

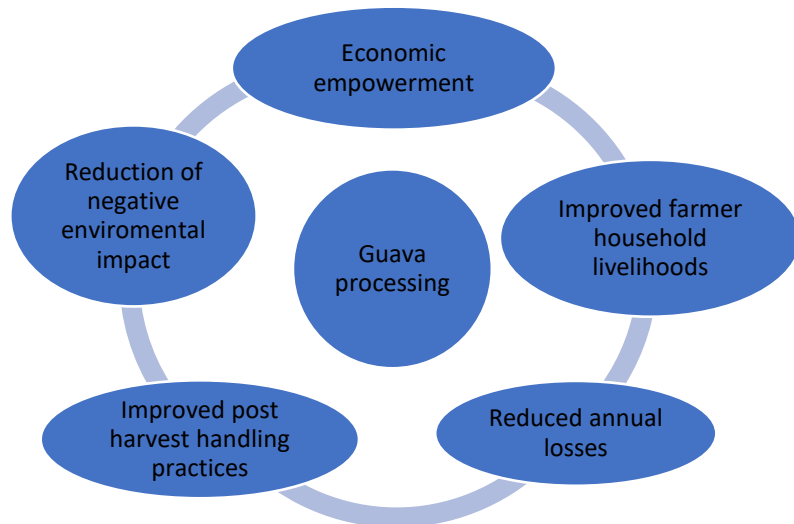


Innovation in Small-scale Guava Processing Technologies

- ❑ Processed guava nectars fetch a minimum net profit of 1.2-1.6 \$ per kg of processed fruits compared to raw fruits' \$ 0.02-0.10 per kg.
- ❑ The products are easily processed – minimizing the annual losses, boost daily fruit consumption, and economic empowerment.
- ❑ Processed guava products have high consumer acceptability, and therefore, there is an existing underutilized guava value chain that should be exploited.



Expect impact



Innovative of Local Kenyan Guava for improved Economic and Nutritional Security Processing

Guava Value chains in Kenya

- ❖ Kenya produces an estimated 11,000 MT of guava worth \$ 1.1 million annually.
- ❖ Production is characterized by cultivars growing from naturally dispersed seeds and have various genetic and morphological characteristics
- ❖ The guava value chain is poorly structured with poor postharvest handling practices, minimal marketing, and non-existent industrial processing.
- ❖ Limited research and development programs aimed at domesticating and commercializing the crop have been a hinderance in the fruit's economic and nutritional exploitation.
- ❖ Underutilization and negligence of the crop results in annual losses exceeding 75% of fruits



Guava trees



The common Kenyan guava varieties



Current Innovation in Small-scale Guava Processing Technologies

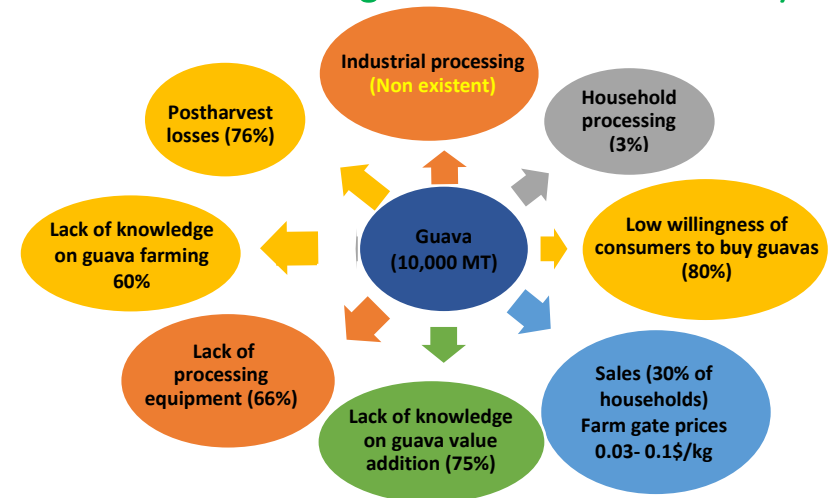
- This research has led to the development and standardized processing of nutritious guava nectars with high consumer acceptability and commercial feasibility



Processing of guava fruits into nectars and chicken feeds

- The guava by-products can also be processed into alternative products in the form of poultry feeds.
- The processed guavas target market includes urban and peri-urban consumers through retail shops, supermarkets, institutions, and exhibitions.

The Status of guava value chain in Kenya



Source: Omayio, et al (2020): Trends and Constraints in Guava Production, Utilization, Processing and Preservation in Kenya

Causes of guava losses in Kenya

- Inadequate guava postharvest handling practices
- High perishability of the guava fruits
- Inappropriate storage conditions /facilities
- Lack of ready markets for the locally produced fruits
- Lack of knowledge and capacity to process locally produced guavas
- Limited research on Kenyan guava value chains



Rotting fruits –during guava seasons