ABSTRACT

The present study was undertaken for evaluating the ethnobotanical status of Sohanjana, Moringa oleifera Lamk. of family Morigaceae throughout the Punjab as well as for assessing some of its ethnopharmacological effects. The ethnobotanical data thus collected through a questionnaire by interviewing 875 local inhabitants of 35 districts of Punjab indicated about 65% using this plant as food, 20% as medicine, 10% as fodder and 5% as fuel. The assessment of ethnopharmacological effects included antimicrobial activity including MIC, antioxidant activity, dermatological effects, using Moringa oleifera as livestock fodder supplement as well as studying properties and uses of its wood. The crude extract of powdered plant material obtained in non polar and polar solvents, petroleum ether, chloroform, methanol, and distilled water, produced well defined zones of inhibition. The results indicated that Sohanjana was potent against pathogenic microbes, i.e. Staphylococcus aureus, Pseudomonas aeruginosa, Klebsiella pneumoniae, Streptococcus pneumoniae, Aspergillus niger, Aspergillus oryzae and Trichoderma viridae. The flower extract of M.oleifera showed comparatively high antimicrobial activity against the microbes tested. The extracts were also found highly antioxidant showing more activity than the standard BHT. The %age yield of distilled water flower extract was highest (85%) among all the extracts. The tests of dermatological activity indicated that the chloroform extract of flower caused slight redness on rabbit ear's skin for 24 to 48 hours. Moreover, Moringa was found best fodder for the cattle as it not only enhanced the milk yield of buffalos, i.e. two litres but also improved the health of buffalos. It was also found best fodder for small goats as it resulted in increasing meat production. The wood analysis of M. oleifera indicated it suitable in making pulp for paper.