

# Pack 109, Item 3

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***Kuapa, nea ofo dua pa na yepia no* (Help is given only to those who make an effort): Farmers try no-till farming in Ghana’s Ashanti Region**

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**Notes to broadcaster**

Conservation agriculture, or CA, offers simple practices that farmers can use to address the negative impacts of climate change and learn how to “farm with nature.” This might involve adjusting or changing traditional ways of farming to take maximum advantage of the sometimes little or erratic rain and other water available for crops.

Many small-scale farmers think CA can only be understood and practiced by educated people. But CA is suitable for farmers with any level of education.

Important practices in CA include minimal disturbance of the soil, crop rotation, and maintaining soil cover with mulch and living plants throughout the year. For resource-poor farmers, CA involves minimal financial input, including less dependence on chemical fertilizers.

This script highlights the experiences of farmers living and farming in the Amanchia area of the Ashanti Region of central Ghana. These farmers are practicing no-till farming and other CA practices with the support of Dr. Boa and other workers at the No-till Centre in Amanchia. The farmers share their challenges and achievements, as well as their knowledge of these practices. The script also highlights how the farmers deal with pest infestations in seedlings, and provides information on how they manage their farms while practicing no-tillage and other CA practices.

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 conservation agriculture or similar topics in your country.

Talk to farmers and experts who are practising conservation agriculture or are knowledgeable about this type of farming. You might ask them:

* What are the local farming problems that no-till or reduced tillage could address?
* Have farmers in your area been successful with no-till or reduced tillage?
* What are the barriers to adopting minimum tillage and other conservation agriculture practices in your area, and how can these be addressed?

Estimated running time for the script: 15 minutes, with intro and outro music

CHARACTERS:

Hamdia Hawah Mohammed: Main host

Abena Danso Dansoa: Field host

Dr. Kofi Boa: Founder and Director, Centre for No-Till Agriculture

Kwami Anane, farmer

Akua Abrafi, farmer

**HAMDIA:** Hello, my name is Hamdia Hawah Mohammed, and I welcome all my listeners to *Farm broadcast*. Today, we are going to be discussing no-till farming and planting through mulch—two important aspects of conservation agriculture, also called CA. We will also be talking about pest control in seedlings in the context of CA.

Today’s broadcast is special because we are taking a live feed from Abena Danso Dansoa, who is in the field to bring us live interviews from the Centre for No–Till Agriculture, located in a small town called Nkawie in the Ashanti Region of central Ghana.

**SFX:** Beep to indicate that the phone line is being used.

**HAMDIA:** Hello, Abena, can you hear me?

**ABENA:** Yes, Hamdia, loud and clear.

**HAMDIA:** Great, you are live on *Farm broadcast*. My listeners and I can’t wait to hear from workers and farmers at the No-till Centre.

**ABENA:** Yes, Hamdia, we are at the No-till Centre in Amanchia, a small village in Nkawie, and I’m thrilled to see a vast piece of land filled with different types of crops. Can’t wait to have a bite of every crop grown here. (ALL LAUGH)

I am here with Dr. Kofi Boa, founder and director of the centre. He is ready to share his experience with us. And some farmers living in and around Amanchia have also gathered here to interact with us.

 But before that, I would like Dr. Boa to briefly explain no-till farming and other CA practices, like planting through mulch and not burning crop residues.

**HAMDIA:** Thank you, Abena. Dr. Boa, you are welcome to *Farm broadcast*. My listeners and I are grateful to have you on air.

**DR. BOA:** Thank you. I will start by explaining no-till farming as planting crops on your farmland year after year without tilling or disturbing the mulch-covered soil.

**ABENA:** Good.

**DR. BOA:** In conservation agriculture, not burning residues means that, after the harvest, farmers **leave all residues on the field to decompose** and serve as nutrients for the soil. These residues are more beneficial when they stay on the farm than when they are burnt.

Planting through mulch means planting your seeds through the organic mulch spread on the field. Spreading organic mulch saves labour on weeding and benefits plants by preventing most weed seeds from growing. Mulch keeps the soil cool and moist, reducing the need for watering. The mulch decomposes slowly, releasing nutrients into the soil. Farmers in this area consider these farming practices as one, and call it *proka* in the local language [*Editor’s note: Proka is a word in the Twi language which means “leave to rot.”*]

**HAMDIA:** Thank you, Dr. Boa, for explaining these terms. Are these the only type of farm practices you teach farmers who visit your centre for help?

**DR. BOA:** Not at all. We also teach farmers how to benefit from intercropping and crop rotation, and other practices that often accompany CA, including pest control in seedlings, and reducing the use of chemicals.

**HAMDIA:** Great. But before we go into the details, Abena ...?

**ABENA:** Yes …?

**HAMDIA:** I would like to know the type of practices the farmers were using before they adopted no-till farming.

**ABENA:** All the farmers here say that they used to clear their land and burn the crop residues. Locally, they called this practice *m3hye* [*Editor’s note: This is a Twi word which literally means “I will burn.”*]. Mr. Anane here has something to say about this.

**KWAME ANANE:** Thank you, madam. My name is Kwame Anane, and I am a farmer who grows cocoa, maize, cassava, plantain, and other crops. *M3hye* involves burning residues on the farm so that the farmland can be easily cleared for planting. I used to do this practice before I met Dr. Kofi Boa, who taught me *proka*.

**ABENA:** Good, thank you, Mr. Anane. Hamdia, kindly note that *proka* includes planting through mulch, no-till farming, and not burning residues.

**HAMDIA:** Yes, Abena, understood. What are some of the challenges farmers face in practicing *proka*?

**ABENA:** Mr. Anane?

**KWAME ANANE:** *Proka* is slow, but it benefits me more than *m3hye*.

**ABENA:** Akua Abrafi is one of the other farmers who joined us here today.Do you have something to say to this question?

**AKUA ABRAFI:** *Proka* is slow and weeding is very difficult for me, so I need more hands, more labourers to work.

**HAMDIA:** Thank you, Abena, and my lovely farmers. Okay, listeners, these are some of the challenges that farmers face when using these CA practices.

Let’s go on a short break. When we return, we will find out how they manage these challenges. But before that, let’s hear some quick comments from other farmers about the challenges they face practicing *proka*.

**SFX:**Beep, THEN play vox popS WITH BEEPS IN BETWEEN EACH VOICE.

**VOICE 1:** My name is Akua Afriyie. I grow pepper, plantain, cassava, and maize. *Proka* is difficult because it makes my hands dirty. I get a lot of cuts because it requires a lot of working with my hands. It is even more difficult when there are trees on the farmland.

**VOICE 2:** My name is Ama Fosua, from the village of Seidi. I grow cocoa and pepper. *Proka* is challenging because it takes a lot of painful effort to uproot or remove trees and branches, break them down into pieces, and leave these residues on the soil. But it is beneficial because it stops weeds from growing when it rains and it keeps the land moist.

**VOICE 3:** My name is Abena Bio from Seidi. I grow garden eggs and tomatoes (*Editor’s note: Garden eggs are a type of eggplant that is used as a food crop in several African countries. They are small, white fruits with a teardrop or roundish shape that are valued for their bitterness*.] I burn residues and I don’t practice *proka*.

**VOICE 4:** My name is Alex Mensah, and I grow plantain, cocoa, cassava, maize, tomato, and garden eggs. *Proka* is slow, but it benefits me now more that burning residues. Things move fast when you burn the residues, but the consequences come later and it brings you down. Now I don’t need to weed too much because I cover my land with a cover crop called *mucuna* (*Editor’s note: A crop whose scientific name is* *Mucuna pruriens.*]

**SFX:**A few seconds of music, then the host returns.

**HAMDIA:** We are back and you are listening to Hamdia of *Farm broadcast* bringing you live feed from Amanchia in the Ashanti Region. Our field host is on the line to bring us more interviews.

 Hello, Abena.

**ABENA:** Hello, Hamdia.

**HAMDIA:** Dr. Boa, can you share your thoughts about the vox pops we just played?

**DR. BOA:** Farmers find it difficult to convert from conventional farming to no-till farming because they believe it is labour-intensive and more difficult to practice. This is because small-scale farmers in this area do not have access to no-till planters or machinery to support their farm work. The tools they have access to are the cutlass, hoe, sickle, etc.—and it takes longer to clear the vegetation so that you can uniformly spread the crop residues when you only have these tools. So they believe that burning the residues will save them time and money.

But their biggest problem is how to plant through mulch if they don’t burn the farm. Farmers also feel that they need more labourers in order to properly practice no-till farming. We encourage them to come for training in order to learn how to practice no-till. This is because, in addition to practising no-till farming, we encourage farmers to clear their farmland with the intention of breaking down the residues into pieces. That way, they can plant through the mulch-covered field immediately rather than waiting for the residues to decompose before planting.

But,in spite of the slowdown it causes them, farmers realize in the end that using these practices saves them time and money. This is because, in the long run, they experience many benefits. The residues protect the soil from sunrays, they protect the topsoil from being washed away by the rains, and, if the residues are broken down well, they serve as nutrients for the soil—which enables farmers to increase their crop yield.

 Their crops also grow well because the roots don’t encounter the hardpans that are created by frequent tillage.

 Burning residues on farmland makes it easier for farmers to access their land for planting. But it creates more problems in the end. The topsoil gets washed away by the rains, and the soil loses a lot of nutrients, which results in reduced crop yields. Farmers end up losing a lot of money and resources when they have to manage the problems that come with burning residues. If the crops do not grow well, farmers may lose their income for the whole season.

**HAMDIA:** So are you saying that the benefits of no-tillage and other CA practices outweigh the challenges?

**DR. BOA:** Exactly.

**HAMDIA:** Kindly explain the term you just used—hardpan.

**DR. BOA:** Continually tilling the soil causes it to form a hard layer just below the depth of the tillage. This is often called a hardpan. Roots cannot easily penetrate this hardpan, which also limits the movement of water, and ends up producing weak plants or seedlings. This is a good reason why we advise farmers to practice little or no tillage on their farms.

**HAMDIA:** Thank you, Dr. Boa. Do you have access to the appropriate hand tools to plant through mulch?

**DR. BOA:** Here at the No-till Centre, we have access to no-till planters. But we advise most small-scale farmers in this area to use a cutlass, because they can easily buy them in the market.

**HAMDIA:** Abena, let’s move on to another subject. I want to hear from the farmers. When farmers leave crop residues on their field, the residues can sometimes harbour pests. What kind of pest problems do farmers who use no-till face when they plant seedlings?

**ABENA:** Okay, Hamdia, I am going to start with Akua Abrafi. What kind of pest problems do you face with seedlings?

**AKUA ABRAFI:** Sometimes my seedlings are attacked by stem borers or crickets.

**ABENA:** And what practice do you use to manage it?

**AKUA ABRAFI:** When I plant, I use an insecticide to spray the residues and the pests run away. I also use a rope to draw lines, so that I can plant in rows. This helps me to keep my seedlings healthy so they are not as vulnerable to pest attack.

**KWAME ANANE:** I practice intercropping to help fight pests.

**ABENA:** Hamdia, it seems to me that pest infestation is one thing that all farmers have to deal with. And the list of pests goes on, from crickets to stem borers and red ants who feed on pepper seedlings to armyworms, and more. Akua Afriyie says that, when she plants her peppers, the seedlings are usually attacked by fungi or moulds. She usually sprays them with *alata samina*, a locally-made black soap. [*Editor’s note: Alata samina is a Ghanaian soap that contains red palm oil, coconut oil, roasted plantain skins, roasted cocoa pods, sea salt, and either one or both of shea butter and cocoa butter.*]

**HAMDIA:** Wow, Abena, that’s a very interesting contribution.

**ABENA:** Yes, Hamdia. And others like Akua Abrafi use an insecticide.

**HAMDIA:** Well, thank you for the information, Abena.

**ABENA:** You are welcome, Hamdia.

**HAMDIA:** My next question goes to Dr. Boa. How do you suggest that farmers address these challenges?

**DR. BOA:** Our philosophy is that farmers should introduce companion crops into their farms. These are plants that repel the pests that might attack neighbouring plants. Crop rotation is also a good farm practice that helps to reduce the risk of pest infestation. Or we suggest that they effectively knock down the pest with the right chemicals and then don’t use them again.

**ABENA:** Is it advisable for farmers to use chemicals, or poisons as farmers call them, to deal with pest infestation?

**DR. BOA:** We ask farmers not to use too much chemicals on the crops. We don’t use pesticides at the centre, and we advise farmers to reduce the use of external inputs like pesticides and fertilizers. We ask them to consider the crops as humans, who take medicine only when they are sick and have been diagnosed by the doctor. Thus, farmers should only use the recommended kinds of chemicals when their seedlings have been heavily infected and diagnosed by a crop specialist or extension agent from our centre or from the Ministry of Food and Agriculture. The farmer should then follow and apply the prescribed solution at the prescribed time. Once the situation is under control, the farmers must stop using the chemicals. This will ensure that farmers produce healthy crops which are fit for human consumption.

**HAMDIA:** Thank you, Dr. Boa. Dear listeners, we are going on a short break. When we return, we will hear from our farmers again. You are listening to *Farm broadcast*, and I am your host, Hamdia, co-hosting with Abena. Stick and stay and we will be right back.

**SFX:**A few seconds of music, then the host returns.

**HAMDIA:** We are back, listeners, and you are listening to *Farm broadcast*, the best farmers’ program in town. I’m your host, Hamdia, working together with Abena, who is bringing us live feed from farmers and workers at the No-till Centre at Amanchia, in the Ashanti Region of Ghana. Don’t touch that dial.

Abena, my last and final question goes to all the farmers: How has no-till farming or *proka* benefited you?

**AKUA ABRAFI:** I would like to say that *proka* has helped me a lot. I am not the richest, but I am very happy because I don’t have many problems on my farm.

 Thank you, Akua Abrafi. Mr. Anane?

**KWAME ANANE:** I used to burn residues on my farm until I met Dr. Boa, who taught me about no-till farming and all the other conservation agriculture practices. At that time, my land was hard and my profit was low, but no more. The practice has increased my yield, which has doubled every year. I recommend that all farmers should adopt and practice *proka* for a better life.

**ABENA:** I will also add the voice of my silent contributor, Ama Fosua, who is too shy to speak into the microphone. But she wants all our listeners to know that *proka* is beneficial because it stops weeds from growing when it rains and because it keeps the land moist.

(PAUSE) I say a big thank you to all the farmers gathered here for contributing to the success of this program. And I appreciate you, Dr. Boa, for opening the doors of your centre to us. Please clap for yourselves.

**SFX:** cheers and claps from interviewees

**ABENA:** Thank you, listeners, for being part of this episode of *Farm broadcast*. My name is Abena Danso Dansoa and I’m your field host for today’s broadcast, bringing you live feed from Amanchia in the Ashanti region.

**HAMDIA:** And I am Hamdia Hawah Mohammed, your main host for today’s program. Don’t miss *Farm broadcast* next week, same day, same time. Tell a friend to tell a friend to tune in to *Farm broadcast*. Bye!

**SFX:** SIGTUNE UP AND HOLD, THEN OUT

## Acknowledgements

Contributed by: Abena Danso Dansoa, script writing and research consultant, Eagles Roar Creatives

Reviewed by: Kofi Boa, Founder and Director of the Howard G. Buffett Foundation Centre for No-Till Agriculture.

**Sources of information**

Interviews:

Dr. Okuani Kofi Boa, Founder and Director of the No-till Centre at Amanchia.

Fidel Apraku Gyeu Baafour, Technical officer, No-till Centre.

Kwame Anane, farmer.

Alex Mensah, farmer.

Akua Abrafi, farmer.

Abena Bio, farmer.

Ama Fosua, farmer.

Akua Afriyie, farmer.

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