaves used for packing rice grains which is consumed during community festival by the Adi tribe of Arunachal Pradesh. *Phrynium pubinerve* leaves are using as plate in community feast at Chandubi Festival (Assam).

Food: Fresh rhizome of *Phrynium pubinerve* wash and boiled properly then taken as food in isolated pockets of Manipur and Meghalaya.

Fodder: In Arunachal Pradesh leaves are used as fodder for cattle and pig.