

Public pomology a cheaper source of human nutrition

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Opinion

Humans and animals have been living on this earth for thousands of years. Geographic, climatic and ecological conditions are very diverse throughout the globe. Human and animal populations living in different ecological regions used to enjoy their specific living style, foods and eating habits. However fast scientific developments, especially communicational and agricultural developments, in last 5-8 decades have influenced the indigenous life styles of the populations all over the world. These developments, of course, have raised the living standards of people in most parts of the world, but has also vanished many indigenous human values, plant and animal species by providing more attractive alternatives. Disturbance of local ecosystem due to such environmental factors may have created many problems especially regarding health and nutrition in many parts of the world.

Pakistan is located at the western end of South-Asian subcontinent with a land area of 79.61million hectare. It has a diverse climate ranging from subtropical to temperate and alpine forests in northern areas. There are about six thousand species of higher plants including fruit species and many crops. A wide range of world-wide known fruit species like mango, guava, citrus, banana, *Eugenia* spp., apple, peach, plum, apricot, grapes, and nuts like almond and walnut are grown; however, all are not native of all the areas where they are being grown. Most of these fruits have great commercial importance, however are expensive and out of the approach of poor people. Many minor fruit species e.g. *Ziziphus mauritiana* (common names: Ber, Jujube, Indian plum etc.), *Morus alba* (common names: Morus, Mulberry etc.), *Cordia dichotoma* (common names: Lasoda, Indian Cherry etc.), *Syzygium cumini* (common names: Jaman, Jambol, Jamun, Black Plum, Indian Blackberry, Jambol) also exist and are less commercial, but are in the approach of poor people of the native tribes. Many of these plants have phylogenic relationship with wild species and more resistant environmental stresses. The vegetative parts of these plant species are also a preferable source of food for grazing animals, especially goats and sheep. Although the minor fruits have no worth in the agricultural GDP of the country however their social, nutritional and conservational worth could not be neglected. Moreover, the native wild and non-commercial fruit species require little inputs and contribute a lot to the nutritional demands and are an indigenous source of medication of many local tribes. Promotion of less-commercial and indigenous fruit-plants, having significant nutritive value, will act as a cheap source of healthy nutrition for poor people and their animals in developing countries. It will not only conserve the social norms but will have greater impact on environment.

It is unique and social phenomenon of Pakistan that people of the rural communities while wandering in the public land and public places picks and collects the fruits to cater their nutritional need. It is common observation and perception that the wild and local fruit plants are vanishing gradually from the lives of the rural people. The climax of this trend could be the extinction of these local fruit species. The recent introduction of hybrid and exotic varieties of various commercial fruits has posed a serious threat to the local and no-

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commercial cultivars. So far, no efforts have been made to document, preserve and sustain these local fruit plants.

Although a lot of work has been planned and conducted to preserve the nature to sustain environment and climate, however it has never been thought to preserve the natural nutritional sources, which seems old fashioned but vital to sustain human and animal life of poor local communities. In the recent times of technological developments, sustainability and promotion of traditional food sources for human and animals is an unconventional approach to alleviate the malnutrition of poor people and their animals. Preservation of nature and keeping the humanity near to nature is always beneficial because it fulfills the natural demands of living beings without affecting the ecosystem.

As the native plant species are resistant to local climatic and environmental stresses and being a part of local ecosystem, supposed to have necessary nutrition for native living communities. These species contain significant concentrations of antioxidants, polyphenol, anti-carcinogenic effects, vitamin C and many other useful compounds. Therefore, these are an indigenous source of quality food and medication of many local tribes. Although the nutritive and medicinal importance of some local species for humans may have been suggested by researchers but for animals their nutritive importance has not been explored yet. A comprehensive study is direly needed to explain its importance for humans and animals to scientific and social communities to promote the cultivation of these plant species. Hence as a first step it is suggested to, 1) identify and document the local fruit-plant species of various agro-ecological zones being used as animal food, 2) evaluate the fruits and vegetative parts of plants for their nutritive value, 3) identify the significance of these plant species for human and animal health and nutrition.

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Conflict of interest

There is no conflict of interest regarding this article matters.