

Wound healing property of leaf ethanolic extract of *Ageratina adenophora*

A team of researchers from DBT's Institute of Bioresources and Sustainable Development (DBT-IBSD), Imphal, interacted with the Mao Community of Senapati District of Maipur, who possess wide knowledge of medicinal herbs. After interaction, team collected and sampled 1 kg dry weight of *Ageratina adenophora* to check the various ethnopharmacological properties especially wound healing activity of the herb.



The leaf ethanolic extract of *A. adenophora* formulated as the gel was tested for its wound healing potential by excision & incision wound models. When the gel was applied on excision & incision wounds and left for 13-day study, the ethanol extract of *A. adenophora* showed strongly significant ($p < 0.01$) wound healing potential in excision as 90.98% wound contraction and 36.16% reduction in epithelialization time while in incision model, the plant extract showed significant increase (37.86%) in tensile strength on 13th day when compared to pure gel control. This study provided experimental support that *A. adenophora* possesses significant wound healing potential which confers the traditional use of this plant. The plant significantly influenced the quality of wound healing.

The North-Eastern Region of India is a bio-diversity hotspot- a store house of diverse flora and fauna, the former being traditionally a haven for local healers and indigenous medical practitioners. In Manipur, Senapati District, located at an altitude varying from 1061 to 1788m above mean sea level with lush green hills and mountains nestled in the lap of the Eastern

Himalayas. The district boasts of huge reserves of unexplored and unreported indigenous plants with ethno-pharmacological potential.

The Mao community is one of the major ethnic and tribal groups in Senapati District. The Maos possess wide knowledge and practical uses of various medicinal herbs and plants found in their midst. *A. adenophora* belongs to the family *Asteraceae* commonly known as crofton weed or sticky snakeroot in English and 'Japan opro' in Mao dialect. The curious and unique name owed its origin to the wound healing uses of 'Japan opro' by Japanese army during the Second World War. It is said by local healers, that the Japanese Army during their conquest, dispersed seeds of the *A. adenophora* wherever they tread, which have spread freely to this day.

Contact details:

Prof. Pulok K Mukherjee, Director IBSD

E-mail: director.ibsd@nic.in