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# Pack 101, Item 9

Type: Script

March 2015

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**Growing a dry-season sorghum called *muskuwaari* can reduce hunger in the dry season**

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### Notes to broadcaster

*Muskuwaari* is a word in the Fulfulde language which refers to dry season sorghum which is transplanted at the end of the rainy season. Common varieties of *muskuwaari* include ***safraari*, *majeeri*, *burguuri* and *ajagamaari.***

*Muskuwaari* is grown over a wide area stretching from Nigeria to Sudan. In Nigeria, it is called *masakwa*, in Chad, *berbere*.

Farmers transplant up to 10,000 nursery seedlings per hectare in October in the Far North and in two districts in the North region of Cameroon, and yields can reach 1000 kilos per hectare or more. These regions have a long, dry season, lasting seven to nine months. They receive poor rainfall, only 100-300 millimetres per year, with a very high average annual temperature of 32 degrees Celsius. The vegetation is very sparse, with a few trees and scrubby bushes and grasses.

The benefits of growing muskaari include :

* The ability to grow crops on low-lying, heavy, clay soils that are often flooded during the rainy season. *Muskuwaari* is transplanted into vast areas of clay soil called *karal* (plural *kare*) that are difficult to cultivate during the rainy season.
* The availability of off-season labour to help growers complete labour-intensive tasks such as transplanting and land preparation.
* Almost continual year-round production of crops.
* Long-term storage*:Muskuwaari* can be stored for a long time, well into the next rainy season.
* Good profitability: Market prices are very good at harvest (March-May), because reserves from rainy season crops are very low.
* Sustainability: *Muskuwaari* does not deplete the soil and can be grown in the same fields year after year. This may be because annual flooding replenishes soil nutrients.

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 in the script.

You could also use this script as inspiration to research and develop a radio program on sorghum, on other dry season crops, or on other crops suitable for growing in harsh climates in your own area.

If you choose to use this script as inspiration for creating your own program, you could talk to farmers and other experts, and ask the following questions:

* Are there special dry season crops in your area?
* If so, what are the characteristics of the crop that allow them to grow well in the dry season, and how do they benefit farmers?
* What are the challenges associated with this crop, and what solutions have farmers found to deal with these challenges?
* Is there a good market for this crop?
* What other dry season crops are particularly useful to farmers in this area?

Apart from speaking directly to farmers and other key players in the local agriculture sector, you could use these questions as the basis for a phone-in or text-in program.

Estimated running time for this script is 15 minutes, including intro and outro.

**Signature tune**

**HOST: Good morning, dear listeners.Today, we will hear how farmers who grow a kind of dry-season sorghum have succeeded in closing the hunger gap despite a very dry climate. These farmers live in the Far North of Cameroon where the dry season lasts eight or nine months.**

 **It’s very difficult to grow crops such as maize in the dry season in the Far North region of Cameroon. The off-season sorghum which farmers grow here is called *muskuwaari* in the local language.**

 **We are with Silas Moctia, a farmer who has devoted himself to growing *muskuwaari* for about 12 years. Can you introduce yourself to our listeners?**

**SILAS MOCTIA: Hello. I am Silas Moctia, a farmer from Yonkolé, a village six kilometres from Maroua town, in the Far North of Cameroon.**

**HOST: When did you start growing *muskuwaari*?**

**SILAS MOCTIA: I am 65 years old now and I started growing sorghum with my father when I was still a child. I don’t remember exactly how old I was.**

**HOST: You are talking about sorghum. What about *muskuwaari*?**

**SILAS MOCTIA: I started growing *muskuwaari* when I was 12. I abandoned cotton growing for *muskuwaari*.**

**HOST: You say you abandoned cotton for *muskuwaari*. Why? Please tell us more about your choice.**

**SILAS MOCTIA: I used to grow cotton with my dad in my childhood, and followed his system of rotating cotton with cereals.. When I inherited his land, I kept doing the same thing. At the beginning, I was satisfied with this system. But, over time, my satisfaction decreased and it even turned into real discontentment.**

**I was already spending a lot of money on cotton. Sometimes the seedlings did not tolerate extreme droughts, and other times they stopped growing because of floods. When we were not exposed to caterpillar attacks, we had to tackle bird attacks. Over time, my sleep was disturbed (laughter). Every morning when I woke up, I wondered what kind of problem I would come across in my field.**

**HOST: Did you ask for help when you met these problems?**

**SILAS MOCTIA: Of course I asked for help. I visited many extension officers who work at the Ministry of Agriculture and with farmer groups. When I said I spent a lot of money, it is because I was applying their advice. Sometimes I had to pay people to fetch water for the seedlings. I also needed to buy insecticides, among other things.**

**HOST: And how did you quit growing cotton for *muskuwaari*? How did you get to know *muskuwaari*?**

**SILAS MOCTIA: Time was passing and I noticed that my cotton yield was decreasing while my expenses increased. I had no benefits and was working at a loss. At the same time, I could see satisfied *muskuwaari* farmers around me.**

 **I did not switch to *muskuwaari* all at once. First, I tried it on a small plot, while I grew cotton on a larger field I gradually increased the plot reserved for *muskuwaari,* and this is how I finally abandoned cotton for this crop.**

**SFX: SOUND OF FOOTSTEPS. FARM SOUNDS.**

**HOST: Dear listeners, we are in Silas Moctia’s field. We are surrounded by a huge whitish piece of land where lines seems to have been drawn. In fact, it is clay soil which is cracking under the pressure of the drought. You can also see green lines. When you get near them, you can see that these are *muskuwaari* seedlings.**

**SFX: SOUND OF WATER BEING POURED INTO PLANTING HOLE**

**HOST: Silas Moctia has started to transplant his *muskuwaari* seedlings. He holds a clump of seedlings in one hand, and he puts them in holes dug earlier with the other hand. An assistant stands nearby and pours a small quantity of water in each hole before Silas places the seedlings in the hole.**

 **Silas Moctia, you are very busy transplanting seedlings. Where do you get them?**

**SILAS MOCTIA: They come from my nursery, which I prepare towards the end of the rainy season in August. In September, we start preparing the soil by clearing all vegetation with a scythe, burning the residues, and then digging planting holes. This is usually done by the family, because most farmers can’t afford to hire farm labourers. The seedlings grow in the nursery for 40 days, and then in October we transplant the seedlings in the field. The harvest starts by the end of January and I am really satisfied with what comes from this field.**

**HOST: How much land do you use to transplant the *muskuwaari* seedlings and what is your yield?**

**SILAS MOCTIA: I have five hectares of transplanted *muskuwaari*. I harvest an average of 16 bags weighing 100 kilograms per hectare, and a bag costs 10,000 CFA Francs ($18 U.S.) on average. The price varies slightly from one year to another.**

**HOST: You sound satisfied.**

**SILAS MOCTIA: Yes, the *muskuwaari* gives me satisfaction. Not only do I spend less money, but this crop also provides me with food at any moment, even in the dry season because we can eat our fill every day.**

**SFX: SOUND OF FOOTSTEPS**

**HOST: Dear listeners, now we are going to meet Haoua Adji, whose farm adjoins Silas Moctia’s field. Good morning, Haoua. Can you introduce yourself?**

**HAOUA ADJI: Hello. I am Haoua Adji. I am 36 years old and I am a *muskuwaari* farmer in Yonkolé.**

**HOST: Are you happy with the choice you made to grow *muskuwaari*?**

**HAOUA ADJI: Yes, I am really happy. *Muskuwaari* withstands heat, which explains why my family never lacks food. It is difficult to grow maize, millet, rice and other crops during the dry season in this hot, dry climate of ours. This climate is what exposes us to hunger.**

**HOST: *Muskuwaari* is really appreciated here! It seems to have some special properties. We will discuss this with an expert to get more details.**

**SFX: SOUND OF DOOR OPENING AND CHAIRS BEING MOVED**

**HOST: We are at the Institute of Agricultural Research for Development, or IRAD, in the centre of of Maroua. We are with Dr. Venasius Lendzemo, the head of the IRAD centre in Maroua. Venasius Lendzemo, can you describe the special characteristics of *muskuwaari*?**

**VENASIUS LENDZEMO**: Simply speaking, *muskuwaari* is a type of sorghum which is transplanted in the dry season. I say in the dry season because we also have a rainy-season sorghum which is commonly called finger millet or “rain” feterita.

**HOST: What is special about *muskuwaari*?**

**VENASIUS LENDZEMO**: **The main characteristic of *muskuwaari* is that it withstands lack of water very well. *Muskuwaari* is well-adapted to this region’s clay soil, which has very few of the tiny holes through which water can drain. Instead, the soil holds water well.**

 **In this region, the fertility of the soil is less important than its capacity to hold water. The *muskuwaari* plant completes its its growing cycle during the long dry season – from planting to harvest –by using the water held in the clay soil. Everything depends on the capacity of this soil to hold the small amount of water that is available.**

 **During transplanting, the farmer pours a small amount of water in the planting hole before putting the seedling inside. The water stored in the soil enables the seedling to grow easily. The roots of the plant withstand the drought by absorbing water particles which are inside the clay soil. This is an ability that other plants do not always have.**

This ability to withstand water stress allows these soils to be covered with *muskuwaari* from September or October instead of remaining bare. The crop is harvested at the end of January or beginning of February. Since *muskuwaari* does not like too much water, we don’t grow it in the rainy season, and this provides us with space for other crops.

**HOST: Farmers say that *muskuwaari* helps to control hunger. What is your point of view?**

**VENASIUS LENDZEMO**: **Indeed, sorghum is the staple food of people in the Far North of Cameroon.** *Muskuwaari* is fairly resistant to most pest problems, though stem borers can cause significant damage and losses to farmers. **Depending on the variety, it has a fairly high yield and its life cycle is relatively short. The fact that this crop grows in the dry season when other crops have difficulty helps us replenish our food supplies and ensures that food is available at any season. It is true that this region would have faced hunger gaps without *muskuwaari*.**

**HOST:** Dear listeners, today we have learned how *muskwaari*, a dry-season sorghum usually grown on clay soils, can withstand heat and drought and water stress, which strike the Sudano-Sahelian regions of Cameroon. This dry season food helps fight hunger in a region regularly hit by hunger gaps because of the extreme variability in the weather.

## Acknowledgements

Contributed by: Anne Mireille Nzouankeu, freelance journalist, Yaoundè, Cameroon

Reviewed by: Carine Mala, Assistant Professor, University of Maroua, Cameroon

**Information sources**

Interviews:

Silas Moctia, sorghum farmer, October 15, 2014

Haoua Adji: sorghum farmer, October 15, 2014

Venasius Lendzemo, Head of the Regional Office of the **Institute of Agricultural Research for Development, or IRAD, Maroua, Far North region, Cameroon), October 16, 2014**

Carine Mala, Assistant Professor, University of Maroua

 Project undertaken with the financial support of the Government of Canada through the Department of Foreign Affairs, Trade and Development (DFATD)

*This script was written with the support of Irish Aid.*