(30)

Knowledge, Perceptions and Practices of Undergraduates on the Use of Native flora in Landscaping: A Case Study from a State University in Sri Lanka

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Abstract

A plant is considered native if it has occurred naturally in a particular region, without any human introduction. Native species are usually valued above exotics by environmentalists as they are less costly to maintain as they have evolved and adapted to local environmental conditions with minimum inputs. Hence they are recommended to be used in landscaping and restoration projects. Despite their functional values, native ornamental plants are not readily available in the Sri Lankan market as opposed to exotics. Further, according to previous studies, the use of natives in landscaping is not a familiar concept in the country, and the present demand for natives is deficient. Hence, the need to educate the general public on the use of natives and its role in improving biodiversity through landscaping is timely. Therefore, this study was focused to assess the awareness, knowledge, and attitudes of the undergraduates on the use of native plants for landscaping. The study was carried out at the Faculty of Agriculture, the Wayamba University of Sri Lanka, using a structured interviewer administrated questionnaire (n=164) using simple random sampling. The association between native plant knowledge and demographic factors was measured by the Pearson chi-square test where the knowledge level of the undergraduates denoted a significant association with the age (p<0.001), province of residence (p=0.004), and the academic year (p<0.001). A notably higher percentage of undergraduates had a moderate level of knowledge on natives (78.0%), while 3.0% of students were characterised by a very high knowledge level. The native ornamentals are not used by any respondents at the home garden level. However, medicinal and fruit plant usage is established among undergraduates (57.3%), and 22.6% purchased native plants from the local market. Though native ornamentals are not popular among local community, at present, the hotel industry is keen on the use of native plants for sustainable tourism and ecofriendly services. A majority (80.5%) of the participants showed a highly favorable level of attitudes towards natives and medicinal value (Ranked score out of 5 (RS=4.2), drought tolerance (RS=3.7), erosion control potential (RS=3.6), and enhancement of pollinator interactions (RS=3.6) was recognised as the most preferred inherent characteristics. In conclusion, though the knowledge level and use of native fruit and medicinal plants among undergraduates are satisfactory, it is vital to educate them on the potential of native ornamental plants for promoting the concept of using natives in the landscape industry in Sri Lanka as ambassadors to disseminate the knowledge among the general public.

Keywords: Attitudes, Knowledge, Landscaping, Native plants