Little known use of *Haloxylon* spp. in traditional food

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Abstract

An account of gathered information on traditional uses of ***Haloxylon salicornicum* (Moq.) Bunge** and ***H. recurvum* (Moq.) Bunge ex Boiss.** in food preparations by the local people of Jaisalmer and Barmer districts of Western Rajasthan has been communicated in this manuscript. Other uses of these plants as a source of fuel, food, fodder and in agricultural practices have also been discussed.

Keywords : *Haloxylon salicornicum*, *Haloxylon recurvum*, *Lana*, *Khar*, Food, Fuel, Fodder, Traditional uses, Western Rajasthan, Thar Desert.

IPC code; Int. cl.[7] **—** A23K 1/00, A23L 1/00, C10L 5/44

Haloxylon salicornicum* (Moq.) Bunge** and ***H. recurvum* (Moq.) Bunge ex Boiss.** known as *Lana* and *Khar*, respectively in local language are under shrubs, perennial plant species of family *Chenopodiaceae*. Creamy white or light pinkish flowers appear during September-October months. Plants thrive under adverse conditions of sandy and saline soils of Jaisalmer and Barmer districts of western Rajasthan. ***Haloxylon species are important biomass producers in barren lands of this area. The plants have good economic and environmental value for the inhabitants of this region. Though the plants are found wild in this region, their cultivation is difficult by natural methods. However, *in vitro* shoot multiplication using juvenile nodal explant of ***H. recurvum*** has been achieved[1].

The traditional use of plants mentioned in the text have been gathered from local people through personal communication and were verified and reconfirmed in subsequent visits to same or different localities. The plants were identified with the help of Flora of Indian Desert[2].

Haloxylon salicornicum

This plant is a good source of fuel, fodder and even food during famines. Wood of this plant burns with less smoke and ash. Mature (non green) branches or wood also used as an instant fuel. Ash of this plant mixed with salt is used as a tooth powder; young green twigs are a good source of fodder for Camel. Plants are also used as green manures for increasing productivity and aeration in sandy tracts. Flour of the seeds of ***H. salicornicum*** and pearl millet (***Pennisetum glaucum* R. Br.**) are mixed and used for making special *chappati* (locally known as *Dhokla*). The plant is a good soil binder and stabilizer in the area of shifting sand dunes. The plant contains alkaloids, and the oil contains tyramine and its N-Me derivatives[3, 4].

Haloxylon recurvum

It is a good source of crude Sodium Carbonate-*Barilla* or *Sajji-khar*. The plant is also used as fuel. The ash of plant is used as substitute of soap for cleansing clothes and is also taken with water against internal ulcers[2, 5]. Twigs of plants are utilized for the depositions (providing base) of salts in salt pit. Green tender branches are used as fodder for the Camels during famine. Ash extract of this plant is added as a special ingredient for unique taste of famous *Bikaneri Papad* of western Rajasthan.

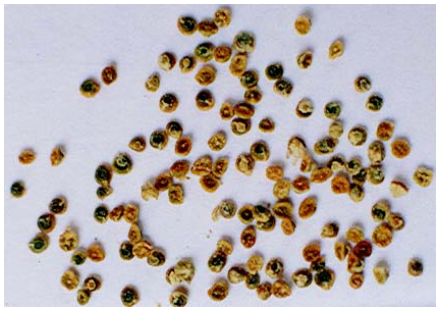
Conclusion

Two species of ***Haloxylon*** reported from the Sandy and Salty lands of the two districts of western Rajasthan are very useful for the rural population of this region as these plants are important source of fuel, food, fodder and even for agricultural practices. Due to overuse of these plants for the above purposes, the existence of these plants are in a state of extinction. There is a need for conservation and propagation of plants species. Scientific investigation should be carried out for biological activity and active ingredients present in these plants.

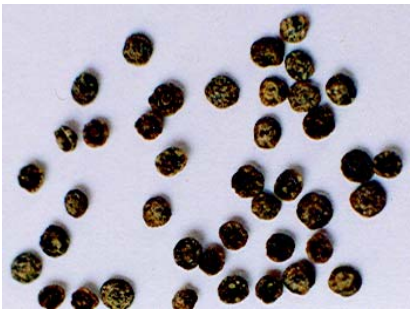
Haloxylon salicornicum at flowering stage

Haloxylon recurvum at flowering stage

Flowering twig of H. salicornicum



Seeds of H. salicornicum



Seeds of H. recurvum

Flowering twig of H. recurvum

Multiplication of shoots of ***H. recurvum*** through tissue culture technique will help in the rapid vegetative propagation of this plant. This will help in the welfare of inhabitants and for maintenance of ecological balance of severely draught hit area of western Rajasthan.

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