# Pack 103, Item 2

Type: Drama

March 2016

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**When opportunity knocks, open the door wide: Managing pests in cowpeas**

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**Notes to broadcaster**

Cowpea is grown on more hectares than any other legume crop in Ghana, and is the second biggest legume in terms of yield. Most cowpea in Ghana is grown in the northern savannah zone. But cowpea can be grown everywhere in the country.

Cowpea is an important and cheap source of protein for rural and urban families. Indeed, Cowpea is often referred to as "the poor man's meat" because of its high protein content. The potential yield of cowpea is up to 1.5 tonnes per hectare, but the usual yield in Ghana and the rest of West Africa is less than 300 kilograms per hectare.

Cowpea is tolerant of shade and therefore can be used in intercrop with maize, millet, sorghum, and other crops. This makes cowpea an important component of traditional intercropping systems, especially in the dry savannah zone. In these areas, dried stalks of cowpea are a valuable animal feed.

The major constraints to cowpea production in Ghana include insect pests, Striga infestation, diseases, drought, and low soil fertility. Insects and Striga can cause losses of 15 to 100% of yield, depending on the level of infestation and the susceptibility of the variety.

Bushy varieties of cowpea provide forage for livestock as well as grain, while indeterminate or vining varieties provide soil cover, smothering weeds and protecting the soil against erosion. All varieties capture and fix atmospheric nitrogen, which increases soil fertility.

Cowpea is a heat- and drought-tolerant crop. The best times for sowing in northern Ghana are between mid-July and early August during the rainy season, or in October using residual moisture along river banks and other bodies of water. In valleys, cowpea can also be planted in May with the early rains. Between mid-July and early August, well-distributed rainfall is important for the crop to become establish and create pods. After maturity, a dry period is required for drying.

Cowpea provides rural families with food, animal feed, and cash income. Processed products include: cowpea flour, cowpea cake, cowpea fritters, and cowpea chips. These are sold in village markets.

This drama focuses on managing pests in cowpea. It is based on interviews with farmers and experts.

You might choose to present this drama 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 cowpea or similar topics in your country.

Talk to farmers and experts who are growing cowpeas or are knowledgeable about the crop. You might ask them:

Is growing cowpea common in your area? If so, what challenges do farmers face, especially with pests and diseases? Have some farmers devised solutions to these challenges that they could share on your program? What do extension agents and other experts say about these challenges?

Do farmers mostly raise cowpea for home consumption? Is growing cowpea a profitable business in your area? What are the economic prospects?

Estimated running time for the script: 20 minutes, with intro and outro music.

Estimated running time for the script: \_50\_ minutes, with intro and outro music.

**characters**

**afariwa:** Ambitious and hardworking. Determined to enter and win the farmers’ competition. She is the wife of Kojo.

**kojo:** Husband of Afariwa. He is not supportive of his wife’s decision to grow cowpeas.

**yawa:** Kojo’s sister and Afariwa’s sister-in-law. Lost her entire cowpea farm to pest attack.

**Episode 1**

signature tune up, then fade and hold under below

**presenter:** Welcome to this three-episode drama, entitled *When opportunity knocks, open the door wide.* I am your presenter, \_\_\_\_, and I will be bringing you this drama on (name of radio station). After the drama, we will open our phone and SMS lines to talk about managing pests in cowpea. Our numbers for phone calls are \_\_\_\_, and our SMS lines are \_\_\_\_.

SIGNATURE TUNE UP AND CROSS-FADE INTO BELOW

**Narrator:** Determination and hard work never killed anyone. And we must be ready to quickly embrace and give our best to every opportunity that comes our way.Afariwa and her husband, Kojo, are small-scale farmers. She makes a decision that could turn their lives around. But Kojo is afraid to go forward because of how pests destroyed his sister, Yawa’s, farm. Are Kojo’s fears strong enough to make Afariwa change her mind?

Pests are one of a cowpea farmer’s greatest challenges. This drama will help us understand what to expectand how to deal with them.

**SFX:** Afariwa screams so loud her husband rushes out of the hut

**Kojo:** Afariwa, what’s the problem? What’s wrong with you? (Afariwa still screams*)* What's wrong?

**Afariwa:** (exciteD) Did you hear the news?

**Kojo:** How can I hear the news when you grab the radio? Besides, you know I just got back from the farm and I’m preparing to take my bath ...

**Afariwa:** (INTERRUPTING) They just announced that the government will conduct an inspection at the end of the planting season and reward the best cowpea farmer.

**Kojo:** So?

**Afariwa:** Do you know what the reward is?

**Kojo:** (impatient)Why are you beating around the bush? You know I hate it when you do that.

**Afariwa:** (teasing)And that makes me love you more. (laughs)

**Kojo:**(STARTING TO WALK AWAY) I don’t thinkI’minterested anymore. You can keep your news toyourself.

**Afariwa:** (LOUDLY) The government will add the winner’s produce to this year’s agricultural items to be exported.

**Kojo:** (surprised) But how does that affect you? Why are you so excited?

**Afariwa:** My husband, two communities have been selected and ours is one of them.

**Kojo:** I’m still confused. Why are you excited that our community has been selected?

**Afariwa:** I’m going to win this. My farm will be the best farm, and I’m going to start working with the government to export cowpeas. (she claps and CELEBRATES)

**Kojo:** (DISBELIEVING)What?(Laughing uncontrollably)

**Afariwa:**Why are you laughing? Because I said I will be working with the government? Well, my dear, you can laugh all you want. This is going to happen—and then we’ll see if you’re still laughing. (Kojo CONTINUES laughING) I won’t stand here and have you laugh at me.

**FX:** DOOR OPENS AND CLOSES

**Kojo:** (TO HIMSELF)What has gotten into my wife? Why is she saying such things? (Laughs)Imagine ... she’s going to work with the government. She doesn’t even farm on a large scale. She only works on the backyard farm while I work on the maize farm. She must be going crazy (laughs).

**FX**: DOOR OPENS

**Afariwa:** Don’t think that I’m going crazy.

**Kojo:** (startled) Oh, I didn’t hear you.

**Afariwa:** How could you hear when you were laughing at me like I broke a taboo? Listen, my husband, this is an opportunity to change our lives.

**Kojo:** (FRUSTRATED) What are you even talking about? Do you know what it takes to win something as huge as this? My dear, where did you get such an idea? We can’t compare our farm to other farms in this community. Have you seen my friend Kyeremeh and his wife Ama’s big, modern farm? If the government people ask about the best farmers, I’m sure the chief will not even consider any other farms.

**Afariwa:** Don’t talk like that. We can win just as easy as other people. Are we not farmers? Do you think we can’t win because we don’t have a lot of land?

Trust me, my husband. I have some ideas which will help us. You remember that my sister and her husband said we could use their land when they move to the city in three weeks? We can farm on both pieces of land.

**Kojo:** Wow ... it looks like you have already starting planning. (DETERMINED VOICE) But I will not be part of this foolishness. And I will *not* allow you to make a laughing stock of me in this community.

(INCREDULOUS)What do you know about farming? Did you see my sister’s cowpea farm last season? Did you see how she made a big mess of the entire farm? I don’t know if the land she used for cowpeas was cursed, or what. But I will not be part of this shame, and I demand that you stop all this foolishness!

**Afariwa:** (STEADILY) Why is thinking about growing cowpeas foolishness? I will join the farmers’ group and learn all I can. I will get help, and we can work together and change our lives forever.

I don’t think the land or even the cowpeas Yawa planted were cursed. She had issues with pests—*that’s* what caused her to lose her whole crop. I believe we can do a better job with our cowpea farm.

**Kojo:** (DISBELIEVING) *Our* cowpea farm? What are you talking about? We do not have a cowpea farm and we will never have one.

I don’t want to hear any more about cowpeas. If you think you are ready to farm, you can join me on our maize farm and stop your backyard gardening. That is my final word!

**SFX:** DOOR OPENS AND CLOSES LOUDLY

**Afariwa:** (TO HERSELF)Why is my husband so upset about this? Won’t we all benefit if I win? Hmm ... but it’s true ... I don’t know anything about growing cowpeas.

(PAUSE, EXCITED) Yes! I will join the Integrated Farmers’ Organization and get all the informationI need. I will visit Yawa and ask for her help too. I’m sure she must have some experiences to share. Who knows? She may be looking for another opportunity to clear herself from her shame.

SIGNATURE TUNE UP, THEN FADE OUT.

**EPISODE 2**

SIGNATURE TUNE UP AND CROSS-FADE INTO BELOW

**Narrator:** Afariwa’s sister-in-law Yawa has come to visit her on the farm. They are singing as they work and Yawa is impressed with how well Afariwa is managing the farm.

**SFX:** AFARIWA AND YAWA SINGING

**Yawa:**(stops singing and stretches) I’m so tired. We have been working since morning, and I didn’t realize we had done so much. Aren’t you tired?

**Afariwa:** I am, but I can’t afford to stop now.

**Yawa:**My sister-in-law, I know you are determined to win this competition. But that doesn’t mean you have to kill yourself doing it!

**Afariwa:** You don’t understand; this means a lot to me. I have to prove to the whole community—and especially your brother— that I’m a good farmer.

**Yawa:**(laughs) Why are you so bent on proving your husband wrong? I mean, if you are able to grow a good quality crop, won’t he share in the good fortune?

**Afariwa:** I know he will. And by then, he’ll have learned to be on his wife’s side the next time she has a big dream! (both laugh)

**Yawa:**I’m glad we asked the chief to include your farm in the competition. My biggest fear was how we would fight the pests that destroyed my last cowpea farm. It was such a disaster; I lost everything. So tell me ... how have you managed to save your crops from those hungry pests?

**Afariwa:** It is all thanks to the Integrated Farmers Association. I went to see the director, Mr. Aboagye, and told him about my decision to join the competition. He was so impressed that he offered help anytime I need it.

**Yawa:**OK, but how have you managed the pests? On my farm, I thought that everything was under control. And the pests didn’t look harmful at all.

**Afariwa:** As a farmer, you should know better, Yawa.There are many things you have to do to manage pests. For example, you must take time to prepare your land before planting. You should choose land to grow cowpea that is well-drained, and avoid waterlogged land. You can turn the soil with a hoe, harrow or plough the soil, or harrow with a bullock or tractor to improve root growth. But if the soils are fragile and easily erode, don’t use much tillage.

Another thing: you should remove all weeds, stubble, trees, and shrubs, because these can harbour pest insects. All this preparation decreases the pests load on your farm.

Your other mistake, Yawa, was not making time to scout your farm for pests. I remember seeing you on your maize farm, but you hardly made any time for your cowpeas.

**Yawa:**It wasn’t my fault, Afariwa. My family needed the extra food and money, so I had to quickly plant cowpeas to cater for that. I knew that cowpeas could make the land fertile and that they’re very nutritious for the family. And I know they can tolerate a certain level of pests.

But I missed the right time to spray my field with insecticides. And when I finally did, I sprayed so much for two weeks that it caused more damage than the pests.

I spent a lot of money on pesticides and on paying labourers to spray my farm. But then one of the labourers had to be rushed to the local clinic one afternoon because he was throwing up. The doctor ran some tests and told us he had been poisoned. They found traces of pesticide. That was when I realized I was doing things wrongly.

**Afariwa:** Yawa, spraying the farm with insecticides should be your last resort. As I said, it is important to scout your farm. Then you know what kind of pests are present, how many, what damage they have caused, and what level of damage they are likely to cause in the future. With that information, you can decide which actions are best for you and your farm. You should scout your farm regularly. Then, you can identify and eliminate conditions that can predispose the crops to pest attack. When you see major insect pests, monitor how those pests’ populations build up and the level of damage they cause. You have to know when the level of damage is serious enough to justify the expense of using pest control methods.

**yawa:** Which pests should we monitor in cowpea?

**AFARIWA:** You should look for aphids before flowering, thrips and Maruca pod borers at flowering, and pod-sucking bugs when the pods are developing. But remember: just seeing a few pests doesn’t mean that drastic control is needed.

**Yawa:** Do you mean spraying the farm is not a good thing to do? But we have done this for years. How does it suddenly become unacceptable?

**AFARIWA:** Don’t get me wrong. When pests become too much, you have to do something. But before you consider spraying, try using good old practices such as simple hand-picking and using sticky boards to trap the pests.

**Yawa:** What’s a sticky board?

**AFARIWA:** You can make a sticky board by spreading petroleum jelly or used motor oil on yellow plywood. You place the boards to ensure equal distribution throughout the field, but be sure to leave enough distance to prevent the leaves from sticking to the boards. You can also half-fill a yellow basins with soapy water and distribute the basins as a trap evenly through the field

**YAWA:** Why the colour yellow?

**AFARIWA:** Because insects are attracted to bright colours and will fall into the soapy water as they draw closer. There are other things you can do. You can till the soil to interrupt the breeding of pests. Some pests live in the soil and lay their eggs there. So turning over the soil exposes them and destroys their homes.

And sometimes, it’s important not to take action against some insects. Insects like the praying mantis and lady beetles are pest predators and bees are pollinators.

**YAWA:** What if none of these methods work?

**Afariwa:** (LAUGHS) Well, if nothing else works, then spraying insecticide is the right thing to do. But farmers have many options. Don’t forget about things like crop rotation, planting at the right time, growing resistant varieties, planting with recommended spacing, effective and prompt weed control, and prompt harvesting. These are good non-chemical practices that can reduce pest infestation. It’s also important to keep the farm clean by removing dead or infected plant parts and burning or burying them.

**YAWA:** I’m impressed with how much you know, Afariwa!How I wish I knew all that then. I was so preoccupied with my maize farm that I made no time for the cowpea.

**AFARIWA:** I was just like you, Yawa. I was worried when I first saw pests on my farm. So I went to see Mr. Aboagye. He came to check the farm and started talking about IPM.

**Yawa:**IPM? What’s that?

**Afariwa:** (laughs) That was my exact reaction when I first heard of it. At first, I thought he was going to mention some big names of pesticides I couldn’t afford. But he explained to me that IPM stands for Integrated Pest Management. IPM is all about using a variety of strategies to manage pests: things like using appropriate farming practices, planting at the right time, and using safe pesticides as a last resort. He taught me different methods I could use to solve my pest problems. With IPM, a farmer can manage pests effectively and reduce risks to people and the environment.

**Yawa:** Wow, Afariwa ... you really should be working with the extension officers to educate other farmers.

**Afariwa:** Yawa, you talk like you are not a farmer. We don’t have to grow crops, manage pests, and harvest crops at the expense of the environment.

**Yawa:** Really? I guess you didn’t spray your farm then.

**Afariwa:** There was no need. I had already detected the pests and did what I knew was best for my farm.You know that pests attack cowpeas at every stage of growth, right? Depending on the type and number of pests and the severity of damage, you might need to spray insecticide two or three times.

**Yawa:** Really? Lest I forget, I remember you told me that Mr. Aboagye recommended that, if you have to use insecticide, you should spray the farm early in the morning. Why can’t you spray at any time?

**Afariwa:** (LAUGHS)You see why I’ve been asking you to join me at farmers’ meetings? In the morning, the flower is open and this makes it easier for the cowpea plants to absorb the chemical and effectively kill the pests. You can also spray late in the evening with a knapsack sprayer. These are also the times when most insect pests actively feed, so you will get the best result from using contact insecticides. These are insecticides which are toxic to the pests on touch.

**Yawa:** OK, I understand now.

**SFX:** SOUND OF THUNDER

**Afariwa:** I smell the rain; we should hurry home before we get soaked.

**Yawa:** Alright. (exciteD)I can’t wait for the government officials and the entire community to finally see your cowpea. I think you will win! You have taken all the right steps and your farm has improved so much!

SIGNATURE TUNE UP, THEN FADE OUT.

**EPISODE 3**

SIGNATURE TUNE UP AND CROSS-FADE INTO BELOW

**Narrator:** You never know when good news will meet you. So you should always be prepared.

As Afariwa was heading home from the market square, she met the chief’s messenger. Over the last few weeks, government officials, agricultural extension officers, and the traditional council had inspected the competing farms and chosen a winner. Because of her hard work and dedication, they chose Afariwa as the best cowpea farmer. She runs home to tell her husband the good news.

TRANSITIONAL MUSIC

**Afariwa:** Kojo! Kojo! You need to hear this. Kojo! Kojo!!

**FX:** DOOR OPENS. SOUND OF RADIO.

**Kojo:** Afariwa! I just heard your name announced on the radio as the best farmer. You have been chosen, my wife! We made it!

**Afariwa:** Wait, Kojo, did you say *we* made it? You are mistaken, my dear. *I* made it. In fact, your sister and I made it.

**Kojo:** (apologetic) Don’t be like that, Afariwa. I always knew you would win. I saw your dedication to your farmers’ meetings and how you carefully followed every lesson to the word. I’m so proud of you!

**Yawa:** (JOYFUL, COMING ON-MIC) Afariwa! Oh, my sister-in-law, I rushed here as quickly as my legs could carry me. I was in the kitchen when my son came shouting your name. As soon as I heard the news, I dropped everything and ran. Congratulations!

**Afariwa:** Thank you, Yawa. But don’t forget that *we* won.

**Kojo:** Yes, we won.

**Yawa:** (TEASING) Oh, your husband, my brother, is finally on your side?

**Kojo:** I have always been on her side! (all laugh)

**Afariwa:**The chief summoned me to the palace. He said I should be there early in the morning to meet the government officials.

**Kojo:** I know you took some precautions before starting the farm, and I noticed you never used insecticides when you saw pests. How were you able to manage them so well without your yields being affected?

**Afariwa:** The first step was to plant healthy crops. I chose good seeds without damage holes or wrinkles. I learnt a lot about the varieties of cowpea I could plant and which type was resistant to the pests in our community. I removed all weeds because they can harbour pests. And I kept the farm clean by removing infested parts of plants and cleaning all my tools regularly. You have to pay attention to all these things or you get trouble.

**Kojo:** Afariwa, my wife, all your efforts to manage pests and weeds paid off. I will certainly do the same with our next cowpea crop. And all our other crops! I have decided we will work together on your cowpea farm next season.

**Afariwa:** Next season? I’m glad to hear you say that.

**Yawa:** Don’t forget me when the government officials come.

**Afariwa:** How could I ever forget you? In fact, we will be sharing the profits together.

**Kojo:** (clears his throat) Will I be sharing in the profit?

**Afariwa:** (SERIOUS, BUT TEASING) Now tell me, why should you? Didn’t you speak against the idea? I will have to sleep on the issue before I decide what to do.

**Yawa:** Please, Afariwa, don’t be too hard on your husband. I know he can be very stubborn. But please forgive his strong-headedness. I’m sure he’ll always be on your side from this day onwards.

**Kojo:** Oh yes, I promise to be.

**Afariwa:** Of course you will be a part of the profit. You are my husband and nothing can change that. (all laugh)

SIGNATURE TUNE UP AND OUT

**PRESENTER:** That is the conclusion of*When opportunity knocks, open the doors wide*. Thank you for listening. We will now open our phone and SMS lines. With us today is (name of expert). He/she can answer your questions about managing pests in cowpea and about good practices that can help. Our phone numbers are \_\_\_\_ and our SMS lines are \_\_\_\_.

## Acknowledgements

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Reviewed by: Francis Kusi, Research Scientist (Entomologist), Council for Scientific and Industrial Research (CSIR) and Savanna Agricultural Research Institute (SARI), Tamale, Ghana

**Sources of information**

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Interviews: Mr. George Akrong Morton, Programs Manager, Farm Radio International, Ghana, October 15 and October 21.

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