# english black

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# The importance of animal nutrition in livestock production in northern Ghana

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### Notes to broadcaster

The livestock industry in the Northern region of Ghana has been struggling to survive for the past 10 years because there are inadequate resources and services in the area. Information on animal health, and on the nutritional needs of small ruminants such as goats and sheep, as well as supplements and veterinary services for many rural farmers, are inadequate or do not exist at all. In this script, Lydia Ajono, a community radio producer, talks to livestock owners in the Bukurugu Yoyoo and Savelugu/Nanton districts of the Northern Region of Ghana about livestock nutrition.

This script is based on actual interviews. You could use this script as inspiration to research and write a script on a similar topic in your area. Or you might choose to produce this script on your station, 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.

*Fade in signature tune*

**Lydia:** You are welcome to our program, *Pukpariba Saha**(Editor’s note:* Farmer’s Hour *in the Dagbali language spoken in northern Ghana)*. Today we are visiting livestock owners in the Bukurugu Yoyoo and Savelugu districts of northern Ghana.

*Fade out signature tune*

**Lydia:** Binde community is in the Bukurugu Yoyoo district, part of the Eastern Corridor in the Northern Region of Ghana. Binde is about 80 kilometres away from Dalun where Simli radio is. The landscape of Binde is typical of the northern savannah area. It is rolling hills with very few rock outcrops. The natural vegetation includes a variety of shrubs, trees and perennial grasses.

The climate in the district is similar to other areas in northern Ghana. Farmers here experience one rainy and one dry season. The rains start in April and last until August, or sometimes as late as mid-October. Sheep, goats and cattle are the main livestock raised by rural farmers.

Binde has a population of 800 to 1000 people, mostly smallholder farmers who combine livestock rearing and growing crops. Most of the farmers have no formal education, but are very rich in indigenous knowledge about their farming needs, especially about feeding their animals and taking care of their general health. The farmers practice what they call free-range feeding of their animals. During the dry season, the animals are allowed to go out into the farmlands and forest to feed during the day and return in the evening. In the rainy period, small ruminants such as goats and sheep are penned in a particular pasture to graze, while cattle are taken to the fields or forest to graze.

Before we talk to the farmers, let’s enjoy some songs from the area. This song is about good harvests.

*Music*

**Lydia:** I will be talking to a number of farmers about the kind of feeding programs they have for the animals. First, I am with Dimonso Bagamisa Nabilla. What are your experiences with raising livestock?

**Dimonso:** Raising animals has been my lifetime business. Just like my son is helping me, as a small boy, I used to help my father take care of the animals. In fact, I was so interested in animals that before I went to school I would feed the animals, especially during the rainy season when we have to pen the goats and sheep. My father had so many cows, sheep and goats. If you worked hard, he would give you a young animal to take care of, and in future it became yours. That is why today I have my own few animals.

**Lydia:** How many animals do you have?

**Dimonso:** I am proud to say that I have six cattle, five goats and ten pigs. I also have twelve sheep.

**Lydia:** I understand that some of your animals are with your senior brother. Why do you keep them with your senior brother?

**Dimonso:** It is a sign of respect that some of the junior brother’s property should be managed by the senior brother.

**Lydia:** Now let’s look at your feeding program. What type of feeds do you give to your animals?

**Dimonso:** I plan the feeding program according to the seasons. In the dry period when there are not enough grasses, I feed the sheep and goats tree leaves such as “narik,” mango, and leucaena. The cattle are taken to the bush every day to graze by my sons.

**Lydia:** How nutritious are these leaves? Can they keep your animals healthy and free of diseases?

**Dimonso:** You know, animals like green leaves because, first of all, they are filling – just like human beings eating food. Secondly, they’re medicinal, good for their health. So green leaves are one good source of animal feed, though they may not be a complete animal feed. Because we have shortages of animal feed during the dry season, we have to prepare feeds during the rainy season.

**Lydia**: What is involved in preparing feeds during the rainy season for the dry season?

**Dimonso:** After harvesting groundnuts and beans, I gather the leaves, dry them in bundles and store them for the dry season, which we call the hunger period. I also add a salt lick. The salt lick has some nutritional benefits, and it ensures that the animals never wander anywhere. Because they like the salt lick so much, whenever they are out during their free range grazing, they will come back home. As for the pigs, I feed them with mash. The mash is a by-product of a local drink made from sorghum or maize.

**Lydia:** How do you manage all this every day, along with your other equally demanding tasks?

**Dimonso:** I have three wives with their children. We are 22 in number living in this house so everyone is involved in caring for the animals. My wives and their daughters are in charge of fetching water and giving it to the animals, while my sons help me to cut leaves from the bush. Anytime the women go to the bush for firewood, they return with a few leaves for the animals.

**Lydia:** When I talked to the District Animal Research Office, they told me that animal owners in this area face a lot of difficulties feeding their animals because most of the bushes are burned in the dry season. What are you doing to stop the burning so that you can get feed all year round?

**Dimonso:** It is true that bush burning is rampant and has contributed to a shortage of forage. That is why most of us spend a lot of time collecting and storing crop residues after harvest during the rainy season. We must discourage bush burning. We need collective efforts by the community and the government to enforce by-laws against burning bushes.

**Lydia:** Thanks so much, Mr. Dimonso. From Binde, let’s travel to Pong-Tamale Animal Health and Production College to find out more about feeding animals. The College is training young people in animal health and production, with the goal of strengthening community veterinary services. I talked to Dr. Joseph Atawalna, a lecturer at the college, and asked him to define a complete feeding program for animals.

**Dr. Atawalna:** Thank you for having me on the program. When we talk of a complete feeding program, it simply means that an animal is given the right quantity and quality of feed for its age, sex and maturity. A complete feed should provide enough nutrition and energy for the daily movements of the animal, and provide some energy as reserve and for other activities.

**Lydia**: What types of feeds are appropriate for ruminants?

**Dr. Atawalna:** Small ruminants such as sheep and goats have a complex stomach which is designed to digest grasses. So we normally feed our animals mainly with grass, grasses that you can find in pastures, or grasses that farmers grow on their own. Also, we cut leaves from some types of trees, including leucaena, the fig tree, and thorn trees. Ruminants are not like pigs or poultry that feed on concentrates. If you give ruminants a lot of concentrates, they waste them.

**Lydia:** What do you mean by saying they waste them?

**Dr. Atawalna:** As I said, because of the nature of their stomachs, they can digest a lot of fibre, especially cellulose. Grasses and leaves contain a lot of fibre. Ruminants can digest maize and other grains only to a limited extent. So they should have only small amounts of concentrates but large quantities of grasses for a complete feed.

**Lydia:** Some farmers cut various kinds of leaves for their animals. What are some of the best choices of trees or plants?

**Dr. Atawalna:** There are quite a number that are good for ruminants. Good trees for browsing include all types of *kinkangsia,* in English referred to as fig trees, and the nasatis tree such as Gliricidia sepium and Acacia species. Good grazing plants include pigeon pea and different stylo species. Good grasses include Guinea grass, missi, and of course crop residues, which are used especially during the dry season.

**Lydia:** I spoke to some farmers who said that the leaves of the zang or thorn tree are good, and so are the seeds. They call the fruit which contains the seeds “animal biscuits.” What value does it have for the animal?

**Dr. Atawalna:** It contains a lot of protein. Protein helps the animal gain weight, reproduce better, and the animal looks better when it has a high level of protein. It also helps the animal to fight better against diseases. So protein in the diet of animals is very important – just as it is for a human being.

**Lydia:** It is well known that human beings can suffer and be treated for mineral deficiencies. But for animals, how do you correct this when it happens?

**Dr. Atawalna**: In some soils, some minerals are naturally deficient. Therefore, these minerals may be lacking in feeds grown in this soil, and the animals will have mineral deficiencies. Mineral deficiencies in ruminants can be corrected by giving them access to mineral and protein blocks, commonly called salt licks. Salt licks contain minerals such as calcium and phosphorus which the feed may lack. Ruminants suffering from mineral deficiencies are often seen licking walls or places where somebody has urinated. This tells the farmer that the animals are suffering from some form of mineral deficiency.

**Lydia:** How beneficial are these small ruminants to the income of the small-scale farmer?

**Dr. Atawalna:** Very beneficial. In northern Ghana, when crops fail and there is hunger, farmers rely on small ruminants. They sell one or two sheep or goats, and they are able to feed themselves. Also, we use them in many traditional customs like marriage, funerals, and festival activities. So they play a big part in our lives. Unfortunately, in northern Ghana, we tend not to keep animals as a business, but only as a hobby. We may give them no place to sleep, and when the animals are sick, we do not care for them or look for veterinary assistance. These are the things we need to improve. Resources such as supplements, feeds, animal housing, and services for animal health and production in the community would help to improve ruminant rearing in the region.

**Lydia:** Thank you so much for enlightening us on animal nutrition. I hope our livestock farmers have learned a lot from you.

*Sound effects of animals*

**Lydia:** Small ruminant farmers who have benefited from the Pong-Tamale Animal Health and Production College Community Veterinary Services are making use of the kind of information that Dr. Atawalna talked about. One such farmer is Wumbei Alhassan from Libga in Savelugu-Nanton district. I asked him what services he has received from the college.

**Wumbei:** Because of their teachings on how to feed small sheep who have not delivered yet, my animals look so good and healthy. I have learned to combine grasses with other forages for my animals. They are very healthy and look as if they are older than they really are. They also taught us how to build housing for the animals. There should be separate areas for the young animals and the adults. I learned that, if I build an animal house, it must have openings towards the north and south so that air can get into the house. The roof and the walls are built so that they shade the animals from direct sun in the morning and late afternoon. This has helped us; our animals do not die from heat anymore.

I collect the animal droppings for my farm. Last year, I did not use chemical fertilizers, but my maize had the best harvest due to the animal droppings that my wife and I applied. So I urge other farmers to start raising small ruminants to support the family income.

**Lydia:** Thank you, Mr. Wumbei, for sharing. Dear listeners, this brings to an end the first part of our series on animal health and production. We have been looking at complete feeding programs for animals, especially small ruminants, in the Northern Region of Ghana. Please send your questions or comments to the producers at Simli Radio, P.O. Box 764, Tamale, Ghana. Or call: 0244784176.

*Fade in/out signature tune*

## Acknowledgements

Contributed by: Lydia Ajono, Program Manager, Simli Radio, Tamale, Ghana, a Farm Radio International broadcasting partner.

Reviewed by: Dilip Bhandari, veterinarian, Heifer International.

Local names for ruminant feed plants:

*Albizia lebbeck*:

Amharic: lebbek
Arabic: daqn el-Basha, dign el basha, labakh, laebach, lebbek

English: East Indian walnut, frywood, Indian siris, koko, lebbek, lebbek tree, rain tree, raom tree, silver raintree, siris rain tree, siris tree, soros-tree, woman's tongue, fry wood

French: bois noir, bois savane, tcha tcha

Madagascar: bonara, fany, faux mendoravina
Swahili: mkingu, mkungu

*Gliricidia sepium*:

English: quickstick, mother of cacao, gliricidia

French: gliricidia, le noir Madero

Spanish: mata raton, madre cacao

Stylosanthes species:

*Stylosanthes guianensis*:

English: Graham stylo, common stylo

French: stylo, luzerne tropicale, luzerne du Brésil

*Stylosanthes hamata*:

English: Verano stylo

French: luzerne des Caraïbes

*Stylosanthes scabra*:

English: Seco stylo, shrubby stylo

French: no known common name

Fig

Mapurili: kinkangsia

*Leucaena leucocephala*:

Amharic: lukina
Arabic: leuceana

English: thorn tree, coffee bush, false koa, hedge acacia, horse tamarind, jumbie bean, lead tree, leucaena, white popinac, wild tamarind, white lead-tree

French: delin étranger, graines de lin, faux mimosa, bois bourro, makata bourse, tamarin bâtard, Leucaene, Leucaene à têtes blanches, cassie blanc
Swahili: lusina, mlusina
Tigrigna: lucina

*Cajanus cajan*:

Amharic: yergib ater, yewof ater
English: Angolan pea, Congo pea, no-eye pea, pigeon pea, red gram, yellow dhal
French: ambrévade, pois cajan, pois d’Angole, pois pigeon, pois de bois, pois-lisière, pois chiche rouge, cytise cajan, cytise des Indes
Luganda: mpinnamiti
Portuguese: feijão boere
Swahili: mbaazi

*Clitoria ternatea*

English: butterfly pea, clitoria, tropical alfalfa, blue pea

French: clitorie de Ternate, liane de Ternate, pois bleu, liane Madame, ki-poule

Mapurili: missi

Portuguese: fula criqua

*Pennisetum purpureum*:

English: elephant grass, napier grass, merker grass

French: fausse canne à sucre, napier, herbe à éléphant

*Panicum maximum*:

Afrikaans: vleibuffelsgras

English: Guinea grass, common buffalo grass

French: guinée, herbe de Guinée, mil de Guinée, canne fourragère, faux kikuyu, herbe des Bermudes

## Information sources

## Interviews conducted at Binde community in Bumkurugu-Yoyoo district, April 17, 2009; Pong-Tamale, April 18, 2009; and Libga community in Savelugu/Nanton district, April 21, 2009.

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