

Consumer preference and willingness to pay for certified high-iron beans among urban households in West Pokot County, Kenya

Donald Kirwa¹, Eric Gido¹, Charles Karani²

¹Egerton University, Department of Agricultural Economics and Agribusiness Management, Egerton, Kenya

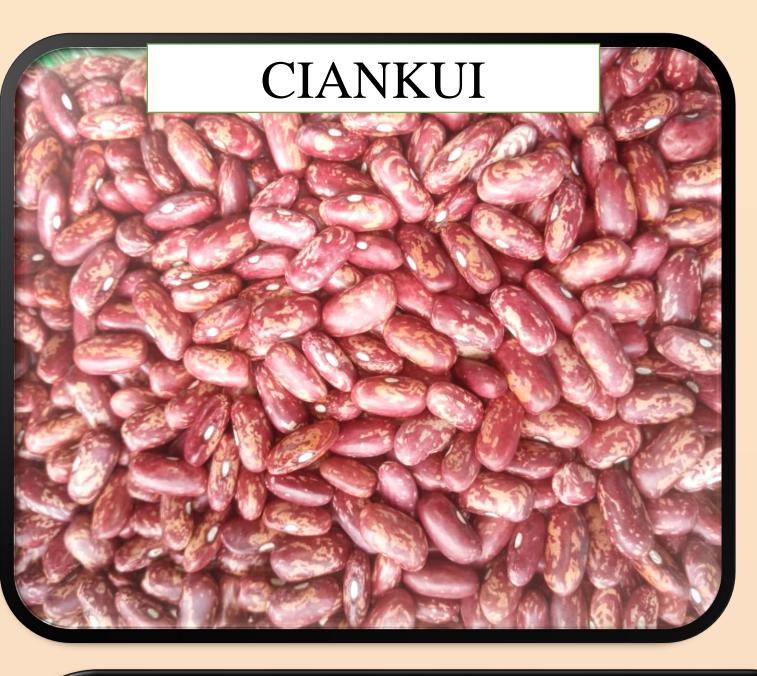
²Pwani University, School of Agricultural Sciences and Agribusiness, Kilifi, Kenya

INTRODUCTION

- In combating malnutrition bean varieties, (Nyota, Faida, and Angaza) biofortified with iron have been released by Harvest plus, Kenya Agriculture Livestock and Research Organization.
- •These high-iron bean varieties are not easily distinguishable from conventional varieties' since they have similar phenotypic traits.
- •Consumers may need help in identifying bean varieties that align with their preferences to avoid the purchase of non-high-iron beans
- •Implementing certification processes is crucial in identification, distinction, and product such as, high iron bean.
- •Food certification and grain labelling are not commonly observed in the agricultural market outlets of many Sub-Saharan African countries like Kenya

NYOTA BEANS (HIGH IRON BEAN VARIETY)









A MIXTURE OF SEVERAL BEAN VARIETIES SOLD IN THE MARKET

Figure 1: Different bean types

OBJECTIVE AND METHODOLOGY

- To determine consumer preference and willingness to pay for certified high-iron common beans among West Pokot County urban households
- An exploratory research design was adopted
- A stratified multi-stage sampling technique was used to select 384 food decision makers.
- A mixed logit model was used to analyse the choice experiment results.

RESULTS

Variables	Mean effects	Standard Deviation
	Coefficient	Coefficient
Price in KES per kilogram	-0.1427***	
Highly processed certified high iron common beans	-1.3110***	1.6249***
Private certification	-2.6242***	1.6587**
Public certification	-3.1597***	5.9787***
Mandatory labelling	1.3628***	1.5005**
Age × Public certification	0.1069**	0.0429**
Education × Public certification	0.5128***	0.2374**
Sex × Highly processed high iron common beans	1.2825**	0.0917

Attribute	Marginal WTP in KES	Standard errors
Public certification	22.1370***	2.8791
Mandatory labelling	9.5475***	2.2825
Private certification	-18.3855***	1.7633
Highly processed high iron common beans	1.2825**	0.0917

CONCLUSION

- •Food decision makers preferred low prices, the certification of high iron common beans by public bodies and mandatory labelling of these beans.
- •Food decision makers exhibited negative preference for highly processed high iron beans over lowly processed beans and the certification of high-iron common beans by a private body over joint public private certification bodies.
- •Age and education level of the food decision makers were identified as heterogeneous factors.
- •Food decision makers were willing to pay premiums for public certification (KES 22) and mandatory labeling (KES 9), but required discounts (KES 9) for highly processed and high iron beans certified by a private body (KES 18).
- •Employing strategies that are tailored to consumers heterogeneous factors and those recognising the aforementioned preferences would provides consumers and marketers with essential information to facilitate informed nutritional choices.

KES refers to Kenyan shillings (Official Kenyan currency); Exchange rate was 1 \$US = KES 158.45 at the time of survey

^{1.} The certification body responsible for common beans (1 = private certification body; 0 = joint public and private certification bodies); Base category was private certification 2. The certification body responsible for certifying high iron common beans (1 = public body; 0 = participatory guarantee systems); Base category was public certification

^{3.} The labelling approach for high iron common beans in the market (1 = mandatory labelling; 0 = voluntary labelling); Base category was mandatory labelling of high iron common beans

The two levels of processed certified high iron common beans (1=Highly processed certified high iron beans that need not to be cooked before consumption; 0 = Lowly processed certified high iron beans that need to be cooked before consumption) Base; Category was highly processed beans