Wild Edible Fruits of importance for Human Nutrition in Semiarid Parts of East ShewaZone, Ethiopia: Associated indigenous Knowledge and implications to Food Security

Feyssa, Debela Hunde; Njoka, Jesse, T.; Asfaw, Zemede; Nyangito, M. M
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Abstract

Nutrient value assessments and ethnobotanical studies of three wild edible fruit species [Ziziphus spina-christi (L) Oesf., Balanites aegyptiaca (L) Del., Grewia flavescens A. Juss.J, were carried out from October 2009 through June 2010 in east Shewa Zone, Ethiopia. Field data collection was combined with laboratory food content analyses with the aim of identifying promising wild edible fruit plants. Also, optimal use of preferred wild edibles particularly in addressing future food security issues of rural people in the drylands was assessed Composite fruit samples randomly collected in six sites of F antalle and Boosast districts were subjected to standard laboratory chemical analyses. Values for total carbohydrates, crude protein, crude lipid, moisture and total ash contents of the fruit pulps ranged from 76.67-86.12%, 145-420%, 358-4.02%,3518-5741%,811-1640% for Z. spina-christi, 8555-89.61%, 0001-003, 4903-6826%,10.18- 12.88% for B. aegyptiaca; 83.74-93.68%, 064-3.14%, 1890-61.35%, 3.16-7.25% for G. flavescens, respectively. The calculated energy (based on total carbohydrates) was highest for G. flavescens (373.6 Kcal/100 g), followed by B. aegyptiaca (354.24) and Z. spina-christi (34448 Kcal/100 g). The results indicated that these fruit species, which are popularly used by the local communities, contain appreciable amounts of nutrients and energy and thus are useful food supplements. These species should be integrated into dry land agro forestry systems for sustainable use and conservation, as well as, preservation of the associated knowledge through the positive practice of the indigenous bio-cultural knowledge. In this case, lessons can be drawn from some farmers of Boosat District, who are currently using two of the species in traditional agro forestry practices.