

Simon selling some of his mango value added products during the Nairobi International Trade Fair.
PHOTO BY ZABLON OYUGI.

Kenyan entrepreneur's journey from one-acre farm to global mango crisps exporter

By Zablon Oyugi

Simon Musyoka from Kitui County, Kenya was a shopkeeper who owned a one-acre piece of land in Ithiani Village under mangoes.

For a long time, the smallholder had been selling his mangoes to brokers from Nairobi at Ksh3 per kilo, comprising of 3-5 pieces, which returns were very negligible and unsustainable.

However, in 2018 a friend from Thailand visited and this was to the beginning of something new and exciting for the farmer, and which would change the course of his life completely. The friend, who was in chocolate manufacturing

tried selling him the idea of making the snacks.

"But though this was a good idea I did not know where to find raw materials to process chocolates," he says. However, an idea struck his mind: "Why not make mango crisps. After all he already had mangoes and could get more from neighbours. Mango crisps were tasty, healthy snacks that could be sold even out of season at a good price."

This proved to be a good alternative, also, because mangoes are grown in plenty in the eastern part of Kenya. He, therefore, transitioned from his shop business to focus on adding value to mangoes by making mango crisps using polytunnel solar dryers. He

named the business, SunSweet Fruit Farm Products.

Unfortunately, this first effort resulted in significant losses, amounting to Ksh1 million, which included expenses for purchasing construction materials, raw materials, labour, and consultancy services. According to Simon, the primary reason for these substantial losses was a lack of technical skills.

"I had to discard tonnes of spoiled crisps from the dryers on three different occasions. I couldn't pinpoint the exact cause, only having a vague suspicion that it might have been due to improper operation or faulty installation of the dryers," he recalls.





Polytunnel dryers

Using polytunnel dryers was also an idea he got from his Thailand friend. It is a new technology used for drying different farm produce, though not yet popular in Kenya, but mainly used in temperate countries.

A polytunnel, also known as a polyhouse, is made from steel, and covered with polyethylene. It is usually semi-circular, square, or elongated in shape. The polyhouse is built on a platform made of wood 3-4 feet above the ground with enough gaps in between the wood materials and below the platform for free movement of air.

The wood is covered with shed nets on which produce, in this case mango chips, are spread for drying.

How it works

The interior heats up because incoming solar radiation from the sun warms the produce inside the polyhouse faster than heat can escape the structure. Air warmed by the heat from the hot interior surface is retained in the house by the roof and wall making the temperature inside higher.

To control conditions in the interior can be done by manually opening and closing of vent. "In the hot season, temperatures inside can rise to above 65 degrees Celsius; hence, it can dry produce even in rainy seasons as it cannot develop fungus," says the agripreneur.

It also protects the produce from rain, dust and invasive animals such as monkeys and rodents such as rats. The initiators of the technology from the temperate regions say the polytunnel can last for over six years given the materials it is made of and is fit for small-scale industries like Musyoka's SunSweet Fruit Farm Products venture.

Lack of technical capacity

Since at the beginning of the business



he did not have the technical capacity to construct a polytunnel, Musyoka hired an expert from a local university whom he paid Ksh230,000 for materials and labour.

Once this was complete towards the end of year when mangoes are in high season in the area, he harvested from his own farm five tonnes and bought eight more tonnes, which he stored to meet the hard ripe stage required for mango crisps.

"After this, we peeled a tonne of the mangoes and chopped the juicy parts into slim round shapes for drying into crisps in the polyhouse, a process that can take around two days depending on the weather," he says.

To his surprise, all the crisps spoilt and were discarded.

His second attempt was in January 2019 with six tonnes and again all the crisps got spoilt and were discarded. At this rate, he realised that something must have gone wrong with the construction of the tunnel, so he hired another technician from Nairobi, whom he paid Ksh700,000 for materials for two new polytunnels and Ksh150,000 for labour.

"I had decided that this is what I

wanted to do and there was no room to lose hope," says the determined agripreneur.

Success finally came

After the two additional polytunnels and modifications to the previous one were completed toward the end of 2019, Simon processed 15 tonnes of mangoes in January 2020, from which he obtained five tonnes of good quality mango crisps. He managed to find a buyer in Salt Lake City, USA, through an exporter, and earned Ksh1 million from the tonnes.

This success marked a turning point in his entrepreneurial journey.

Since then, he has increased the amount of mangoes he processes to the current 82 tonnes, sourcing from farmers in Kitui and Machakos, in addition to his two-acre plot. The packaged and branded "Mango Love" sells for no less than Ksh100 locally and up to Ksh2000 in the US market.

Other products

While the mango peels can be used to feed livestock, the Kitui agripreneur is also processing other products from the fruit such as mango juice and jam, all branded Mango Love. A 450g jam goes at Ksh200 while 500ml and 250ml juice sells at Ksh100 and Ksh50 respectively.

"I have also introduced lip balm. I make this from mango seed, which is dried and crushed to give mango kernel butter before being mixed with coconut oil, beeswax, almond oil and peppermint that makes it effective in keeping lips nourished and soft," says the enterprising farmer.

Additionally, Simon's venture has created employment opportunities for six women and youth, with numbers increasing to 16-20 during peak seasons. He has also become an expert in mango value addition, offering consultancy services on polytunnel installation and various product processing for a fee.