

# Pack 105, Item 4

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# External parasites of chickens: Impact and management

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### Notes to broadcaster

In Mali, most people who live in rural areas rely on rainfed agriculture and keeping livestock and poultry. They raise poultry with traditional methods, and this has always helped support many families. Nowadays, with the great experience they have gained by dealing continuously with poultry diseases and external parasites, some village farmers give advice to other farmers to help them take care of their birds.

One of the major challenges facing poultry farmers is external parasites. These parasites attack adult chickens, and attack chicks when they are only a few days old, and can die more easily. The treatments that farmers use for these parasites include products which are widely available, but which are not necessarily recommended by experts.

In this script, we meet Adama Sacko, a farmer who raises poultry in the village of Balandougou, in Kayes, the first region of Mali. Mr. Sacko manages external parasites in chickens with anti-mosquito products, diesel oil, and kerosene. But specialists do not recommend these types of products, as we will hear from Mrs. Coulibaly, an expert teacher in a veterinary school.

Mrs. Coulibaly suggests a number of effective products for treating external parasites. She also urges poultry farmers to apply hygienic measures, such as regularly cleaning and disinfecting henhouses.

You could present this script as part of your regular farmer program by 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 use it to produce your own script on the treatment of external parasites in your country.

Talk to farmers and experts who raise chickens and who are knowledgeable about these birds. You might ask them:

* What is the importance of poultry farming in your area?
* Which external parasites are there in your area? Are they common? Do they cause serious problems?
* What solutions have farmers and experts found against external parasites?

Estimated time for the script, including intro and outro, is 20 minutes.

**HOST:** Good morning, dear listeners. This morning, we will learn how to cope with external parasites in chickens. These are creatures such as fleas, lice, and ticks.

We will be talking with Mr. Adama Sacko, who grows crops and raises chickens in Balandougou. Balandougou is a small village in the county of Oussoubidiagna, in the first region of Mali.

FARM SOUNDS: CHICKENS, CATTLE

**host:** We are in a small village surrounded by millet fields. We can see a few mud houses in the distance. In the surrounding fields, farmers are working with millet straw. On the other side of the village, it’s quiet. Children are playing in the road. We are here to meet a chicken producer to ask him about external parasites of chickens.

Good morning, Mr. Sacko.

**Adama Sacko:** Good morning.

**HOST:** Can you introduce yourself to our listeners, and tell them what you do?

**Adama Sacko:** Good morning. My name is Adama Sacko. I live in the village of Balandougou, and I am a crop farmer. Apart from farming, I do something else. In this country, it’s difficult to make a living with just one job. That’s why it is always good to work in different areas.

**HOST:** What is your other job?

**Adama Sacko:** Like most farmers here, I raise chickens and guinea fowl. I raise all breeds of chickens except for those coming from Western countries. I don’t like those ones very much.

**Host:** Today, we are going to talk about external parasites, which are tiny creatures that can be bothersome to chickens. As a farmer, can you tell us about these parasites?

**Adama Sacko:** I know some of the creatures which affect chickens, especially those red parasites called fleas, or *N’dèlè* in the Bambara language. Fleas live on tree branches where chickens spend the night. They are very dangerous parasites as they can wipe out a whole flock.

**HOST:** Your chickens spend the night on tree branches?

**Adama Sacko:** Some of them, but not always. This parasite likes places where chickens sleep, such as henhouses or trees. They can completely suck the blood of chickens. They also live on walls, in the mortar between brick, and in tree bark, and they come out during the night when chickens sleep. They attack chickens on their legs and thighs. When you look closely at a tree located near a henhouse, you will see them. To kill them, it is better to apply your treatment during the night.

**HOST:** Why should you apply the treatment during the night?

**Adama Sacko:** That’s when they leave their nests and attack chickens. If you go into a henhouse during the day, you won’t see anything.

There is another small white parasite called the chicken louse, or *chè-gnimi* in the Bambara language. This parasite is really small. It waits on newly-laid eggs, and then gets into the mother bird’s feathers. When this happens, you must treat the chickens immediately. If not, it bothers the hens a lot and they abandon their eggs. The chicken louse is barely visible to the naked eye because it is really tiny. It can only kill chicks which are a few days old. It doesn’t kill adult birds.

There is another parasite that we call a tick, or *trèfin* in the Bambara language. It is black, and also tiny. It grows slowly under a chicken’s wings, thighs, and in all the hidden parts of its body. It attacks poultry in the same way that parasites attack oxen and cows, that is, it stays permanently under the feathers unless you kill it. If you don’t kill it, it never leaves the chicken. It’s a very dangerous parasite because it very quickly kills chickens by sucking their blood.

**HOST:** I understand that these parasites strongly affect the poultry farming on which you rely so heavily. But can you tell me where these harmful creatures come from?

**Adama Sacko:** I ask myself a lot of questions about this. Sometimes, I wonder if they come from droppings. If you build a new house for your chickens, you won’t see any parasites at first. But as the henhouse gets old, you see parasites everywhere.

**host:** What about the parasites on trees? Where do you think these come from?

**Adama Sacko:** Chickens that spend the night on trees leave droppings on branches or under trees. In the morning, if you don’t sweep the place, you will have difficulties walking there. The droppings stick to trees up to the rainy season, when rains wash them away. I think that the abundance of droppings could be the source of these parasites.

**HOST:** I interviewed a veterinary technician who is also a poultry farmer. He said that we should sweep the henhouse every morning and disinfect the equipment. What do you think about that?

**Adama Sacko:** Yes, he is right, but we farmers know things experts ignore. Their rules don’t work all the time. For example, he told you about equipment. But we don’t have any equipment, and we raise our chickens outside. Their research doesn’t take that into account.

**HOST:** Can you tell me how you treat parasites found on trees, eggs, and in henhouses?

**Adama Sacko:** Personally, I treat them with diesel oil. In the past, I used to treat chicken lice with a product called *Timor Rambo*. But I noticed that the product was destroying all my poultry, so I stopped using it and continued with diesel oil.

**HOST:** How do we know if a chicken has a parasite, and what damage can occur if parasites are not treated?

**ADAMA sACKO:** There are particular symptoms for each of these parasites, which you can see clearly on the chicken. When fleas show up on a chicken, she will start losing weight slowly until she has no more strength. This will kill her, unless you treat the parasite within 30 days.

As for the chicken louse, you can tell that the chicken has it by the way she behaves when she lays eggs. Whenever she sits on her eggs, she will stand up just a few minutes later and run around trying to remove the parasites from her body with her beak. She can’t stay still, and she almost becomes mad. This parasite doesn’t kill the bird, but it bothers it a lot. The parasite disappears after some time, even without treatment.

The tick is the most dangerous. You can recognize it right away by looking at the chicken. She loses weight and does not move much or feed herself. Ticks are very dangerous, and if you don’t treat the chicken within a few weeks, she will die.

**HOST:** Are there any experts in this village, or places where you can get products for poultry?

**ADAMA SACKO:** No, we don’t have any such experts, but there are street vendors who sell products and who over time we have started calling veterinarians. When my younger brother travels to the neighbouring village for the weekly market, I give him money to pay for the products I need.

**HOST:** Do you trust street vendors who transform themselves into veterinarians?

**Adama Sacko:** There is only one street vendor who I trust, and I know he has limits. But he helps me a lot. If you want, I can take you to his place so that you can talk.

**HOST:** I would be pleased to meet him, but let’s continue our discussion for the time being. What is the impact of parasites on your poultry business?

**Adama Sacko:** These parasites are so harmful that they can destroy your business. You must treat them *before* they cause harm rather than after. If you don’t treat them before, you will just watch helplessly and not be able to save your birds.

Poultry farming is more important than you think. For example, there is a man in my village whose name is Oumou Fah. He has thousands of guinea fowls and he told me he went to Mecca thanks to his income from selling guinea fowl—and he sent his mother and his brother there too. I should add that Oumou has equipment, including two incubators for hatching eggs.

**HOST:** Do consumers dislike hens or roosters infected with parasites?

**Adama Sacko:** Customers who don’t know much about the poultry market don’t notice these details. Chickens or roosters infected with parasites are not as heavy and their meat has less fat. But well-informed customers know that, if you cook these birds, they won’t taste good.

**HOST:** Thanks a lot for your contribution. Could you take me now to the street vendor?

**Adama Sacko:** Ok, let’s go.

**SFX:** SOUND OF FOOTSTEPS ON DRY GRASS

**Adama Sacko:** Here we are. He lives here. Can you see his house and the big table where he sells his medicine?

**SFX:** A DOOR OPENS AND THE SELLER COMES OUT. FOOTSTEPS OF SOMEONE MOVING TOWARD ADAMA AND THE HOST.

THE HOST, ADAMA SACKO, AND THE STREET VENDOR GREET EACH OTHER

**Kanté:** Please, have a seat.

**HOST:** We are producing a radio program on external parasites in chickens, which is why we are here today to see what you do. But, before going into details, please introduce yourself to our listeners.

**KANTÉ:** My name is Moussa Kanté. I farm and raise poultry here in Balandougou. I am also the representative of veterinary services for villagers who raise poultry. I am in charge of monitoring and controlling livestock farming in this village. In a way, I am the adviser of each livestock farmer here.

SOUND OF SMALL DRUG BOTTLES BEING ARRANGED ON THE TABLE

**host:** Did the village or an NGO designate you for this occupation? And have you been trained for this?

**Kanté:** Some things just happen naturally, and this is how it happened in my case. It’s a passion for me, and when I discovered its usefulness, that is how I became a successful poultry farmer.

At one point, I had more than 300 birds. With this many birds, it was impossible to avoid diseases. Because we didn’t have any livestock experts in the village, I learned slowly how to treat diseases with products I bought at the weekly market.

At the beginning, because I hadn’t mastered the correct dosages, the drugs caused some problems on my farm. But I gradually learned to control everything, thanks to advice from veterinarians I met in town.

I remember that one day I treated about ten chickens with a drug called oxytetracycline 10%. Just two hours later, they were all dead. Do you know why? In fact, I should have used oxytetracycline 5% twice a day for adults, and once for chicks.

But now that I’ve had some small trainings, I won’t make this type of mistake anymore. Today, I have almost become like a veterinarian who farmers in this village call on whenever they need treatment for their birds. This is life; you learn things from your experiences.

**SFX:** KANTÉ LAUGHS LOUDLY. SOUND OF HIS HAND SEARCHING DRUG BOXES.

**host:** Which remedy do you use to fight external parasites in chickens?

**KANTÉ**: Here, we use only one remedy for almost all poultry and livestock diseases. But the doses vary, depending on the diseases and type of animal. This remedy is called Alben 300 mg. It is a drug which is available everywhere in markets and from street vendors like us.

But as far as external parasites are concerned, there are various very efficient powders you can buy at the market to treat them. But now farmers think they have found a solution for parasites. Most of us use anti-mosquito products such as Rambo brand and others to neutralize parasites. Other farmers use diesel oil or kerosene to fight them. Personally, I haven’t tried the anti-mosquito products, or the diesel oil and kerosene, though people say these are very efficient against parasites. Experts haven’t told us yet if these products can cause other problems, but we need to pay more attention to this.

**HOST:** Thanks a lot, Mr. Kanté. Dear listeners, we are nearly at the end of our program, but before closing, we are going to hear the opinion of an expert. Mrs. Coulibaly will give us more details on everything we just heard.

**HOST:** Good morning, madam.

**MRS. Coulibaly:** Good morning, sir.

**HOST:** Can you introduce yourself to our listeners?

**MRS. Coulibaly:** My name is Mrs. Coulibaly Assanatou Bouaré. I am a poultry technician.

I am also a teacher. I studied at the Institut Polytechnique Rural de Formation et de Recherche Appliquée in Katibougou, Mali. I live in Oussoubidiagna in Kayes.

**HOST:** Please tell us about external parasites which attack chickens.

**MRS. Coulibaly:** External parasites are also called *ectoparasites*, and they live on the skin of chickens. They bite and suck the blood of chickens and other animals in henhouses. Parasites strip chickens of all the nutrients in their feed after they digest it, which is why the chickens lose weight. They irritate the skin and other body tissues. Parasites are also toxic. They introduce toxins into the blood of the bird and makes it sick. Parasites also cause inflammation in the body, and cause injuries to chickens.

External parasites generally come from birds’ droppings or from a chicken in another flock. They can also come from the henhouse, because of the generally unclean nature of the henhouse, and the fact that the porous state of the walls allows parasites to lay eggs and thrive within cracks in the walls.

**HOST:** Which treatments are used for these different parasites?

**MRS. Coulibaly:** Several products are used to control ectoparasites, including acaracides, which kill mites, and insecticides, which kill insects. Depending on which country you live in, these products can have different names. Some of the names in this area are *Sepou*, carbalap, hexiprametrin, and cypermethrin. Farmers mix these products with water and either spray the chickens or dip the birds in it. There are also products which must be sprayed inside the henhouse.

**HOST:** What do think about treating parasites with diesel oil or anti-mosquito products?

**Mrs. Coulibaly:** It’s not recommended to treat external parasites with anti-mosquito products or diesel oil. These products can kill chickens without farmers knowing why.

**HOST:** Do you have any advice for poultry farmers?

**Mrs. Coulibaly:** We always give the same advice to poultry farmers. They must apply hygienic measures such as keeping the henhouse clean, controlling external parasites with the products I mentioned, keeping the floor of the henhouse clean, and disinfecting the inside and outside of the henhouse every month. I recommend that all modern and traditional poultry farmers always apply hygienic measures, because the success of any farm depends on sanitary conditions.

**host:** Thanks a lot, Mrs. Coulibaly.

**Mrs. Coulibaly:** Thanks to you, sir.

**HOST:** Dear listeners, through our different speakers, we learned lots of things today about external parasites, which are one of the most frequent causes of chicken deaths in the Sahel region.

Most poultry farmers in Oussoubidiagna fight these parasites by following advice from village technicians about treatments and hygienic measures. But they also use diesel oil and anti-mosquito products, which can wreak havoc on farms, and even kill chickens, and should *not* be used.

We learned about the three most harmful types of external parasites—fleas, lice, and ticks—and what damage these parasites can cause. We also learned how farmers can tell if their birds are infested with external parasites, and how the parasites spread. Finally, we learned what drugs and hygienic measures can be applied to prevent them. But what we learned most is the damaging impact they can have on rural populations and poultry farmers.

Thanks for listening to the program, and stay tuned for the next program, in which we will address another farming topic. Thanks for your kind attention and see you soon.

## Acknowledgments

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**Sources of information**

Interviews with:

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