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Farmers’ and academia’s views”

## Consumer preference and willingness to pay for egg attributes from hen fed insect-based feed

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### Abstract

In the recent years the growth of population has led to the increased demand of protein rich meals. This has led to the need to increase protein rich meals such as eggs and in order to do so there is a need to do so in an environmentally friendly and cost-effective manner. Insect-based poultry feed has shown the prospects of increasing production in a cost-effective manner. However, research on consumers preference and willingness to pay for eggs from hens fed on insect-based feed is limited. This study utilised choice based conjoint analysis (CBCA) to determine consumer preferences and willingness to pay (WTP) for four attributes of eggs. Multistage sampling procedure was used to collect data from 200 consumers in Kiambu County. The results of CBCA revealed significant heterogeneity in preference among egg consumers. Our results revealed that 65.5% were aware of the use of insects as feed. Consumers’ have shown preference for insect-based feed in production of eggs with 70.5% willing to consume these eggs. The results show that consumers least preferred large eggs and were willing to pay the lowest at Ksh. 2 and most preferred golden yellow yolk eggs and were willing to pay Ksh. 18. It was also found that price was the most important attribute in determining consumer preferences with 86 percent of consumers showing concern. The results indicate that consumers were more willing to pay 10 percent more for golden yolk eggs at Ksh 11 than the average price of conventional eggs. Producers should consider the differences in preferences among consumers to increase the uptake of eggs produced from commercial BSFL-based feed. This work contributes to the limited knowledge on insect-based feeds and paves way for further linkages between farmers, public private partners, policy makers and consumers.

**Keywords:** Choice based conjoint analysis, consumer preference, egg attributes, insect-based feed