

# Pack 102, Item 7

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**Raising goats to beat the drought in eastern Kenya**

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**Notes to broadcaster**

In many parts of Africa, the changing climate is creating challenges for farmers. In eastern Kenya, farmers are faced with extended droughts.

In Kenya, most livestock keepers prefer to raise cattle. But with the changing climate, a few small-scale farmers in eastern Kenya have recently discovered that goat farming is a lucrative substitute for cows.

Goats are hardy animals, especially in dry areas. They do not consume a lot of fodder, can go for several days on the water in the food they eat, do not require much land, and, if well-managed, gain enough weight to be sold in six months.

This script shows how a small-scale farmer can get a lot of milk and manure, and eventually make money by selling goats.

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.

You might choose to present this script as part of your regular farming program, 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.

You could also use this script as research material or as inspiration for creating programming on dairy goat farming in your country.

Talk to farmers who raise dairy goats. You might ask them:

What are the benefits of raising dairy goats?

What are the challenges? How have you addressed those challenges?

Do you think farmers can make money in this area raising goats?

You could also host a call-in program where farmers talk about these issues. You could invite an expert to talk and respond to farmers’ questions and comments.

Estimated running time: 25 minutes, with intro and outro music.

Sig tune up then under

**Host:** Good morning and welcome to another edition of the *Farmer to farmer* program. Today we are going to look at the effects of drought and what farmers are doing to cope with it. I visited some farmers in Mwingi, eastern Kenya who have made a successful switch from cattle to dairy goats. I started out by speaking with a farmer’s coordinator named Mcdonald Mnuve.

**Host:** How has drought changed livelihoods in Mwingi?

**Mcdonald Mnuve:** The main source of livelihood in eastern Kenya was rainfed agriculture and most people earned their livelihoods from farming. But agriculture has been challenged by long periods of dry weather. This area was one of the most affected–you must have heard news in the media that people in Nuu’ in Mwingi were feeding on dogs because there was no food!

**Host:** What kind of effects were the farmers experiencing from drought?

**Mcdonald Mnuve:** Farmers complained of seeds not germinating, poor crop yields, and a large number of weak and finally dead livestock because the seasonal rivers dried up and there was little or no rain. This forced many farmers to rely on government food aid.

**Host:** How did they survive during the dry seasons?

**Mcdonald Mnuve:** Farmers sought other sources of livelihoods like illegal wood cutting, burning charcoal and harvesting sand from dried river beds. This degraded our land even worse for farming.

Men went to the towns to be casual construction workers to get a little money. Even children were involved because they could not sit in class hungry. Everyone had to contribute to put food on the table.

But now farmers have found ways to cope with the drought. Now we are growing drought-resistant crops and raising breeds of goats which are more tolerant of drought and are doing very well.

**Host:** Have farmer’s lives improved by switching to these strategies to help cope with the drought?

**Mcdonald Mnuve:** Yes indeed. For the farmers in Mwingi who have embraced goat farming, even if there is lower rainfall, they can have some milk and they have goats they can sell to earn money and get manure for their more drought-resistant crops. Their families do not go hungry like they did five to 10 years ago. Children are healthy and in school. The farmers can even supply a little grain for the school feeding program once in a while.

When farmers have a good number of goats and can sell one for good money, we encourage them to buy good water storage tanks. The water in these tanks can last them a long while, even when rains do not come when expected. And when the rains come, we encourage them to harvest rainwater. This has certainly changed farmers’ lives.

Sig tune up and out under

**Host:** Until recently, small-scale farmers in Kenya did not raise many goats. Few households consumed goat milk. But that has changed. I visited a small village in eastern Kenya where farmers are keeping goats–and goat milk is considered a delicacy.

A few years ago, the animal of choice for most farmers in this area was the cow. But cows can’t cope with the prolonged dry season. So switching to goats has made local farmers very happy. One such farmer is Teresia. She gets very excited when she talks about her goats. I met her recently on a trip to Mwingi in eastern Kenya.

farm sounds. Sound of footsteps. Fade and hold under conversation.

**Host:** Here we are in Teresia’s farm, which is about an acre in size. Right beside her own house is a goat house. Teresia, how many goats do you have?

**Teresia:** I have ten goats now: two bucks and eight does. I started with three.

**Host:** That’s quite an increase. What kind of goats do you keep?

**Teresia:** They are cross breeds of a Toggenburg buck and a local doe.

**Host:** How did you start keeping goats?

**Teresia:**  A group of farmers in this village received a Toggenburg buck through the FARM Africa dairy goat improvement project. At the time, very few of us kept local goat breeds, and we knew nothing about the Toggenburg. But we learnt the benefits of cross-bred goats, especially for a dry area like ours.

The project required us to buy a local doe to breed with the Toggenburg buck. I was skeptical about it, but I bought three local does and took them for mating with the male Toggenburg.

Each goat had two kids and I was amazed. They were bigger and stronger than the local goat breed. I sold some after six months and took the females for mating again with the Toggenburg. The next kids were even stronger than the first! And that is how I have been increasing my goats.

**Host:** How do you feed them?

**Teresia:**  I feed them with hay and bush leaves, and occasionally supplement that with animal feeds I buy from an agricultural store. I also give them mineral salt. These supplemental feeds definitely raise the milk yields. When they are three months old, I deworm them. I usually call a veterinarian to treat them when they fall sick.

**Host:** I understand that good housing is very important for goats. What kind of housing must a goat have to stay healthy?

**Teresia:**  First, you must build the goat pen with an elevated slatted floor above their dung. If goats sleep on dung, worms and parasites can easily be spread around the flock, making them sick. I also make sure I clean the goat pen every day.

**Host:** Are they always closed up in the pen like they are now?

**Teresia:**  Not always. They browse on wild trees and bushes outside my compound occasionally. But I avoid letting them mingle with goats from outside because they may catch a disease or mate with local breeds.

**Host:** What are the benefits of keeping goats in this area, compared to other domestic animals?

**Teresia:**  A cow takes longer to mature before it is ready for sale. A cross breed from a Toggenburg takes only six months to mature and you can sell it for about $180 U.S. You can’t even sell a cow at one year old – and if you do, you get little money for it.

Indigenous goats are not large enough to be sold at six months old. Even at a year old, you can only get $25 U.S. for them. And a cross breed can live up to six years if you take good care of it.

**Host:** Are the milk yields from a cross breed higher?

**Teresia:**  Yes, they are. When they get kids, cross breeds can give about two litres of milk a day–one in the morning and another litre in the evening. After one or two months, that decreases to 750 millilitres twice a day. Goats continue to produce milk for several months at that level, which gradually goes down to half a litre a day. By that time, they are ready for the next mating season. Each doe normally gives birth to one kid in a mating season, but some does produce two kids at a time. If you keep offspring from these does, over time, you can have a flock with does that regularly produce two kids at a time.

**Host:** Is goat milk embraced in this area?

**Teresia:**  Goat milk is better accepted than it was a few years back, but many people say that goat milk has a foul smell. But you can prevent that smell by keeping the buck away from the milking and from the milk.

The truth is that the quality of the milk is strongly related to how well you take care of the goats. The smell associated with goat milk results keeping milking does close to bucks. When I started selling goat milk in this area, there were some people who never drank goat milk. But now they drink it. They say they prefer my milk because it doesn’t have a foul smell.

**Host:** Have the goats helped you in crop farming?

**Teresia:**  Yes, in many ways. The money I get from selling goats helps me to pay a labourer to till the farm and buy seeds. I get manure from the goats, do I don’t have to buy it.

**Host:** Do your goats give you enough manure?

**Teresia:**  It is enough, because my planting area is not that big.

**Host:** This work doesn’t seem easy for women. Why did you decide to do it?

**Teresia:**  I find it very profitable. It’s the profit that helps me stay focused and makes me love it.

The goats have been very good for me. We drink the milk at home, and I sell the surplus. From the milk sales, I can buy house supplies. When I am in dire need of money, I can sell a goat or two for school fees or a health need.

I opened a cereal shop not very far from here from the proceeds of these goats. I took a loan and also saved money from selling my goats with my farmers’ group. I bought a car and now I can transport my cereals and my goats to the market for sale.

Most importantly, my three children have gone to school because of these goats. Two girls have completed university and one is now in college. My grandchildren also enjoy goat milk; they are very healthy!

**Host:** That was Teresia, a dairy goat farmer who is raising cross breeds from a Toggenburg male and local does. Now, let’s meet a goat breeder from Teresia’s village.

BRIDGE Music cross fade into farM SOUNDS. Fade and hold under conversation.

**Teresia:**  Here we are on Joseph’s compound. It is a hot afternoon and Joseph is probably taking a nap. Let me try to find him. (CALLING) Joseph, Joseph, your visitors are here.

**Joseph:** (OFF-MIC) I am coming, give me a minute.

Sound of footsteps

**Joseph:** (YAWNING) Please forgive me. (LAUGHING) I am an old man now and with this hot sun I easily fall asleep. Welcome to my compound. As you can see, it is very small, just my house and the goat pen, all on a quarter-acre of land.

**Teresia:**  Joseph, meet Winnie. She is the one I told you would visit today to talk about our goats.

**Joseph:** Good to meet you. I am Joseph and I cross-breed Toggenburg goats with local indigenous goats to get cross breeds. Right now, I have a male pure Toggenburg and two cross breeds.

**Host:** They look very healthy. How much would you sell the Toggenburg for?

**Joseph:** I can’t sell that one right now because it brings in money every day. I am fattening the two cross breeds for the Agricultural Show and they should fetch at least $180 U.S. each. For a goat that’s only six months old, that is a good price.

If you take good care of your goats, they will help you take care of your family. In fact, I have educated two of my six children on these goats. The goats have even won prizes at the Nairobi trade fair. They give a lot of milk if they receive supplemental feed while they are lactating. You can milk a healthy cross breed three times a day. For some farmers, these goats are more profitable than cows. I prefer them.

**Host:** How many nanny goats does your Toggenburg service in one day?

**Joseph:** It can service up to five does if it is well-fed, and perhaps more.

**Host:** What do you feed it?

**Joseph:** It eats a lot of food. I cut and dry grass and leaves for it. Sometimes I let it graze in the field. When fed dry grass, it drinks a lot of water, almost like a fish. But when it eats fresh leaves, it needs much less water. When it is very hot, I provide shade for it. Without shade, it eats very little during very hot weather.

**Host:** How long have you had the Toggenburg goat?

**Joseph:** Since I retired in 2004. I was trained on basic animal husbandry, good housing, and preparing hay before I got the goats.

**Host:** When other farmers bring their does to be serviced, how much do you charge them?

**Joseph:** About half a dollar for a member of the farmer group, but we are raising it to a dollar because taking care of these goats is expensive. Non-members pay double that amount.

**Host:** Would you ever consider raising cows?

**Joseph:** How would I feed them? Goats require less labour and time per head compared to cattle. They eat less and cope better with the environment than cows. They do not get sick so easily, and with the dry season sometimes intermingled with very heavy rains these days, let me stick to the goats. I am very happy breeding these goats!

Music bridge

**Host:** Welcome back. We are learning about breeding dairy goats, and we have heard from a dairy goat farmer and a goat breeder.

So how should you take care of your dairy goats to get the most from them? I spoke to Professor Isaac Sanga Kosgey, an animal breeding and genetics expert. I began by asking him what goat breeds are available in Africa.

**Kosgey:** We can divide goats into three categories. The first category is indigenous goats, which are found with local farmers and are mostly for meat production. We also have local dual purpose goats which provide both milk and meat. Lastly, we have exotic breeds such as Toggenburg, Saanen and Alpine. These are specifically for milk production.

**Host:** You mentioned the Toggenburg. What qualities does it have that allow it to withstand the Kenyan climate?

**Kosgey:** The Toggenburg is originally from Switzerland. It’s vigorous, and it’s a very good forager. This breed is meant for cooler areas, but with good care it does well in Kenya.

**Host:** Do you need to care for a Toggenburg differently than an indigenous goat?

**Kosgey:** All goats, and especially dairy goats, need care in terms of feeding, breeding, disease and pest control, control of other external parasites, plus housing and welfare.

Toggenburgs cannot produce milk if they are not fed properly. They also need to be disease-free, and should not be exposed to the sun for too long. Compared to indigenous goats, Toggenburgs are also very susceptible to pneumonia.

It is important to feed Toggenburgs with a balance of energy foods, protein and minerals. You can use fish meal or legumes to provide protein. You also need to provide adequate forage in the form of grass, such as Napier grass or sweet potato vines.

**Host:** What common diseases affect the Toggenburg and the cross-breeds?

**Kosgey:** The most common ailment in goats is a kind of pneumonia called Contagious Caprine Pleuropneumonia, or CCPP for short. Goats are also infected with tetanus when they are injured from delivering a kid or while in the field.

**Host:** How do you treat these conditions?

**Kosgey:** Treatment for diseases like pneumonia is mostly preventive through vaccination. A veterinarian would give antibiotics to a sick goat if it gets a bacterial infection from a wound.

Another thing to consider is housing. Good housing is essential. It is important to ensure that wind does not blow through goat housing.

**Host:** What else should you consider when providing housing for your goats?

**Kosgey:** The most important thing about housing is to make sure that the animals do not sleep on wet ground, to prevent pneumonia and worms.

You need to raise the goat pen above the ground a little less than knee height. In this way, the goat does not sleep on its droppings or urine. Build the floor of the pen with wooden slats and leave half-inch spaces between the slats so that the droppings can fall between and onto the ground.

You also need to ensure that the goat pen is clean and dry all the time and that there is proper ventilation. Make sure the roof doesn’t leak and that the feeding troughs are clean. Also, separate young goats from adults to avoid the adult goats trampling on the young ones.

Deworming is very important too. It’s good to deworm all animals before mating, and to deworm pregnant does before they give birth. Young ones are dewormed at three months of age when they stop suckling and start weaning. It is also important to deworm before the start of the rainy seasons.

**Host:** What should a farmer do to get the best milk from goats?

**Kosgey:** To get more milk, farmers should separate the kids every other day from the milking goat. This ensures that the mother does not stop milking, as she basically produces milk for her kid.

We also separate the male and female to avoid having the “goaty” smell in the milk. That smell comes from the male goats, who smell very goaty indeed, particularly during the mating season. The odour spreads easily, and can easily be picked up by the milk, which can cause people to reject it.

**Host:** Do you have any last words of advice for small-scale goat farmers?

**Kosgey:** Raising goats is becoming increasingly popular, especially with land becoming scarce and smaller nowadays. In urban areas, the demand for milk is increasing, but there is not enough land for bigger animals like cows.

I would advise many people to go into goat farming. A Toggenburg, for example, can give up to five litres of milk a day, and it’s good quality milk. But above all, it is important to properly care for your animals.

**Host:** Thank you very much. That was Professor Kosgey explaining how keeping dairy goats can be a good idea for farmers in dry areas. We also heard from a goat farmer and a goat breeder.

I will summarize. You must: Feed your animal well, build proper housing, maintain good hygiene, and prevent diseases and parasites by regularly vaccinating and deworming. Also, ensure proper breeding by using healthy males. And finally, raise the young ones with proper care.

## Acknowledgements

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

Reviewed by: Julie Ojango, Scientist, Animal Breeding Strategies, International Livestock Research Institute, Nairobi, Kenya, and John G. Fitzsimons, Associate Professor, School of Environmental Design and Rural Development, Ontario Agricultural College, University of Guelph, Canada

**Sources of information**

Interviews:

Teresia Kyalo, Dairy goat farmer in Mwingi, eastern Kenya

Joseph Mwangangi Mkonzo, Dairy breeder in Mwingi, eastern Kenya

McDonald Mnuve, Farmer’s coordinator in Mwingi.

Interviews conducted on February 9 and March 12, 2015

**Further information:**

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