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Nutritional value of some unexploited fruit crops

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There are many edible fruits and berries which are still underutilized for commercial growing and processing in food products. Some of them known for their medical value (e.g., and *Vaccinium vitis-idae*, *Aronia melanocarpa*) are cultivated in home gardens, but there is little information about nutritional value and suitability of minor fruits for developing products of high nutritional quality. Contents of titrable acids, soluble solids, ascorbic acid, total phenols, anthocyanin, carotenoids, tannins, and antiradical activity (DPPH) of fresh and frozen fruits of saskatoon (*Amelanchier spicata*), Blue honeysuckle (*Lonicera* ssp.), golden currant (*Ribes aureum*) 'Laila', black elder (*Sambucus nigra*), wild rowanberry (*Sorbus aucuparia*), and red bilberry (*Vaccinium vitis-idae*) 'Coralie' has been reported.

Saskatoon (*Amelanchier spicata*) is very resistant to low temperatures and biochemical value has been reported to 45-50 mg/100 g total anthocyanin, 18 g carbohydrates, 5.9 g total dietary fibre, 42 mg Ca, 1 mg iron, 3.6 mg C vitamin, 35.7 IU vitamin A. Black Chokeberries have been promoted as a health food, the berries are rich in polyphenol, anthocyanin - the raw juice contains up to 200 mg/100, proanthocyanins, and has demonstrated antiproliferative, and anticarcinogenic effects on human colon cancer. Blue honeysuckle has reported a quite high content of vitamin C (30-103 mg/100 g of fresh fruit), high content of proanthocyanidins (195- 772 mg/100 g), free catechins (122-625 mg/100 g), anthocyanins 116-339 mg/100 g), and total polyphenols (427-1142 mg/100 g). The main value of Black elderberry (*Sambucus nigra*) berries is the high content of anthocyanin (361- 722 mg/100 g) and total phenolics (up to 2240 mg/100 g). Wild rowan trees (*Sorbus aucuparia*) are rich with different bioactive compounds: they contain 15-225 mg/100 g vitamin C, 1.1-19.2 mg/100 g carotenoids, and up to 4300 mg/100 g dry weight total phenolics. Golden currants (*Ribes aureum*) are known as ornamental and rootstock for other currants they contain 40-200 mg/100 g vitamin C and up to 55 mg/100 g carotenoids.

Biography

P M Jagadeesha has completed his Bachelor's degree in Horticulture from University of Horticulture Sciences Bagalkot and presently pursuing the Master's Degree in Tamil Nadu Agriculture University. Currently his research focus is on Postharvest physiology of banana fruits.

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Study on garlic (*Allium Sativum* L.) genotypes under Chhattisgarh plains

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A field experiment was conducted to work out the genetic variability, heritability, genetic advance, character association and path analysis for different characters of 22 garlic genotypes during rabi 2012-13. Experiment was laid out in randomized block design and replicated thrice.

Results indicated that relative magnitude of genotypic co-efficient of variation was higher for marketable yield per hectare, total yield per hectare, weight of 10 outer cloves, plant emergence, average bulb weight and number of cloves per bulb. High heritability coupled with high genetic advance as percentage of mean was high for plant emergence percentage, collar height, collar thickness, fourth leaf length, polar diameter, equatorial diameter, neck thickness, average bulb weight, number of cloves per bulb, weight of 10 outer cloves. The association study among different characters revealed that selection for bulb yield should be based on marketable yield, plant emergence, number of leaves per plant, plant height, equatorial diameter and average bulb weight. Path coefficient analysis resulted that marketable yield had the highest direct effect followed by equatorial diameter, plant height, average bulb weight, weight of 10 outer cloves and neck thickness. Hence these components should be considered as selection criteria in garlic improvement program for Chhattisgarh plains.

Biography

Samaptika Kar has completed her M.Sc. (Horticulture) degree at the age of 24 years in 2012-2013 from Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh. She has published more than 5 papers in reputed journals.

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