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# Pack 97, Item 7

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**Mangoes for all seasons:** **Kenyan farmers profit by drying and selling mangoes all year round**

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### Notes to broadcaster

Farmers in Murang’a County, in Kenya’s central region, are drying their fruit and vegetables with a locally-made solar drier to make high-value products. The mangoes and other fruits and vegetables are sliced into small pieces, dried and then packed. The dried fruits and vegetables are then sold to Azuri Health Ltd., a private company which introduced the farmers to the solar drying system. Azuri Health also teaches the farmers about processing and marketing their products.

This script shows one way that fruit and vegetable growers can capture a larger share of the value in fruit and vegetable value chains. By receiving training and instructions on how to make solar driers from Azuri Health Ltd., the farmers added value to their produce and received higher prices. The company benefited by getting a reliable supply of quality fruits and vegetables, which it, in turn, sells to buyers.

This script is based on actual interviews. You could use this script as inspiration to research and write a script on a similar topic in your area. Or you might choose to produce this script on your station, using voice actors to represent the speakers. If so, please make sure to tell your audience at the beginning of the program that the voices are those of actors, not the original people involved in the interviews.

Do you know of similar partnerships between companies and farmers in your listening area? There might also be partnerships between NGOs and farmers. Being involved in such a partnership is no guarantee of success for farmers, of course. Farmers must be careful that the terms of the contract – whether written or verbal – between themselves and the other party are clear, fair and favourable to the farmers. The farmers featured in this script received clear benefits. But perhaps you know of projects where farmers were not treated fairly, or did not receive benefits.

You could air this program, and follow it with an open discussion (with phone-in and text-in) about partnerships between companies and farmers. In what circumstances are these partnerships beneficial to farmers? Where can farmers turn for assistance to ensure that partnerships will be beneficial?

The estimated running time for this item (element), with signature tune, intro and extro is 15 minutes.

*Signature tune up then under*

**Host:** Greetings, listeners, and welcome to the program. Did you know that you can grow mangoes and sell or eat them two years after harvest? And make good money doing it? Well, it’s true. Stay tuned and find out how. (*Pause*)

In December to February of each year, mango farmers in Africa are forced to watch some of their mangoes rot on the tree because there are too many mangoes on the market.

But farmers in Murang’a County, in central Kenya, have found a solution to this problem. They are preserving their fruits and vegetables with a solar dryer. They are earning more money from the dried fruits because they have added value.

They learnt this technique from Azuri Health Ltd., a company which also buys their dried products. We will hear from a spokesperson for the company a little later. First, let’s hear from two mango farmers. I visited them at their home in Murang’a County, in the central part of Kenya.

*Signature tune up and out under*

**Muchoki:** Welcome, welcome. I am Samuel Muchoki and this is my home. This is Margaret Nyambura. She is also a mango farmer.

**Host:** Hello, Margaret, nice to meet you.

**Nyambura:** Thank you and welcome.

**Host:** Thank you. I am here to learn more about mango farming. Perhaps we will start with you, Muchoki. How long have you been growing mangoes?

**Muchoki:** I started growing mangoes more than 10 years ago after I retired from a government job. I have seven acres of different mango varieties – Van Dyke, Tommy Atkins and Kent.

**Host:** That must be a lot of mangoes.

**Muchoki:** Yes, but I did not start with seven acres; I started small. At first, I was growing maize, beans and vegetables until I heard that there was a large demand for mangoes locally and abroad. So I started with a few trees.

**Host:** How was your life after you retired from the government job, before you started growing mangoes?

**Muchoki:** It is hard to survive after retiring from a government job. Life was not easy. My wife and I were jobless and we had children to feed, clothe and educate. Even feeding my family one meal was a problem – and that is embarrassing for a man in my culture. Everyone was growing beans and potatoes, so selling was hard. That is all we were eating day and night. It was bad. Growing mangoes is the best decision I ever made.

**Host:** Tell me: how do you grow the mangoes?

**Muchoki:** I dig square holes two months before the onset of the rains. They should be two feet deep and two feet wide. You mix the soil from the hole with compost or animal manure and refill the hole. Then after a few days of rain, plant your seedlings. All you need to do is water and mulch your mango tree and add a bit of compost manure or animal manure occasionally.

**Host:** So when is the fruit ready for harvest?

**Muchoki:** Intwo and half to three years, just after the tree has flowered. The flowering that happens soon after the seedling is planted should be cut off because the plant is not mature enough to produce fruit. If it is left to produce, the fruits will be too heavy, which will kill the tree.

**Host:** Can you grow any other plants in between the mango trees?

**Muchoki:** Yes, but only before the flowering season. Legumes are best when the tree is still young because they provide nitrogen for the mango tree. You can also grow maize and tomatoes. But when the mango begins to flower, themaize pollen will reduce the quality of the mango fruit. So maize should only be planted in the two years before the mango tree flowers.

**Host:** Let’s talk about harvest. When do you start harvesting?

**Muchoki:** I start harvesting four to five months after flowering when the mango fruit is at the hard ripe stage. Hard ripe mangoes slice well for drying, but when mangoes are too ripe, they don’t dry well.

**Host:** How can you tell that it is at the hard ripe stage?

**Muchoki:** When thecolour of the peel changes from dark green to light green. You can also randomly pick and cut a few. It is ready for harvest when you see a yellow colour around the seed. If this is white, the mango is not yet ready for harvest. Harvest time is from December to January, and then from February to March.

**Host:** How do you harvest with the least damage to the fruit?

**Muchoki:** You hand pick the fruit if possible – that way you can see if the mango is ready. For example, the stem will snap easily when you pull, and the base of the fruit will have a purplish-red blush. Don’t let the fruits fall as this causes bruising of the fruit and later rotting. Be careful not to let the sap drop on the mango because it burns the skin, and that causes rot where the sap dropped. You can avoid this by retaining four inches of the stem on the mango when harvesting.

**Host:** I see most of your neighbours also grow mangoes.

**Muchoki:** Yes, after seeing how profitable mangoes are, my neighbours like Nyambura here (*laughing*) also started. Now we have a communal drier and a common peeling area, and we sell the mangoes together and divide the money among ourselves.

**Host:** Looking at your compound, you have a beautiful house and some cows. Are they a result of mango farming?

**Muchoki:** Oh yes! I started making money three years after I planted my mangoes and it brings in some good money. I can get at least 50 mangoes from one tree, and I sell both fresh and dried mangoes.

**Host:** How much do you make from the ripe and dried mangoes?

**Muchoki:** When we sell fresh mangoes to the brokers or middlemen, it can be as low as 10 shillings for three mangoes. But the dried mangoes go for 650 shillings per kilo. You need around 30 mangoes to make a kilo of dried mangoes. So we make more from dried mangoes.

**Host:** What do you use the money for?

**Muchoki:** With that money, I have taken my children to university, I have built a permanent house, I have bought dairy cows, and, after 10 years, the mango trees are still producing. There is money in mangoes (*laughing*)!

**Host:** Let’s move to the mango peeling area and drier so you can tell me more about the post-harvest process.

**SFX** *Footsteps fade in then out*

**Host:** We are in a wooden structure with a roof and four sides, and with mesh attached to the frame. Any particular reason why it is built like this?

**Muchoki:** This is the peeling area. The mesh fabric is just to keep away flies and bees that may be attracted by the sliced mangoes.

**Host:** Peeling is immediately after harvest?

**Muchoki:** Not immediately. After harvest, we keep the mangoes in a cool dry place and hung upside down so that the sap can drain, and the mangoes can ripen a little. We then choose the soft ripe ones to sell in the fresh produce market, and the hard ripe ones will be dried. We bring these ones to the peeling area. After they are peeled and sliced, they are then put inside the drier. Let’s go to the drier; I will show you inside.

**SFX** *Footsteps fade in then out*

**Muchoki:** Here we are. This is where we dry our fruits and vegetables.

**Host:**We are in a dome-shaped wooden structure covered with polythene paper inside and outside. Why do you use this kind of paper?

**Muchoki:** This paper retains a lot of heat, which is required to dry the fruits and vegetables. It can get as hot as 55 to 70 degrees Centigrade inside. We use a thermometer to ensure that temperatures are as required. With seven straight hours of African sunshine, the fruits will be dry and ready for sale.

**Host:** And the whole drier is covered with polythene paper?

**Muchoki:** Yes, apart from small ventilation areas covered with a mesh-like material, the rest of the drier is covered. This is not just for retaining heat, but also to keep rodents and flies away, so the drying is under hygienic conditions. We don’t dry the fruits out in the open to prevent them from getting scorched by the sun.

**Host:**And the trays that I see here that are covered with a sieve-like material – what are they for?

**Muchoki:** These are the trays that we put the fruits and vegetables on to dry. The sieve-like material is so that air can circulate under the products that are drying.

**Host:** How long can you keep them before the buyers get them?

**Muchoki:** Very long, even up to a year, as long as they are stored in a cool dry place – like a room away from heat, such as a pantry. Right now, we have five kilograms of dried mangoes which are yet to be picked up by the buyer, and there is no preservative used.

**Host:** What do you do when there is no sunshine?

**Muchoki:** Mangoes are ready for harvest in the dry season, which is December to around February. But with changes in the climate like this year, we had rains in January and February. We don’t harvest on rainy days to avoid wastage. We wait to see that the sun is up and hot before we harvest and peel for drying.

**Host:** Nyambura, you are very quiet … let’s hear the opinion of a woman mango farmer. How many acres of mango trees do you have?

**Nyambura:** Two acres. But I also grow pawpaws and vegetables for drying and to sell in the fresh produce market.

**Host:** How has growing mangoes helped you?

**Nyambura:** My mango trees are my greatest wealth. During the mango harvest season, I make more money than I make selling tomatoes and vegetables combined in a whole year.

**Host:** Why do you think that is?

**Nyambura:** You see, our fresh mangoes used to fetch very little because we would sell to middlemen, who would sell at a higher price in towns and cities, or even export. Or, if there was no market, the mangoes would ripen and rot on the tree and just be eaten by birds. With the drier, we can harvest and dry – and even wait until mangoes are out of season to sell at a higher price.

**Host:** What was your life like before you started growing mangoes?

**Nyambura:** You know, even getting food was a problem. We used to eat a mixture of maize and beans every day for lunch and dinner, no breakfast. My children were always sick and we had jiggers because we had no shoes. When I got my first cheque after selling dried mangoes, I bought and cooked meat for my children. Now I can afford to give them a balanced diet of three meals a day.

**Host:** What about your family?

**Nyambura:** Many men in Murang’a are drunkards. They don’t take care of their families, so the women have to work extra hard. My children are fed and clothed and are in school from the money I make selling mangoes. I repaid the loan I got from a local self-help group and I have been able to move from a rented house and build my own house using money from selling mangoes.

**Host:** From the same mangoes you planted in the beginning?

**Nyambura:**  Yes. I planted my mango trees six years ago and I am still making money from them. And I don’t use much money to maintain them. When I get more money, I will buy more land and maybe even make my own drier so that I can make more money like Muchoki here (*laughing*). He is our role model.

**Muchoki:** We also want to make a bigger communal drier for mangoes, bananas, pawpaws, pineapples and vegetables.

**Host:** Thank you and all the best.

**Nyambura and**

**Muchoki:** Thank you.

**Host:** That was Samuel Muchoki and Margaret Nyambura, mango farmers from Murang’a in central Kenya. They are drying their fruit and vegetable crops and making high-value products.

You are listening to the *Farmer to farmer* program. Next, we will hear from Brian Apanza of Azuri Health Ltd., which is working with farmers in Murang’a, Kenya, to produce dried fruit and vegetable products.

**Host:** Could you start by telling us what Azuri does?

**Brian:** Azuri produces a wide range of dried nutritious health products like fruits, vegetables and flours.

**Host:** Where do you get your products?

**Brian:** We get most of our products from farmers – like the dried bananas, pineapples and mangoes. We get the vegetables from the market and dry them ourselves.

**Host:** How do you ensure that the fruits and vegetables are handled to your liking from planting to drying?

**Brian:** We have trained the farmers on hygiene and how to handle the fruits and vegetables after harvest. We have shown them how to make the driers. We also work with extension workers and NGOs who teach the farmers how to grow the fruits and vegetables to the required standard.

**Host:** So how does the farmer benefit from the partnership with Azuri?

**Brian:** Adding value to their fruits and vegetables by drying means the farmer earns more value for the crop. The farmer is able to sell directly to the market even when fruits and vegetables are out of season, and without going through a middleman. They sell it to us at a premium price and we package and market their produce.

**Host:** What about the consumers? Are dried fruits popular?

**Brian:** They are getting more popular now than when we began. Most of the supermarkets are stocking dried fruits and vegetables, and people are realizing that they can enjoy their favorite fruits and vegetables all year round. But most importantly, the dried fruits and vegetables help to deal with food insecurity issues in the country. Dried vegetables and tomatoes are now available in all seasons, and farmers are learning that they can actually feed citizens all year round.

**Host:** What are Azuri’s plans for the future?

**Brian:** Right now we have mangoes, pineapples and bananas, as well as the flour made from traditional vegetables like pumpkin and orange-fleshed sweet potatoes. We have also just started producing dried tomatoes. They are now being tested in the supermarket and we hope to expand and export the products to many countries inside and outside of Africa.

**Host:** These dried pineapples here are quite appealing. Can I try one?

**Brian:** Of course! This is passion-flavoured pineapple.

**Host:** (*Chewing*) Umm ... Very sweet, (*chewing*) and it is not too dry either. I could eat these all day.

**Host:** That was Brian Apanza of Azuri Health Ltd., a company that is working with farmers in Murang’a, Kenya, to produce dried fruit and vegetable products.

We also heard form Samuel Muchoki and Margaret Nyambura, mango farmers from Murang’a in central Kenya.

Today we learnt how to grow mangoes from planting to harvesting, and how to add value to the mangoes by solar drying them. Thank you for listening. I am \_\_\_\_, saying goodbye.

## Acknowledgements

Contributed by: Ms. Winnie Onyimbo, Trans World Radio, Kenya

Reviewed by: James Kuppa Vesso, Project Manager, The Association of Mango Growers, Dar es Salaam, Tanzania.

**Information sources**

Interviews with:

Samuel Muchoki, mango farmer in Murang’a, central Kenya

Margaret Nyambura, mango farmer in Murang’a, central Kenya

Brian Apanza, Project Officer, Azuri Health Ltd.

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