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Consumer Preference/acceptance of Intrinsic/extrinsic Attributes of Dried Mango in Germany and Kenya

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Abstract

The international research project STEP-UP had linked stakeholder within the mango value chain in joint events. Here processing, value adding and production upgrading strategies were participatory identified to enforce the mango production. Training of sustainable intensification and market linkage strategies enabled small farm enterprises to step up towards food and nutrition security, sustainable development and income generation at farm and community levels. After two seasons of solar drying of mangoes researchers tested sensory attributes of the products. Intrinsic product attributes of dried indigenous mangos from Kitui County have been assessed in Kenya and in Germany. Additionally, quality characteristics in Kenya and extrinsic product attributes in Germany have been tested to draw implications for value-adding marketing strategies. Indigenous mango varieties (Kikamba, Boribo) as well as grafted strains from Kenya were tested against a market reference. Data of sensory evaluation from 200 panelist was achieved by hedonic scaling. Additionally, consumers were asked to indicate their willingness to pay for various mango products. The panellist received an online questionnaire together with instructions on the conduction of the sensory test on a number of test samples of dried mango slices. It was shown that colour and flavour were identified as the main drivers for positive consumer preferences of the samples. Moreover, panellists buying behaviour has an impact on overall liking and assessment of sensory attributes. The quantitative analysis exemplified the preferences for extrinsic attributes. Labels, country of origin and additives allow for market segmentation and pricing. The studies results indicate relevance of tailored marketing strategies towards meeting extrinsic attributes and sustainability preferences. Packaging and labelling of produced dried mango from Kenya, should envelope aspects of sustainability like indicating product origin from distinct farms, using indigenous trees species, rescued from felling. This is intended to appeal to consumers who value extrinsic attributes and are willing to pay the prices necessary to generate sufficiently high incomes for livelihoods and farmers. Solar drying of tropical fruits, is suitable to reduce post-harvest losses, especially at peak volumes during the fruit harvest season, while creating income opportunities for smallholder farmers, women and youth producing healthy and nutritious products.

Keywords: Consumer preference analysis, Dried mango quality, health aspects, nutritious facts, Small farm enterprises, Solar drying, sustainability attributes, value addition