

Popularizing underutilized arid fruits for nutrition

Arid region is characterized by stressful edaphic and environmental conditions like tenuous moisture regime, intense solar radiation and extreme temperature. Under such distressing conditions, cultivation of field crops or other commercial fruit crops is a unprofitable venture. However, underutilized fruit crops such as lasoda, ker, pilu, phalsa, jharber, bordi, karonda, sehtoot, bael etc. can be grown successfully with minimum agricultural inputs in arid region. Further, these fruits are seldom affected seriously by diseases and pests due to their hardy nature. These fruits are rich source of vitamins, minerals and phytochemicals; besides possessing medicinal properties. These underutilized fruits have the immense potential of transforming the economy of rural and tribal areas provided they are given much needed attention through health campaigns about their nutritional importance.

HOT arid regions are bestowed with many underutilized fruit crops such as ker, lasoda, phalsa, jharber, bordi, pilu, karonda, sehtoot, bael etc., which are not so extensively cultivated, and their consumption and trade tend to be more limited, geographically and quantitatively, than those of the major fruits despite being rich in nutritive and medicinal attributes and also their ability to grow under adverse soil and climatic conditions. Biodiversity International recommended that underutilized fruits can be used as an alternative sources to combat hidden hunger. The underutilized fruits are an integral part of traditional foods, especially in rural areas and among tribal communities, and have the potential to contribute to food security and poverty alleviation. In ancient times, these underutilized fruits were the main source of food and medicines to rural and tribal people. However, in present time, their use in daily life has reduced, primarily owing to lack of awareness about their potential.

Nutritional Quality

These underutilized fruits are loaded with vitamins, minerals, fat, carbohydrates and antioxidants which have not yet been exploited satisfactorily. There are some fruits, which are rich source of protein, e.g. ker and pilu, which have 6% protein,

which is otherwise acquired primarily from pulses. Similarly, seeds of pilu are rich source of fat (45.5%) and carbohydrates (76%). Other fruits like bael (31%), ker (21%), phalsa (15%) and lasoda (12%) are moderately rich in carbohydrates. Pilu seeds have 6% fibre, while fresh fruits have 2%. Likewise, karonda and phalsa have 1.5% digestive fibres. Pilu, ker and phalsa fruits are abundant in calcium contents as they have 630, 154 and 130 mg calcium per 100 g fresh weight (FW) of fruits. Both ker (50.8) and karonda (39.1 mg/100g) are one of the richest sources of iron among the edible fruits.



Embellishing karonda fruits: a feast to eyes and health

