

# Pack 104, Item 16

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**Using high quality rice seed in northern Ghana**

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**Notes to broadcaster**

Growing rice in Ghana is a big challenge, mainly because of poor quality seed. The demand for rice has recently increased and, to meet this demand, a lot of rice is imported from countries like India, Pakistan, and Thailand. The Northern and Upper East Regions account for about two-thirds of the rice grown in Ghana, but many of the small-scale rice farmers who dominate the local rice industry lack access to good quality seeds.

Most of the rice varieties grown are poor quality and attract low prices. Also, rice production in Ghana is rainfed, and the poor rainfall in recent years has not helped rice growers. Even though there are irrigation facilities spread out across the rice-producing areas, the total amount of irrigated agricultural land in Ghana is still small.

Another challenge is that farmers still practice ineffective farming methods in most parts of the country. For all parts of the rice value chain to function effectively—including growing, processing, trading, and marketing—farmers also need good threshing platforms and good storage facilities. High post-harvest losses and poor milling of local rice are additional challenges. There are some rice farmer groups, but they lack skills in networking, lobbying, negotiating, and advocating for better policies.

In this script, Lydia Ajono looks at the challenges of producing rice seed in Ghana and how farmers are making efforts to overcome these challenges by learning how to use improved rice seed which increases yield and meets the growing market demand for rice in Ghana.

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 your own programming on growing high quality rice seed, or related topics in your country.

Talk to farmers and experts who are familiar with growing rice seed. You might ask them:

What are the major challenges to farmers planting high quality rice seed in this area?

Have some farmers or experts found solutions to these challenges?

If so, could these solutions be used by more farmers?

Estimated running time: 12-15 minutes, with intro and outro music.

Signature tune for 10 seconds, then fade and hold under host

**Host:** Welcome to your favourite farmer’s program. Today’s topic is good quality rice seed.

**Insert voice clip:** Rice is one crop that is universal, because there are rice meals in almost all cultures in the world. That means money for rice farmers. It is the main reason why I grow rice seed**.**

**HOST:** Good seed is vital to success in farming. Today, we will hear from two farmer group leaders—Iddrisu Akolbire from Bolga-Nyariga, and Gilbert Atanga from Yorogo-Kuakua, in Bolgatanga. They will share their experiences with growing rice seed and how they are working with others in using improved rice seed in the region.

We will also hear from Mrs. Benedicta Atosona Gyamfi, a technical officer at the Savannah Agriculture Research Institute, also called SARI, in charge of rice production. She will tell us how she has been training rice farmers on demonstration farms.

Stay tuned.

Signature tune up for five seconds, then fade out

**Host:** I am at Nyariga Junction, a place where many roads meet, linking communities all over the area. I am in a small forested area, which is known by the community as a garden. This morning, women farmers are busy arranging fresh vegetables ready for the market. This is the place in the community where farmers, traders, and other organizations meet.

I will be interviewing two farmers here. The weather this morning is hazy, smoky, and dusty, making visibility very difficult. But farmers are already busy preparing their rice nurseries, and getting ready for a very busy period in the next two or three weeks. Joining me are two farmers, and I will let them introduce themselves.

**Iddrisu:** My name is Iddrisu Akolbire. I am 54 years old, a native of Nyariga and one of the longer serving farmer’s leaders in the community. Currently, I am leading 12 farmer groups which grow rice and vegetables in four communities. I am married with eight children. So I feed 10 people every day in my household. I have four children who are in post-secondary institutions in the cities. This places a big burden on me to explore all possible opportunities in farming to take care of my family needs.

**Gilbert:** I’m Atanga Gilbert, 45 years of age. I am also married, and I have four children. I also feed 10 people in my household, including my wife and three children, my mother, my junior brothers, and their wives and children.

**Host:** What motivated you to focus on rice farming?

**Gilbert:** First, I like meals prepared from rice. Growing rice also gives me extra money to invest in other ventures to support my family. I got attracted to rice farming 17 years ago when the demand for rice in the local market increased. At that time, I was a student and just grew a small amount on my family plot. That year the harvest was so good that it really motivated me to continue rice farming.

**Iddrisu:** For my part, I started growing rice 20 years ago when my other crops starting failing because of poor rains. My main motivation is that I consider rice a “survival crop.” It’s a crop that gives a farmer hope to feed the family throughout the season. My children like to eat rice, so it’s a family staple food. Our traditional millet yields have become poor over the years during the rainy season because of the changed pattern of rainfall. Rice is now an alternative crop for many farmers in the dry season on irrigated lands.

**Host:** You both sound so happy about rice farming. What variety do you grow?

**Gilbert:** My varieties are Jasmine 85, Togo Marshall, and Jet 3. The reason for my choices is very simple—for the market. Current market demand focuses on these varieties, and when I grow them, I will have a ready market and save some for the family. I get more yield from the Jasmine 85 than the others. In fact, the taste of the three varieties is competitive with imported rice, so my children love to eat it too.

**Host:** How about Mr. Iddrisu? What varieties do you plant?

**Iddrisu:** I grow Jasmine 85, TORTs, RR6, and Togo Marshall. Every farmer needs to know the right seed to plant and benefit. For instance, TORTs matures within 90 days. But Jasmine 85 matures in only 30 days. That maturity date requires regular weeding, and ensuring that the irrigation water from the dam enters the rice farm through the canals. It is also important to keep a calendar of when to transplant and apply fertilizer. Finally, the choice of fertilizer is very important.

**Host:** How long have you planted these varieties?

**Iddrisu:** Until we started irrigated farming during the dry season, we always used our traditional rice seeds, which take more than 120 days to mature. These are the red rice, with the local name *Kotorko*, and the short white with the local name *Peilika*. Most of the farmers in this community still plant these varieties, but only during rainfed periods, from June to November.

Right now, I use a rope to ensure the right spacing between and within rows. Some farmers prefer the traditional varieties and believe that they do not do well with this kind of planting. But the changes in weather and in the pattern of rainfall are forcing many farmers to change to the new rice varieties.

**Host:** Gilbert, do you have anything else to add?

**Gilbert:** We plant rice in lowland valleys during the rainy season because, even if there's a drought, the farm will have enough moisture to do well. During the dry season, farmers monitor the water requirements of the rice and, when appropriate, they direct water from the irrigation canals to the rice farm. We can plant both traditional and new varieties as dry and rainy season crops.

**Host:** Let’s talk about rice seed. Where do you get it, or what process do you use to produce your seed?

**Iddrisu:** I have tried to produce quality seed for my next planting for almost eight years, ever since I started using the new rice seeds. As a farmer group leader, I have also encouraged other farmers to use the new rice seeds, which have more benefits than the traditional seeds. The benefits are many, including that they do well with the new planting technique of using a rope line, and that they yield better. This rope method is simply a way to ensure that, when you are transplanting seedlings into rows, you get the correct spacing. In fact, if you plant an acre of the new rice seeds, you might harvest about 20 bags more than other varieties. But if the farmer wants to save seed for next planting, you have to harvest when there is moisture on the stem. At this stage, the seed is healthy.

**Gilbert:** I would say that seed quality is a problem in this part of Ghana. I am not sure of the quality of Jasmine 85 from other farmers because farmers don’t use quality control mechanisms, such as ensuring that the rice is threshed on a platform which doesn’t contain other kinds of seeds. I might pay for the seed thinking it was the right variety, but after planting I discover that I have grown mixed varieties. Mixing varieties reduces the quality of the seed.

**Host:** What practices do you use to produce quality rice seed?

**Gilbert:** Because of the many problems farmers face trying to access rice seed, my fellow group leaders and I have come together to produce rice seed. We grow Jasmine 85, TORTs and Togo Marshall for farmers. The farmer group I am the group leader of has about 100 farmers from five communities. Our goal is for each farmer to grow four acres of rice seed only, and use the rest of the land to feed the family, and to sell to pay school fees.

**HOST:** Where did you get the knowledge and information on the farming techniques that you share with your colleagues?

**IDDRISU:** It is part of the SARI training programs. We learned techniques for establishing nurseries, preparing land, transplanting, applying fertilizers, and managing weeds and water. We also learned about harvesting and post-harvest handling and testing, mainly the germination test.

**HOST:** How has this been beneficial to you?

**Iddrisu:** I have been trying new practices, and I adapted most of the lessons from the demonstration farms. I have also trained many farmers in my community, especially on creating a nursery by using compost manure. Using only compost instead of chemical fertilizer in the rice nursery makes transplanting much easier.

**HOST:** Over the years, the Ghana Rice production program helped farmers understand new methods of growing rice. It’s critical to teach farmers to pay close attention to the characteristics of new rice plants when they are growing in the field. To learn more, we will speak with Mr. Akpalu Besa, a rice production expert, by phone. Welcome to the program, Mr. Besa. How should farmers handle off-types when they are planting the new rice varieties that are promoted by the Ministry of Agriculture?

**MR. AKPALU:** When we say off-types, it simply means that the plant differs in some characteristic from the variety that was planted. The farmer should look for plants that are taller or shorter than usual, or for plants that mature too early or too late, or where the leaf is a different shape or colour, or has a different grain colour.

**HOST:** At what stage should farmers look for these characteristics in rice plants?

**MR. AKPALU:** During the weeding period and when the plant starts tassling. The farmer should also look for basal leaf sheaths which have a different colour from the variety, and any other features which the farmer judges to be different. The farmer should remove all these off-types from the farm.

**HOST:** Why is it important for the farmer to look for and remove these off-types?

**MR. AKPALU:** It is very important to remove off-types because it allows the rice to grow well, and it helps ensure that the farmer produces good quality seed.

HOST: Thank you so much for explaining off-types in rice production and what farmers should do with them.

**Host:** Dear listeners, let’s take a short break. When we come back, SARI’s Technical Officer, Mrs. Benedicta Atosona Gyamfi, will join us to talk about producing rice seed in the Upper East Region.

**SFX:** 20 seconds of music, then fade under voice and out

**Host:** Welcome back, listeners. Tell me, Madam Benedicta, what do you do with the farmers?

**Benedicta:** I work with rice farmers directly to promote quality rice production in the Upper East Region.

The Savanna Research Institute, which we also call SARI, has three main objectives in its quality rice development project. The first one is to increase the yield of rice. The others are to increase market access and to build the capacity of farmers’ organizations.

**HOST:** What kinds of activities do you do with the farmers?

**BENEDICTA:** I introduce new technologies to farmers through demonstration farms. We train selected farmers to do trial planting of a new seed or technology in each community with a farmer organization. We give the farmer the necessary inputs such as rice seeds and fertilizers, and we plough the demonstration farms. We also make power tillers available for farmers at a price. Land preparation is very important in growing rice. Because of that, SARI also supplies farmers with aggregators, which are small hand-operated machines that even the land, which allows irrigation water to reach all plants equally.

Right now, we have 16 community demonstration farms, and we were able to reach so many farmers through these farms. One of the main farming techniques taught at these demonstration sessions is weed management. Farmers are learning a step-by-step method for transplanting rice seedlings in rows with a 20 centimetres by 20 centimetres spacing. This also helps to control weeds before they mature. Farmers also learned how to safely use herbicides at Farmers Day, and this is one of the most important ways of managing weeds in rice production.

**HOST:** How will this process help solve the problem of the lack of quality rice seed?

**BENEDICTA:** The project reached more than 1,000 rice farmers in the Bolgatanga area alone. The goal is to encourage as many farmers as possible to produce high quality rice and use the recommended new rice seeds. SARI will continue to train farmers not only to use the new rice seed, but to one day produce their own rice seed and not depend solely on imported rice seed.

**HOST:** Listeners, this all the time we have. But I want to remind you that farmers just like you are using new rice farming practices and using new rice seeds. They are also making efforts to save some seed for the next season in order to produce high quality rice seed to penetrate a competitive market.

These new practices include: levelling the land with tillage machines, transplanting rice seedlings into rows using a rope method, not mixing varieties, and using new higher-yielding varieties that are well-suited to the new planting techniques and irrigated conditions.

Tune in to this station at the same time next week for another informative program. Bye for now.

## Acknowledgements

Contributed by: Lydia Ajono, Executive Director of Radio Gurune 99.3 FM, and Community Radio Facilitator, Ghana Community Radio Network (GCRN)

Reviewed by: Boubakary Cisse, Rice Seed Expert/Project Coordinator, AfricaRice, Tamale, Ghana

**Sources of information**

Interviews:

* Gilbert Atanga, rice farmer, Yorogo-Kuakua, Bolgatanga, Ghana, interviewed on November 16, 2015.
* Iddrisu Akolbire, rice farmer, Bolga–Nyariga, Bolgatanga, Ghana, interviewed on November 16, 2015.
* Benedicta Atosona Gyamfi, Principal Technical Officer, Savannah Agriculture Research Institute (SARI), Ghana, interviewed on December 19, 2015.
* Besa Akpalu, District Director, Biokoye district, Volta Region, Ministry of Food and Agriculture, interviewed on August 29, 2016.

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