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Zimbabwe, Factor 4: Animal Health

### **Zimbabwe: Animal Health**

The health and overall welfare of animals is an issue that the country of Zimbabwe has taken into consideration; they have began taking action in many ways. A few examples are: developing ideas to prevent the transmission of diseases, training the farmers to properly medicate animals, and investing in the study of vaccinations. Veterinarians have also began making visits to tend to the newly formed practice of “dipping” cattle, and are teaching people the correct, and safe, way to castrate and dehorn cattle as well. Animal health is important in Zimbabwe because it is how many families make a living; in order to survive, most people must be knowledgeable enough to correctly maintain healthy livestock.

### **Family Living**

A typical family in Zimbabwe contains a father, a mother, and three to four children. In Zimbabwe life is not easy. Most families do not even have the luxury of tap water. The roads are made of dirt, and there are no modern ways of transportation available to the villagers. They mainly travel on foot, but often use mules when transporting things. Diseases are very common, some of the most heard of are: malaria, bilharzia, sexually transmitted diseases, tetanus, and cholera. Medicines are very expensive and in short supply, so that’s what makes diseases common; they are not taken care of at the start, so they spread very easily. The main food you can find Zimbabweans eating is called sadza. It is made of cornmeal, and it’s often eaten with meat or vegetables. They also eat wild fruit, maize, and beans. They drink mostly milk and home-brewed beer. Education in Zimbabwe is not taken lightly; most parents believe that education is valuable. Most children attend, at the very least, three years of school. Studies have shown that three-fourths of Zimbabweans are literate. For employment, women mainly do the cooking and housekeeping. They also brew most of the beer that they drink and sell. Men normally tend to cattle, hunt, and cultivate the land. Although this is what is “normal” when it comes to employment and making a living, some women do work outside planting crops and tending to the animals. Some men stay near the home cooking or brewing beer. For hobbies, Zimbabweans enjoy folk arts such as stone carving and wood-working; these kinds of hobbies were made famous by their ancestors. Religion in Zimbabwe classifies most citizens as Christians, but there are a few who practice Islamic traditions. There are also the select few that still believe in the ancient practice of worshiping their ancestors, though this is most commonly referred to as an old and out of date practice. For the purpose of this paper I will be speaking as though a family owns only a herd of cattle, as that is what’s popular with most families in the country Zimbabwe. I will also speak as though the family does not have a comfortable amount of money to live on, and struggle to make payments. The overall management of cattle in Zimbabwe is not organized well or in a way that can be effective to keep the population strong and keep the animals healthy. All the cattle owners that live in Zimbabwe struggle with diseases and don’t know how to cure them; farmers have not, until recently, been trained how to correctly vaccinate or treat their animals when they become infected with any type of disease. Veterinarians have begun taking the initiative to train farmers in the correct ways to care and treat the animals, and I believe it will prove to be very effective in the demand for farmers to know how to cure their animals. It is very important for a family with cattle as their only income to keep their animals healthy. If they lose their only source of income, the family will likely starve. There are not many health supports in Zimbabwe because Zimbabwe is such a poor country; the government of Zimbabwe believes that families should be able to support themselves, and that if they can not, they deserve to starve to death. Zimbabwe tends to be a very cruel country.

## **Why Diseases Are a Problem in Zimbabwe**

In Zimbabwe, the main sources of income are mineral exports and agriculture. The most valuable crop planted in Zimbabwe is tobacco; the amount of arable, well moistened land that can be found is scarce (10-15%), but thankfully tobacco is a crop that does not require perfect soil conditions or large amounts of water. The same is not true for many other crops. Some of the other commonly produced crops such as maize and coffee. Maize, being a fast growing crop, requires much water to grow properly; coffee grows decently in heat, but, like maize, requires fair amounts of water. As I have now explained, different crops have to be taken care of differently and require different things. Depending on where you live in Zimbabwe, it could be very difficult to grow any crops at all. Around those kinds of areas, farmers mostly raise livestock; if the farmers are only able to raise animals, this means their livestock is most likely their main source of income. If the many diseases that are found in animals in Zimbabwe strike, it is more than likely the herd will take a great hit. Veterinarians in Zimbabwe are known for using ethnoveterinary practices (the use of medicinal plants for cleansing or healing). This is not always a very successful practice, but some farmers can not afford actual medicines. The more high class farmers choose to have the veterinarians use actual medicines, because they can afford it. With using herbal healing the farmers take a chance, and if the cleansing isn't successful, the whole herd could be taken out. This would be a huge loss to the family, and would cause much stress and many hardships. As you can see, if diseases in the animals of Zimbabwe reach a place where they have become uncontrollable, the families with livestock will experience many devastations.

## **How Diseases Spread**

There are many ways that diseases can be spread, and they vary from country to country depending on where you are, what your quality of living standards are, and what animals you raise. One way, and often the most common way of disease spreading is by direct transfer of bacteria. If one cow in a herd of cattle has a disease and the owner has no idea, he doesn't know to separate that particular calf from the rest of the herd. When the diseased calf comes in contact with another calf, the disease may be spread. Another way a disease can be spread is by animals eating and drinking where others might also eat or drink; their saliva is left in the bunk or they backwash into the watering hole. When an animal is sick, in particular a cow, they have snot build up on their noses and have spit fill their mouths because the disease is working so hard to fight off the infection. When they're sick, they cough and spit often. If another cow happens to be coughed on, or is unlucky enough to lick in a spot where a diseased cow has recently spit, he will often catch the disease as well. My last example of how diseases can spread, is through insects. When an insect lands on a diseased animal, he often gets their infection on his legs. When he travels to another animal and lands on them, the infection can be removed from his legs onto the before then clean cow. The disease can then be passed on through a whole herd. As you can see, there are many ways to spread diseases through animals; there really is not a way to absolutely eliminate the spreading of diseases through animals.

## **Cordon Sanitaire**

The objective of a movement called *Cordon Sanitaire* is to stop the movement of cattle affected with a disease known as contagious bovine pleuropneumonia. Contagious bovine pleuropneumonia is a disease that cannot be detected as soon as a herd catches it. *Cordon Sanitaire* suggests many ways to help stop the spreading of contagious bovine pleuropneumonia. A few of them are as follows:

- separate the affected and unaffected areas
- form programs to assist in the affected areas
- warn areas that are in danger of being infected by the disease

Ways that *Cordon Sanitaire* suggests to help with contagious bovine pleuropneumonia are plentiful. One of their suggestions is for all animals carrying the disease to be slaughtered. If you're living in a family that make income from their livestock, this would never work; some families rely so heavily on the little profit they make from their cattle, that they'd rather have them sick and in their care, than have them dead. Another way they suggest is vaccinating the whole population for the specific disease contagious

bovine pleuropneumonia. They cannot guarantee that the vaccines will work, but they feel it's worth the chance. Another way suggested by *Cordon Sanitaire* to reduce the amount of cattle with contagious bovine pleuropneumonia is by killing any cow with the disease. This may seem cruel, but they feel the seriousness of the disease deems this suggestion appropriate. They feel that vaccination twice, at three month intervals is what needs to be done in order to be effect with that they are doing. As you can see, *Cordon Sanitaire's* main goal is to stop the spreading of the disease called contagious bovine pleuropneumonia; they have all the right intentions, and are resourceful and smart with what they are doing.

### **Dipping Cattle**

A Zimbabwean family that owns cattle have a full time job taking care of their animals. The most common diseases in cattle are tick-borne. One way Zimbabwe is beginning to try to take care of the tick-borne diseases is by veterinarians taking the time to "dip" the cattle; the process of dipping is simply running the cattle through a small, artificial pool of acaricide. This is used to reduce the amount of ticks that often enjoy taking root and reproducing on the cattle's body. How often that the veterinarians travel around their designated areas to dip the cattle varies throughout the year; they find it appropriate to dip the cattle at least 24 times a year. From December to March, weekly dippings take place; December to March are the months when the ticks are "in season", and the veterinarians have noticed an increase in reproduction as well. From April to May the doctors have found that treating the animals every two weeks is effective. June to November are slow months when it comes to the invasion and reproduction of the ticks, and they find it only necessary to dip the animals monthly. This practice has been proven to be very effective.

### **Trematodes**

In Zimbabwe, one species of disease formed by snails was found in the cattle domesticated there. This species is known as *F. gigantica*. Zimbabwe veterinarians have recorded, and continue to record, the occurrence of the trematode virus. Taking into account that locations do vary, scientists have found that anywhere from 11% to 100% of animals are affected by this infection. Recent searches and studies have uncovered that somewhere between twelve percent and forty-six and three-tenths percent of cattle are infected with *F. gigantica*. Scientists have discovered that in Zimbabwe the infection rate is higher in the rainy districts than it is in the dry districts. They believe that in order to avoid this disease, these precautions need to be taken:

- lower humidity
- mild temperatures
- less exposure to sunlight
- dry climate
- avoid swampy areas being used for grazing

The snail is the only immediate host of *F. gigantica* found in Zimbabwe. There are many other hosts that are found in Africa as well. *F. gigantica* is a disease that could end up affecting the cattle population in Zimbabwe in a way that will not result in a positive outcome. To lessen and, ultimately, eliminate the trematode virus, farmers need to take into consideration the suggestions listed above. Because the trematode is mainly found in

Zimbabwe tends to be a very cruel country when it comes to poverty and starvation, but they do show concern for the health of animals. One of the examples I have brought to the table through this paper is, developing ways to prevent the transmissions of diseases. One way they're doing that is through *Cordon Sanitaire*; the main objective of *Cordon Sanitaire* is to stop the movement of cattle affected with a disease known as contagious bovine pleuropneumonia. They have developed a strong organization and have in many ways helped in stopping the movement of infected animals. Another way Zimbabwe is trying to improve the overall health of animals is by the veterinarians training farmers to properly vaccinate and

care for their animals. This has also proven to be very effective. The practice of “dipping” cattle is a new, and booming idea that Zimbabwe has started requiring. Veterinarians take the time to dip the cattle often, and they believe strongly in the idea. Because so many families rely on the income that comes from their livestock, it is very important to maintain the animal’s health, and help them to continue to prosper in reproduction.

### **Solutions**

Ideal living conditions for cattle are not found in the climate of Zimbabwe. One main problem is the humidity. It's so hot and sticky there that the cattle have trouble keeping weight on, and the farmers already can not (financially) feed the animals enough daily. Under fed and sweating constantly does not sound like a winning combination for the livestock’s health. A way we could solve this is by having the farmers provide areas of shelter (if there are no trees), in the pastures where the livestock graze. This way they can at least avoid the direct rays of sunlight throughout the day. Because most of the farmers do not have much money, there really are no ways to avoid the humidity. On our farm, our cattle are put in a pasture that has a creek running through it. This provides them with a clean source of water for drinking and for cooling off. Normally, I’d suggest this same idea to the farmers of Zimbabwe; the problem is that there are not many safe, clean sources of water. If the water actually turns out to be safe, there is a high chance that it is filled with the very undesirable trematodes. There is one way to help this that I have come up with. If a small community with a few families living in it all own cattle, and only one family has a river or stream of fresh water running through it, an option would be for all the families to work out an agreement where all the cattle are kept near the river or stream; for example, Family A owns a small herd, and their herd is kept in their pasture which has a stream running through it and a few trees and tall grasses. Now, Families B, C, and D are keeping their cattle in areas that are unsafe for the cattle; perhaps there are large amounts of trematodes, or no shelter is able to be provided. An option for this small community would be for Families B, C, and D to, (after having all herds checked for diseases of course) ask Family A if they could share the pasture; families B, C, and D would probably have to pay rent, and might have to travel a little longer to do chores and look after cattle, but by keeping them in an area that is safe for them they would be reducing the chances of killing off the whole herd because clean water and appropriate amounts of shelter are not able to be provided. As for all the other diseases that are found in the livestock, unless you are a wealthy farmer, there is not much you can do. Relying on the medical plants for curing your animals could be very risky, and could possibly really hurt you in the future; although, if medical medicines are the best treatment you can afford, they are better than nothing. As you can see, the characteristics in Zimbabwe are not ideal for raising cattle.

To conclude, Zimbabwe is a country with conditions that make it difficult to raise anything from cattle, to corn. The hot, humid weather and the scarce amounts of clean water that are found make it hard to provide adequate living space for animals. Although it will be difficult, I do believe we could help the farmers of Zimbabwe learn and develop the kind of quality of livestock that pride ourselves in here in Iowa.

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