

Story Sheet

Livestock Health

July 2009

**Introduction – three true stories about livestock health**

**Emuria Ekai** worked at a butcher shop in a town in northern Kenya, and earned enough money to buy two weak goats for his family. He tied the goats to a pole in a shaded area near his work, and fed his goats with cabbage leaves, potato peels, spoilt tomatoes, and other waste collected from nearby vegetable vendors. He de-wormed them, treated them for ticks, and injected them with vitamins to speed their recovery. He bought two more weak goats and gave them similar care and treatment. When the rainy season arrived, his goats were strong. Two successfully mated with a neighbour’s goat. The family built a thatched shed with mud walls for its goats. The shed protected them from the cold, wind and rain, conditions that often lead to disease in goats. Today, the family has 35 goats. Most of the goats bear twins, which Emuria attributes to good feeding and health. His goats weigh more than the local goats that feed only on natural communal pastures. Their skins are of good quality due to good housing and lack of ticks. Every month, Emuria slaughters one goat and sells its meat to earn extra income. He uses part of the money to buy veterinary drugs and more cheap goats.

**Livestock farmers in the Nakasongola District of Uganda** use tobacco to kill fleas, lice, ticks and mites on livestock. The farmers dry, crush, and mix tobacco leaves with water, and then spray the concoction over cattle and goats. District veterinary officer Dr James Bugeza says that locally grown tobacco is highly effective in controlling parasites on live animals. Tobacco leaves can also be used as bedding for goats.

**Ruben Mushao** lives in Mundara village in Longido District, a Maasai area in Tanzania. His herd of cattle has increased from 300 to almost 1000 since he began vaccinating his calves against East Coast Fever. This is in spite of drought. Mr. Mushao believes that his herd would not have increased if he had not immunized them. East Coast Fever is rampant in Tanzania and causes many livestock deaths. Today, Ruben earns a comfortable income from selling his cattle.

**1. Making radio programs on livestock health – getting started**

Most often, good radio involves people talking to people about other people. This is true whether the radio program is an interview, a mini-drama, or any other format. It’s true whatever the topic of the program.

If you want to come up with story ideas on livestock health (or any other topic), it can be very useful to try free-thinking exercises.

For example, what comes to your mind when you think about livestock disease? What do you think might come to other people’s minds? Your list might include:

* physical symptoms of disease – mucus, sore hooves, inflamed udders, itching, difficulty breathing
* selling animals before their symptoms get worse
* farmers going into debt
* hunger
* the expenses of medicines and vaccinations,
* nutrition – what is the animal eating?

Do this exercise yourself, and write down all your thoughts. Then read them over. Everything you think of is a possible starting place for a story.

**2. Understanding the story arc: beginning, middle and end**

Every story has three parts: a beginning, a middle and end. The progress of a story – from beginning, to middle, to end – is called a “story arc.” The beginning of the story sets the scene. It presents the status quo, the opening situation. The middle of the story introduces a new element, often a conflict or an important encounter. This new element drives the story forward. The status quo is no longer in balance. The end comes when the conflict is resolved, sometimes resulting in a new balance. We can illustrate this story arc by looking at three invented stories about livestock health.

**Story 1:** Pastoralists in one area complain about towns and farmland expanding into their herding areas. They say that these changes are swallowing up their traditional grazing lands and herding routes. In some areas, their traditional exchanges with crop farmers – the herders provide animal dung in exchange for crop residues – are leading to a very limited diet. This is because most farmers now grow almost nothing but maize. With little pasture and a limited range of crop residues, many animals are showing signs of poor health.

**Story 2:** Villagers are careful to vaccinate their chickens against Newcastle disease before the beginning of the rainy season. But most of the village’s chickens die from the disease. Villagers wonder why. Did the veterinarian make a mistake? Is there a particularly potent strain of Newcastle disease in their village? The new Community Animal Health Worker does some detective work to find out.

**Story 3:** Women in the village are outraged that their husbands have gone into debt to buy new cows, even though market prices for cattle are low. The men say that the women must buy sheep and goats with their own money from now on, because so many cattle are dying from disease and need expensive medicines.

In Story 1, the *beginning* of the story might introduce a group of pastoralists who follow traditional ways of grazing their herd, using herding routes and conducting exchanges with crop farmers. In the *middle* part of the story, the pastoralists notice that their animals are unhealthy. They wonder whether this is related to the fact that the crop residues they receive from farmers are almost all maize stalks. The pastoralists might conclude that their animals’ poor health is due to the farmers’ actions. Conflicts, perhaps violent ones, could ensue between herders and farmers. The *end* or resolution to the story could involve farmers agreeing to establish new herding routes through their lands, and setting aside some woodland for browsing. The farmers could agree to grow several kinds of fodder plants for the herders’ animals. In exchange, the pastoralists would take care of some of the farmers’ livestock and give them animal dung to help fertilize their fields.

In Story 2, the *beginning* of the story could show the villagers vaccinating against Newcastle disease. The *middle* of the story might show chickens dying from the disease, the villagers struggling to cope, and the animal health worker trying to figure out the causes of the disease outbreak. The *end* or resolution of the story could involve the health worker discovering that the vaccine didn’t work because it was not kept in cold storage. Or, the health worker could discover that the chickens were given the wrong dosage or the wrong vaccine.

The *beginning* of Story 3 might introduce a family who lives in a village where cattle are taken care of by men, and small ruminants such as sheep and goats are women’s responsibility. From time to time, the men give the women money to buy sheep and goats, which are typically sold during the hungry season to buy food and other necessities. In the *middle* part of the story the cattle might come down with a disease, which is controlled with very expensive medicine. The added expense means that the men cannot give or choose not to give money to the women to buy animals. Arguments might follow. The *end* of the story might involve the discovery that the cattle are vulnerable to the disease because of their diet. The diet could be changed to improve their health, thereby freeing up funds for the women.

**3. Background information on livestock health**

This section gives basic scientific knowledge on livestock diseases. It will also help you to understand the seriousness of livestock disease for smallholder farmers. You can check section 8 – *Further information on livestock health* – for more information.

Animal diseases are a major global problem. For poor farmers, the impact of livestock disease on lives and livelihoods is especially serious. An outbreak of disease can mean the difference between having enough food and hunger, between having a secure income and having to sell off important household goods.

Animal health and human health are closely related. Some diseases – called zoonotic diseases – can pass from animals to humans. These diseases can have a major influence on the health and wellbeing of the households involved. Poor farmers may be at higher risk from zoonotic diseases because they often live in close contact with their livestock, and have poor access to information on how to prevent zoonotic diseases.

A disease is called “endemic” when it occurs regularly in a given area, for example, at the beginning of every rainy season. Diseases caused by internal and external parasites as well as tick-borne diseases are endemic. The ability of an animal to resist these diseases is significantly influenced by the quality of the diet.

Livestock disease results from a complex interaction between three factors: 1) disease-causing agents such as bacteria, viruses and parasites; 2) the animal itself; and 3) the environment in which the animal is raised. Disease-causing agents vary in their ability to overcome an animal’s resistance to disease, and in their ability to survive in the environment. An animal’s resistance to disease depends on the strength of its immune system, its age and sex, its lactation and pregnancy status, the breed of animal, and other factors. In sub-Saharan Africa, the environment in which the animals are raised often has the largest impact on animal health. Conditions such as the number of animals per hectare, the quality of animal housing (especially its cleanliness and good air circulation), exposure to other herds or movement between herds, temperature, humidity, heat and nutrition are all extremely important in determining whether or not an animal will stay healthy or suffer from disease.

When an animal is diseased, the direct effects include reduced feeding, changes in digestion and metabolism, increased death and sickness, and decreased rates of reproduction, weight gain and milk production.

For poor farmers, animals are often a form of household savings. Smaller animals such as sheep and goats are often sold to meet expenses such as school fees or health bills. If herds or flock sizes are reduced by disease, poor households have fewer assets with which to address these expenses. Poultry often provide poor households with an important and regular supply of protein, improving household nutrition. In an outbreak of epidemic disease, livestock movements may be restricted. Epidemics involving poultry may require the destruction of all poultry in the outbreak area.

Vaccination is an option for controlling some diseases. But access to vaccination services and regular animal health services is difficult for poor livestock keepers who live in remote areas. Affordability is another issue. Some countries provide free vaccinations and other animal health services. But resources are often limited and service delivery, particularly to poor farmers, may be inadequate. Using Community-based Animal Health Workers is a way to deliver veterinary services at lower cost.

***Ways to prevent disease***

To prevent the spread of epidemic diseases, it is important to prevent contact between infected and uninfected animals. Infection can also be spread by people, by wildlife or animals such as dogs and cats, in livestock feed, on vehicles, and by farming tools. Herds which mix together in common grazing or watering areas can spread infection.

Disease is not always caused by bacteria, viruses or parasites. It can also result from nutritional deficiency. A lack of the necessary minerals, vitamins and other nutrients may weaken the body's resistance to infection.

*I****mproved feeding and nutrition*** helps control diseases. Animals with better diets are more likely to remain healthy than animals with a poor diet. Also, some breeds of livestock (often the native breeds) have better natural immunity to disease, including the ability to cope with parasites. To overcome disease, livestock need a good intake of protein, the minerals zinc, copper and iron, and Vitamins A and E. While it is important that the animal has enough of these nutrients, an excess of nutrients can also be damaging to animal health.

**4. Doing the research for your program**

**Who should you talk to?** There are many possibilities, depending on the “angle” you want to pursue. You should talk to people who have firsthand knowledge of the issue, and/or an interesting or unique perspective. This might include herders, farmers, community health workers, veterinarians, women community leaders, merchants, people who transport livestock products, and fertilizer dealers. Think about people who are involved with the beginning of an animal’s life (for example, breeders and people who vaccinate young animals). Think about people who are involved with the end of an animal’s life (for example, butchers, people who transport animals to market, people who sell livestock products, people who eat meat and drink milk). And think about people who are involved in every stage of an animal’s life between birth and death.

**Make a focus statement:** Whether you call it a purpose, a goal, or an hypothesis, you should have a clear reason for doing a program. This focus will tell you what you need to get from your field interviews and other research. It will guide your decisions on who to talk with, and why. Every member of your production team should share the same purpose or focus.

A focus statement is a great way to articulate and solidify this purpose. A focus statement describes somebody doing something for a reason. A good focus statement includes “who,” “what,” and “why.” Writing down your focus statement will help keep you on track. A good focus statement helps you go after just one story that has action and motivation and a character.

*Example*:In Malawi, radio producers decided to make a program on the topic of storing hybrid maize. Their focus statement was: *A local farmer works to properly store his maize because he wants greater food security for his family.* This example has a WHO (the farmer), a WHAT (proper storage) and a WHY (for food security). As simple as it is, the Malawi team found this focus statement very useful. They said that having a focus statement “saved them time in the field because they know what they are going for,” and, “helped them get more depth from each interview.”

In our Story 1 above, the focus statement might be:

*By working with crop farmers, pastoralists try to work out pasture, migration and feeding arrangements to ensure the health of their cattle*.

For Story 2, the focus statement might be:

*A community health worker tries to discover why chickens which have been vaccinated against Newcastle disease are dying from the disease, in order to help village food security.*

In Story 3, the focus statement might be:

*Women villagers struggle to find a way in which both they and their husbands can receive maximum benefit from the different kinds of livestock they raise.*

**Good interviewing**

Interviews have a shape. They have a structure. They have a beginning, middle and end. The focus statement helps you decide where to start.

The beginning of an interview usually deals with the "what": what is someone doing. Then it moves to the "why": why would they do that? What is driving them? And finally the interviewer tries to find out what it means for now and in the future.

How you word the questions can greatly affect the outcome of the interview. Having the shape isn’t enough. You have to ask the right questions in the right way to get the best response that provides for a complete story.

This is where a theory called "you steer – they paddle" comes into effect. We steer an interview by asking questions that do not limit the guest to simple one or two word answers. That means that an interviewer asks questions that require the guest to do some storytelling – to describe action, to provide details, to give emotion and understanding. The best questions for doing that are called "open ended" questions. These are questions that require more than a yes or no answer.

*What*, *How* and *Why* are the magic words of interviewing because they produce the answers that build stories. Most of our questions (80-90%) should start with *What*, *How* or *Why*.

***Interview checklist***

Before you conduct an interview, do some general research on the topic and on the person(s) you will be interviewing. Then, check that you have covered all of the following:

* Know what you want to get from your guest.
* Have your guests introduce themselves on tape to the audience.
* Let them tell the listeners why they are being interviewed.
* Record some ambient sound.
* Make sure both of you are comfortable.
* Ask one question at a time.
* Ask questions that require an emotional response.
* Ask questions that bring out a story.
* Have your guests answer in complete sentences.
* Listen to the answers.
* Ask follow-up questions.
* Let your guest finish before you start a question.
* Avoid verbal nods of agreement. The uh huh’s and mmmmm’s.
* Be prepared to change direction to follow your guest.
* Ask questions two or three times if necessary for depth and clarity.
* Listen. Listen. Listen.
* Check your recorder before you leave to make sure the interview is recorded.

**5. Putting the program together**

**Formats:** Radio programs can take a variety of formats. There are interviews – with farmers, community leaders, extension workers and other experts. There are spots or Public Service Announcements. There are conversations between two or more hosts. There are group or panel discussions, usually with a radio producer acting as moderator. There are dramas, which use fictional characters to tell a story. And there are songs, vox pops, jingles, poetry, and many other formats. Programs may also include recordings of live events, including village meetings or political debates.

**Full script or outline?** Depending on the format you choose, you might write a full script or simply an outline. Radio dramas and spots require a full script because voice actors will read the exact written words on the radio. Producers write outlines to ensure that interviews, discussions, and other formats cover the topics that a producer has decided (based on research) are important to cover. For example, a written outline on Newcastle disease in chickens might include:

* a brief description of the disease,
* the main treatment options, and
* a few barriers to treatment – e.g., cost and the accessibility/availability of vaccine.

The outline could be as simple as a list of things to cover in the interview. In many cases, it will include a written introduction, important interview questions, and, possibly, a written ending for the program, as well as written introductions for interviewees.

**Who is the target audience?** Who is the program talking to? If the program is about goat diseases, find out which groups in your community raise and care for goats, or make financial decisions on the treatment of goat diseases. If goats are mainly owned and cared for by women who, from their own resources, purchase medicines for their animals, then you would target women with your program. This would affect how you would produce the program, including:

* at what time you air the program,
* the way you talk about the costs and benefits of using medicines, and
* the details you include when you talk about traditional methods for disease control.

If your program focuses on cattle, you might target a completely different audience. Your audience might change depending on whether you talk about cattle as providers of milk, cattle which migrate with nomadic herders, domestic cattle, exotic cattle, and so on. You will need to do some research in your community to determine who is interested in your livestock health topic, and who makes financial decisions about the animals you are talking about.

**6. Writing for the ear**

Writing for radio is different than writing for print. One difference is that a listener cannot re-read something he or she didn’t understand the first time – you get only one chance to get your message across. This means that the writing must be very clear, and simpler in structure than writing for print. When you write for radio, you are writing “for the ear.”

Here are some tips to help you “write for the ear.”

* Tip #1: ***Read your words aloud****.*

As you prepare your scripts or outlines, always read them out loud to yourself. If your words do not sound conversational and natural when you read them aloud, rewrite until it does. This applies whether the script is an interview, a mini-drama, a public service announcement or spot, or any other format. After writing your script, try the “mouth edit” to make sure that it can be easily said. First, read two sentences silently to yourself. Then, try to say those two sentences again, exactly as they were written, without looking at the script. If you can’t repeat the sentences exactly, rewrite until you can.

* Tip #2: ***Keep sentences short***.

Most sentences should have the structure: subject-verb-object. For example, “George tilled his field.” Try to vary the rhythm of your sentences. Every now and again, throw in a longer sentence for variety, and to keep your listeners’ ears awake!

* Tip #3: ***Don’t use big words when small ones will do***.

For example, use “many” rather than “numerous”; “use” rather than “utilize”; and “need” rather than “require.” When talking about technical issues, use common language to explain, rather than using technical jargon.

* Tip #4: ***Use contractions***.

Regular speech is informal. For example, it normally uses contractions such as “can’t”, “aren’t”, “wouldn’t,” rather than “can not,” “are not,” and “would not.”

* Tip #5: ***Use active verbs and active voice***.

Banish words like “is”, and “are”. Also, check for the word “being” and rewrite to get rid of it. Bring in verbs that do something, verbs that describe an action such as “till, “run,” “lift,” etc. Use “active” rather than “passive” voice. “The farmer tills the soil,” is an example of active voice. “The soil is tilled by the farmer” is an example of passive voice.

* Tip #6: ***Watch out for “soundalikes” and other things that are difficult to hear.***

Natural speech runs some words together, particularly when vowel/consonant combinations meet. For example, a radio announcer said, “You’re due, madam.” On the radio, it sounded very much like, “Your doom, madam.” Quite a different message!

* Tip #7 ***Pay special attention to your first line***. The role of the *first line* is to entice the listeners, to get them to listen. You should hint at what's to come without giving everything away. The first line also sets the tone for the script. While a reader may get up and come back to an article if the first sentence doesn’t capture him or her, a radio listener who gets up may not come back.
* Tip #8: ***Keep ideas intact*.** Don’t break up subjects and verbs. Compare these three sentences:
	1. Sakala Afumba, the founder and coordinator of the Zambian Maize Farmers’ Cooperative, says the maize market is booming.
	2. Zambian Maize Farmers’ Cooperative founder and coordinator Sakala Afunmba says the maize market is booming.
	3. Sakala Afumba is the founder and coordinator of the Zambian Maize Farmers’ Cooperative. He says the maize market is booming.

Sakala Afumba gets lost in the first one. The next two sentences express the same idea without losing track of who is being talked about and who he is.

**7. Revisiting the story arc**

Now that you have written a focus statement, done some background research, and recorded some interviews, you are ready to write your script or outline. You will then use it to produce a program on livestock health.

Take a moment to revisit the story arc. Make sure that you know what the beginning of the story is. Make sure that you know exactly where the “shift” in the story begins, the encounter or conflict that changes the status quo and drives the action in the rest of the story. This is the middle of the story. And make sure you know what the end of the story is. If any of these three parts is unclear, you will have to shift the focus of the story or collect more information.

Above all, remember that a good radio program tells a good story.

Good luck!

**8. Further information on livestock health**

***Organizations***

GALVmed: <http://www.galvmed.org/>

Heifer International: [www.heifer.org](http://www.heifer.org)

ILRI (International Livestock Research Institute): <http://www.ilri.org/>

OIE (World Organisation for Animal Health): <http://www.oie.int/eng/en_index.htm>

***Documents***

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