



Tropentag, September 9-11, 2020, virtual conference

“Food and nutrition security and its resilience
to global crises”

Preferences and Consumption of Pigeon Peas among Rural Farming Households as Determinants for Development of Diversified Products

ZAHRA MAJILI¹, CORNELIO NYARUHUCHA¹, KISSA KULWA¹, KHAMALDIN DAUD MUTABAZI², STEFAN SIEBER^{3,4}, CONSTANCE RYBAK⁴

¹*Sokoine University of Agriculture, Food Technology, Nutrition and Consumer Sciences, Tanzania*

²*Sokoine University of Agriculture, School of Agric. Economics & Business Studies, Tanzania*

³*Humboldt-Universität zu Berlin, Thaer-Institute, Dept. of Agricultural Economics, Germany*

⁴*Leibniz Centre for Agric. Landscape Res. (ZALF), Inst. of Socio-Economics, Germany*

Abstract

Pigeon peas are legumes with a high nutritional value. Existing studies of pigeon peas in Tanzania mainly examine production and marketing, but little has been documented with respect to consumer preferences and the consumption of pigeon peas. This study assesses the preferences surrounding pigeon peas and their consumption as bases for the development of diversified and shelf-stable products for nutrition and income improvement.

Consumption study was conducted among 303 randomly selected farming households. Furthermore, 60 farmers participated in six focus group discussions in the Lindi region. A structured questionnaire and checklist with guided questions were used for data collection. Information about household characteristics preparation, preference and consumption of pigeon peas were collected. The analysis uses SPSS (V. 21) software. Data were tested for normality using the Shapiro-Wilk test. Differences between groups were established using Kruskal-Wallis and Mann-Whitney tests. The association were tested using Spearman's ρ at $p < 0.05$.

The mean age of farmers was 35.8 ± 8.5 (SD) with 95 % aged between 15-49 years. About 61 % of farmers were male, 71 % were married and 85 % had primary education. The mean pigeon peas consumption during harvesting and lean seasons was 80 g per person per day and 18 g per person per day respectively. The frequency of consumption was higher during harvesting (92 %) than the lean (29 %) season. During harvesting, 44 % of farmers consume pigeon peas more than 5 days compared to the lean season (4 %). Five pigeon pea recipes exist in the area. The majority of farmers (91 %) preferred to consume the local variety, with 84 % of them consuming pigeon peas as a stew. Consumption difference was observed in terms of availability, taste, source of income and familiarity as the factors determining pigeon pea consumption and preferences. Consumption preference was significantly affected by educational level, availability, and taste ($p < 0.05$).

With limited recipes and other barriers limiting consumption, the creation of innovative ideas for the development of diversified and shelf stable products fitting their consumption preferences is needed.

Keywords: Consumption, pigeon peas, preference

Contact Address: Zahra Majili, Sokoine University of Agriculture, Food Technology, Nutrition and Consumer Sciences, Sua, Morogoro, Tanzania, e-mail: majilizahra11@gmail.com