

# **FARMER'S TRAINING MANUAL HEALTH AND PROTECTION OF VILLAGE POULTRY**



**Funding** : French Ministry of Foreign Affairs

**Distribution** : AU-IBAR

**Concept :**  
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## CONTENTS

Chapter 1 : The trained farmer

Chapter 2 : Diseases that affect village poultry

1- Newcastle disease

Symptoms of Newcastle disease

How does this disease spread ?

How can this disease be prevented ?

When and who is vaccinated ?

2 - Vaccination

Vaccination equipment

How to fill the syringe with the vaccine ?

Reading the syringe

Taking care of vaccination equipment

How to organize the vaccination in the village ?

How do you preserve the vaccine in the village for one week ?

3 - Guinea fowl's disease

4 - Internal parasites

5 - External parasites

6 - Other diseases

Chapter 3 : Protecting chicks and young guinea fowls

Giving food and drink to young chicks

Protecting young guinea fowls below 2 months old

What a good farmer ought to know ?

How to succeed in village poultry breeding ?

# CHAPTER 1

## THE TRAINED FARMER

Veterinary practitioners (whether private or public) have neither the time nor the means to visit villagers to assist them with simple procedures. In most cases, farmers also can hardly afford to pay for such services.

It is therefore important to train farmers on how to carry out some of these procedures, under the guidance of professional veterinary officers.

Farmers could be trained by veterinary officers to equip them with the necessary knowledge they need to be able to serve their community (neighbours, farmers in nearby homesteads), farmers groups or associations.

A time will come when all the farmers will have acquired some basic knowledge on how to keep village poultry.

### 1. DEFINITION

A trained farmer is not a veterinary officer, or technician. He is a farmer who has been trained to carry out simple veterinary procedures in order to assist community members, or farmers groups, under the guidance of a veterinary officer.

He receives special training on how to vaccinate, disinfect and protect village poultry.

However, a trained farmer should not attempt to do more than he is trained for.

Apart from the three procedures mentioned above, the farmer should seek advice from a veterinary officer. A trained farmer acts as an important intermediary between veterinary officers, who in most cases are not easily accessible, and other farmers in the village or farmers groups.

## **2. HOW DO YOU SELECT A POULTRY FARMER FOR TRAINING ?**

The farmer selected for training **should be a practising poultry farmer and must be appointed by other farmers**. He or she should also possess the following qualities :

- Be of good moral standing.
- Be of good physical and mental health.
- Be middle-aged - not too young and not too old.
- Be married in order to be stable in the village.
- Should not be engaged in numerous commercial and social activities that would make him unavailable to assist other farmers in the community.
- Should read and write because he could learn more and transmit his knowledge.
- Should have some means of transport such as a bicycle in order to quickly and easily visit other farmers as well as reach veterinary officers for consultation.

## **3. WHAT ARE THE DUTIES AND OBLIGATIONS OF A TRAINED POULTRY FARMER ?**

The main duties of a trained poultry farmer are to :

- Apply simple, cheap, but effective procedures on poultry.
- Train farmers on these procedures (through meetings, dissemination of reading material, etc).
- Inform the Veterinary Officer of any problems that he is unable to resolve.

The trained farmer should never force the other farmers to carry out procedures that they do not want; he should try to convince them first. In order to do this, it is important that he establishes trust among his fellow farmers and be appointed by them, as well as win the trust of the Veterinary Officer who trains and advises him.

Each time the farmer carries out treatment on poultry, he should request payment from farmers for medicines purchased from the veterinary officer.

## WARNING !

The trained poultry farmer should always purchase medicine from legally appointed veterinary officers.

A trained farmer who purchases medicines elsewhere (black market) would be cheating his fellow farmers, as he is aware that such medicines are usually counterfeit, ineffective and poorly preserved.

Such a farmer should be arrested and charged.

It is important to ensure that medicines are not stored past their expiry dates and that vaccines are kept refrigerated in the office of the Veterinary officer.

If a trained farmer fails to adhere to these precautions, medicines and vaccines would be ineffective on poultry and consequently the other farmers would lose confidence in him.

#### **4. HOW DO YOU RECOGNIZE A GOOD TRAINED POULTRY FARMER ?**

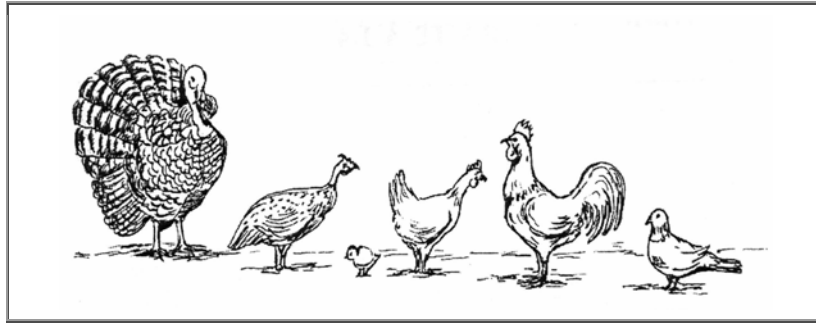
- He is a voluntary worker.
- He provides services as requested by the community.
- He does not perform procedure that he is not trained in.
- He clearly explains procedures to the farmers, he keeps them informed and is able to convince them, thus winning their confidence.
- Purchases medicines only from legally appointed veterinary practitioners.
- Gathers important information and consults Veterinary Officers whenever a problem arises.

#### **5. HOW DO YOU RECOGNIZE A BAD TRAINED FARMER ?**

- He is not appointed by the community but is self appointed.
- Always attempts to receive payment for services rendered.
- Pretends to have knowledge of things that he does not know
- Buys counterfeit medicines from the black market.
- Forces farmers to carry out procedures without properly explaining them.
- Never consults the veterinary officer about farmers problems.

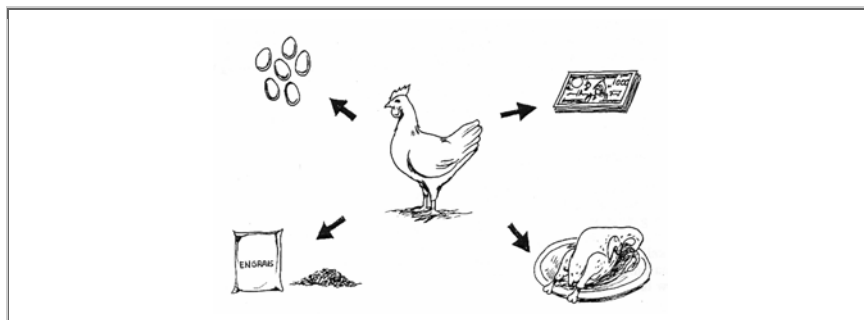
## CHAPTER 2

### DISEASES OF VILLAGE POULTRY



Village poultry represents a large percentage of the total poultry population in a country. It is the traditional breed we all love and understand.

It is affordable and yet gives high returns to the farmer and to the country as a whole, as consumers prefer local eggs and poultry instead of those produced through modern poultry farming methods.



But, unfortunately poultry does die in the villages, and each year farmers lose a lot of money.



Poultry deaths are often caused by disease, hunger and lack of proper protection (especially the young ones).

However, a trained poultry farmer can assist other farmers in preventing these deaths and consequently becoming successful in poultry farming.

### **WHAT IS A DISEASE ?**

It is difficult to define a disease or an illness : it is the opposite of good health. Everyone knows what an illness is because it is frequent, and each person has at least fallen ill once in their lifetime. There are diseases that can be prevented or treated.

### **WHAT IS TO PREVENT ?**

To prevent is to protect an animal against disease before it starts : this is performed on a healthy animal. It is like putting a roof on a house, before the rains begin, to prevent the rain from coming in.

### **WHAT IS TO TREAT ?**

To treat is to take care of a sick animal, but sometimes the animal still dies after the treatment.

It is like trying to block holes in the roof when it is raining, but the house may have already been flooded.

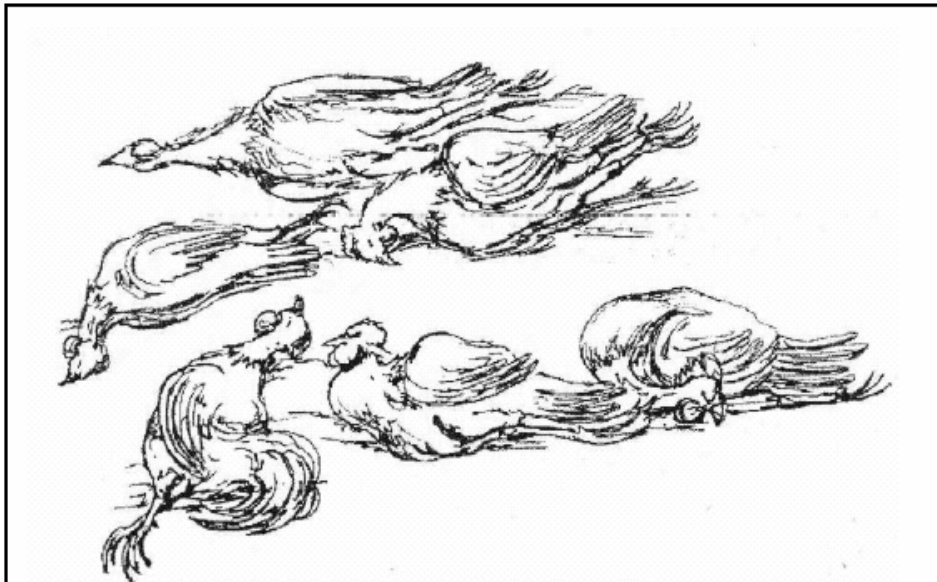
**THERE ARE NUMEROUS DISEASES  
BUT IT IS EASIER TO CHOOSE TO FIGHT  
THE MOST DANGEROUS AND COMMON ONES**

## **NEWCASTLE DISEASE**

It kills at least half the total population of village poultry every year. When an outbreak occurs in a village, almost the entire population of chickens is wiped off. It attacks various species, but is more common in chickens during the rainy, cold and windy seasons.

### **HOW CAN YOU RECOGNIZE NEWCASTLE DISEASE ?**

It affects most chickens and these die within 1 to 4 days. Numerous chicken cadavers can be found in the poultry yard.



**WHEN POULTRY HAS NEWCASTLE DISEASE, YOU CAN SEE THE FOLLOWING SIGNS :**

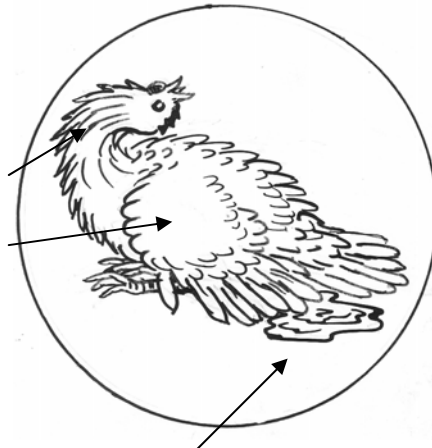
Wet eyes, nostrils drop and they shake their heads.



They no longer feed and appear very tired.  
They have difficulty standing upright.



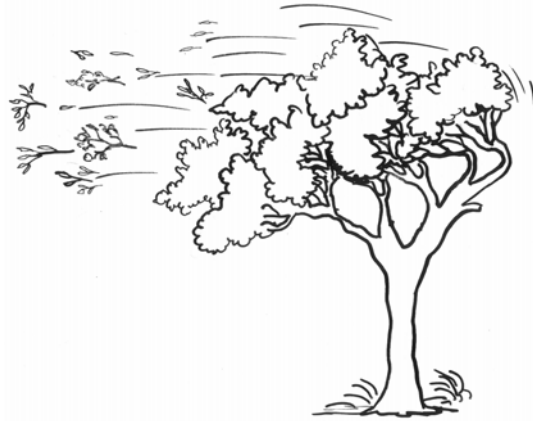
The neck is twisted.  
The beak is open and respiration is difficult and loud.  
The wings droop.



Greenish or black diarrhoea

## HOW DOES THE NEWCASTLE DISEASE SPREAD ?

BY WIND :  
Which transports microbes in the dust.



THROUGH POULTRY VENDORS :  
Who transport sick poultry to the market.

Poultry that is bought or received as gifts.  
Infected poultry from a different farmer.  
Wild birds.



## HOW DO YOU FIGHT NEWCASTLE DISEASE ?

**THERE IS NO CURE, SO IT IS IMPORTANT TO PREVENT IT !**

YOU MUST :

Completely destroy dead poultry by burying them deep or better still burning them ensuring that all their feathers, blood and all other body particles are completely destroyed.



Isolate poultry that has just been bought or received from visitors as gifts, for at least one week.

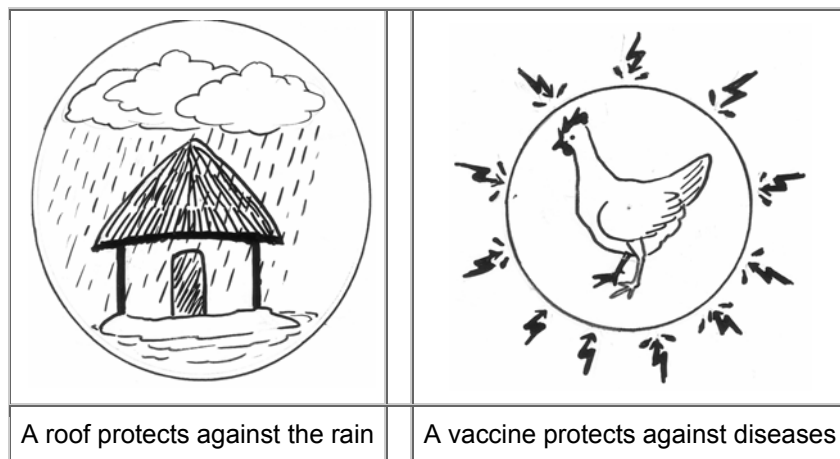


Vaccinate poultry to protect them against Newcastle disease when they are still in good health, always just before the rainy season and heavy winds. Vaccinate in the wishbone.

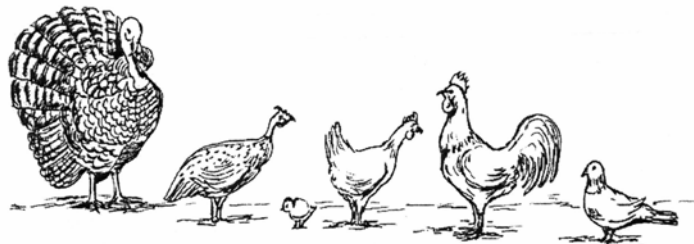


## WHEN AND WHO IS VACCINATED ?

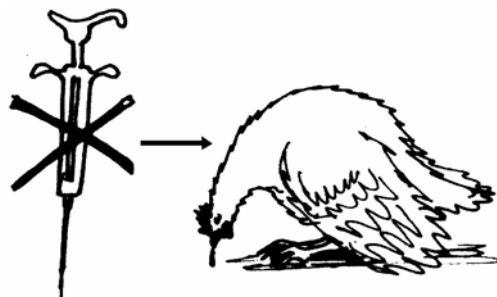
- Vaccinate just before the disease season : a vaccine is like the roof of a house.



- Vaccinate young poultry that is one to two months old.
- Vaccinate all poultry that is more that two months old each year before the disease season.

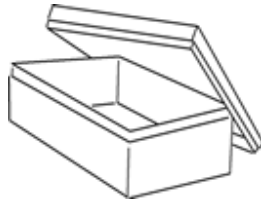


- Do not vaccinate sick poultry or poultry in a village that already has some sick poultry.



# VACCINATION

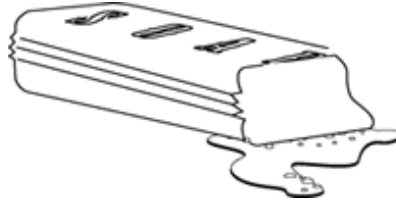
## 1. VACCINATION EQUIPMENT



A. A empty box with the cover



B. One syringe with needle



C. A bar of soap

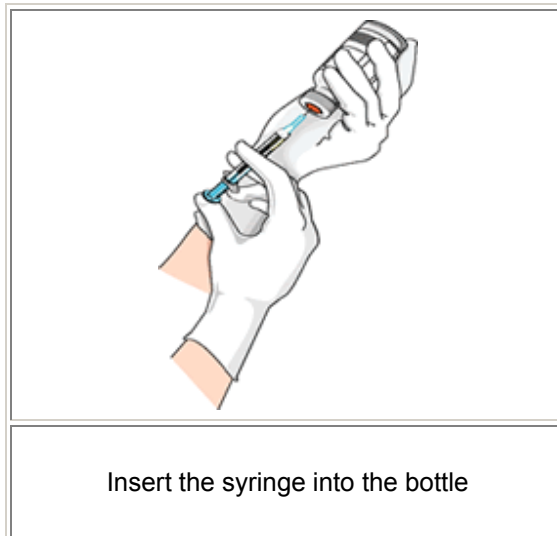


D. One vial of vaccine

## **2. HOW TO FILL THE SYRINGE WITH THE VACCINE ?**

*Before touching the equipment, you must wash your hands with soap.*

- Remove the syringe and the needle from the box.
- Assemble the needle and syringe with caution. To do this, hold the base of the needle (do not touch the tip of the needle) and place it on the nozzle of the syringe.
- Insert the needle in the bottle and with the bottle held in an elevated position, draw the required quantity of vaccine by pulling the piston of the syringe.



### **3. READING A SYRINGE :**

There are graduations on the syringe. The large lines on the syringe can be represented by numbers 1,2,3,4,5.

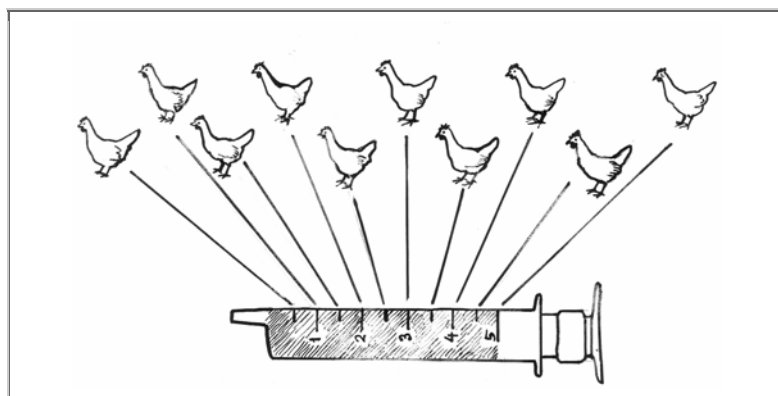
Between these large marks, there is a small thin line. These lines are reference points indicating the number of doses of the vaccine contained in the syringe.

The space between **the large line and the thin line** (or between the small line and the large line) **is equivalent to 0.5 ml : this is the correct dosage for chicks and young guinea fowls.**

The space between two large lines is equivalent to 1ml : this is the correct dosage for larger birds like turkeys and cocks.

It is important to strictly adhere to the prescribed doses :

- There is no need to put more than the required dose as this would amount to wastage.
- If the dosage is too little it will be of no use as it will be too weak to protect the animal.



#### **4. MAINTENANCE OF VACCINATION MATERIAL :**

Before and after each vaccination session, you must :

- Wash the equipment thoroughly with soap.
- Rinse the equipment very well.
- Dip the syringe and needles in a casserole or pot containing boiling water and leave them for about fifteen minutes in this boiling water.



- Keep the syringe and the needles in a clean, dry box and ensure that the box is covered to keep off the dust.

#### **5. HOW TO ORGANIZE THE VACCINATION IN THE VILLAGE :**

First of all, you must clearly explain to the village farmers the importance of vaccination through discussions, meetings and posters.

Then you must count the poultry that qualifies for vaccination, and set a date to carry out the exercise. You must aim at vaccinating as many birds as possible at the same time.

**A vial of vaccine contains 100 doses** of 0.5 ml. With this you can vaccinate 100 hens or guinea fowls.

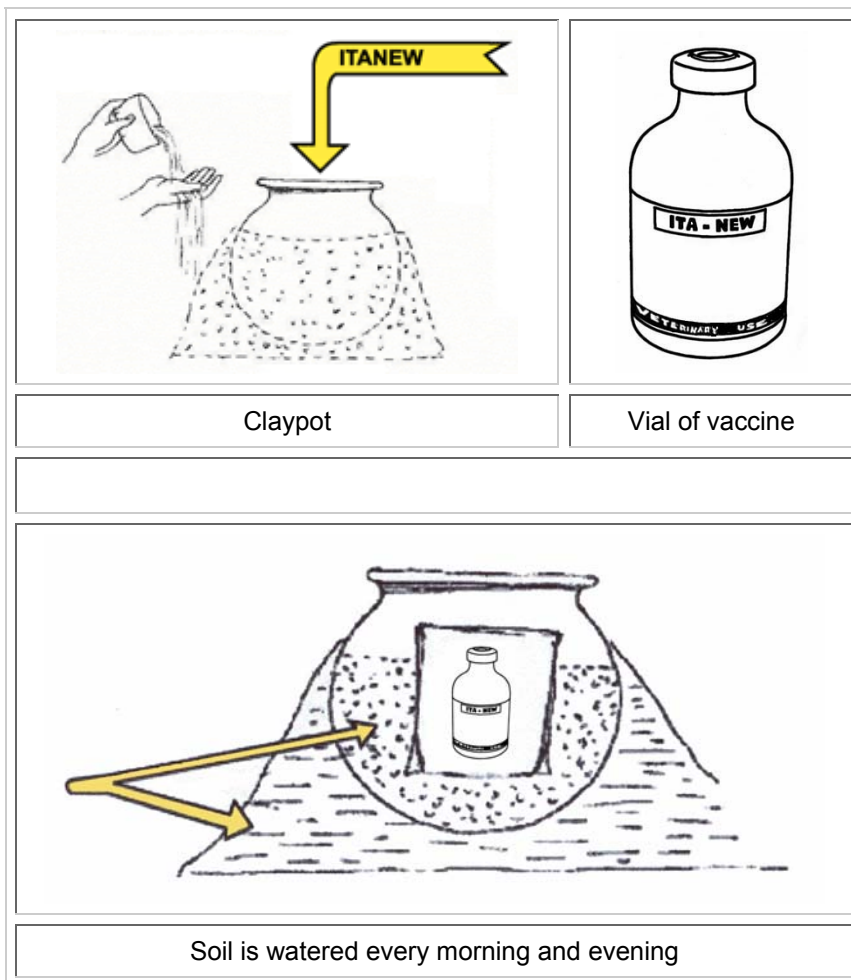
You should **buy the vaccine from the veterinary officer, ensure that it is well stored in a refrigerator**, quickly take it to the village in a box covered with a wet cloth to keep it fresh.

You must use the vaccine quickly, and if possible, on the same day that it has been purchased, and at most, within a week from the date of purchase. This is because vaccines quickly lose their strength as time goes by.

## 6. HOW CAN YOU PRESERVE THE VACCINE IN THE VILLAGE FOR ONE WEEK ?

ITA-NEW is a vaccine that is specially designed to last for 7 days as long as we keep the vial of vaccine in a clay pot filled with wet sand and covered by the same on the outside.

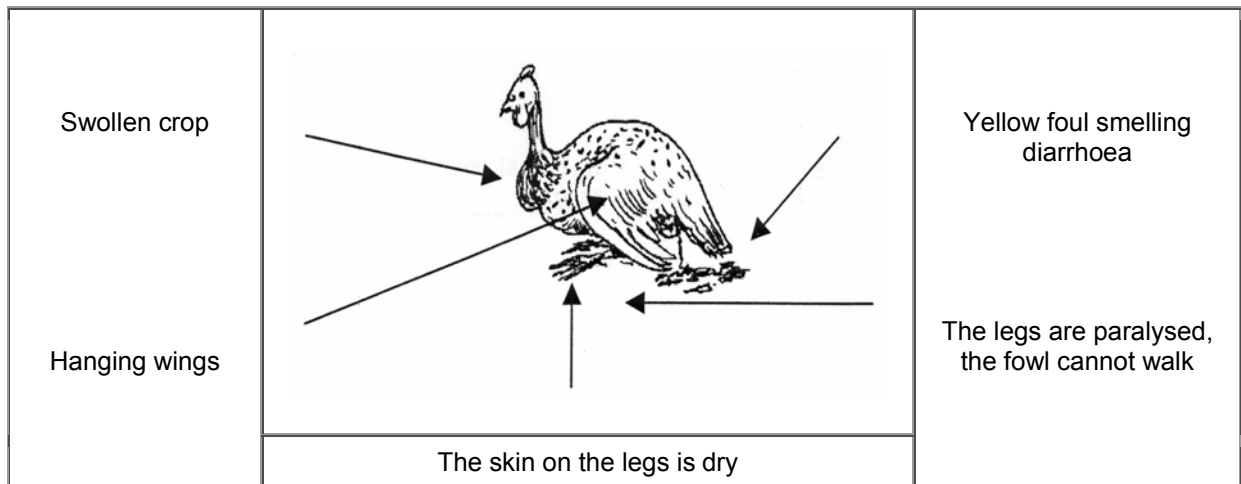
The sand inside and outside the pot must be kept wet with cold water every morning and evening.



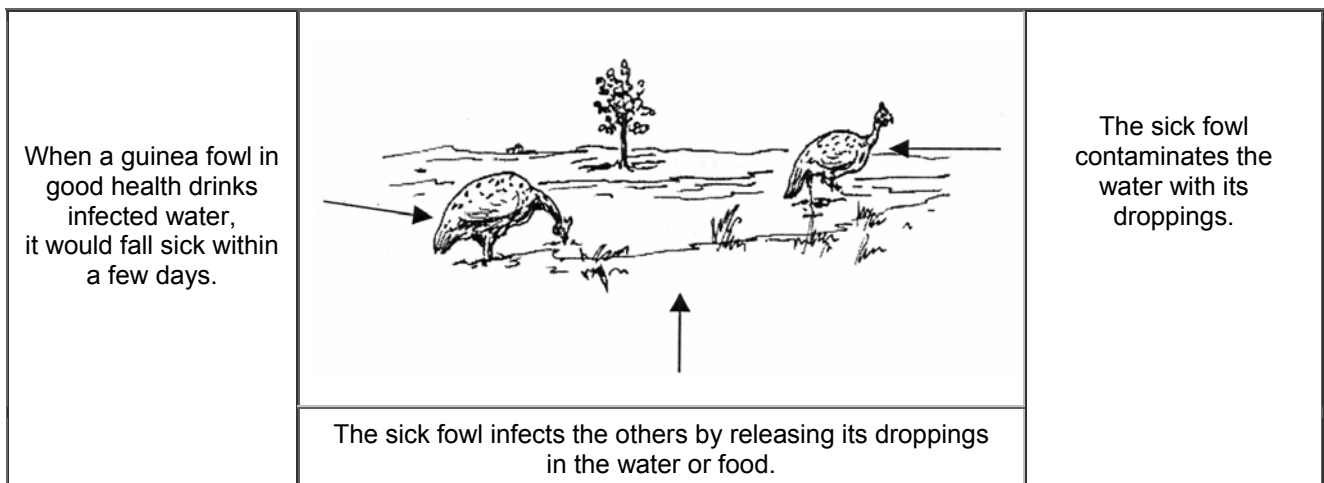
## GUINEA FOWL TRICHOMONIASIS

Trichomoniasis is common during the rainy season. It causes death of numerous guinea fowls. It is usually fatal during and at the end of the rainy season.

### HOW DO YOU RECOGNIZE IT ?

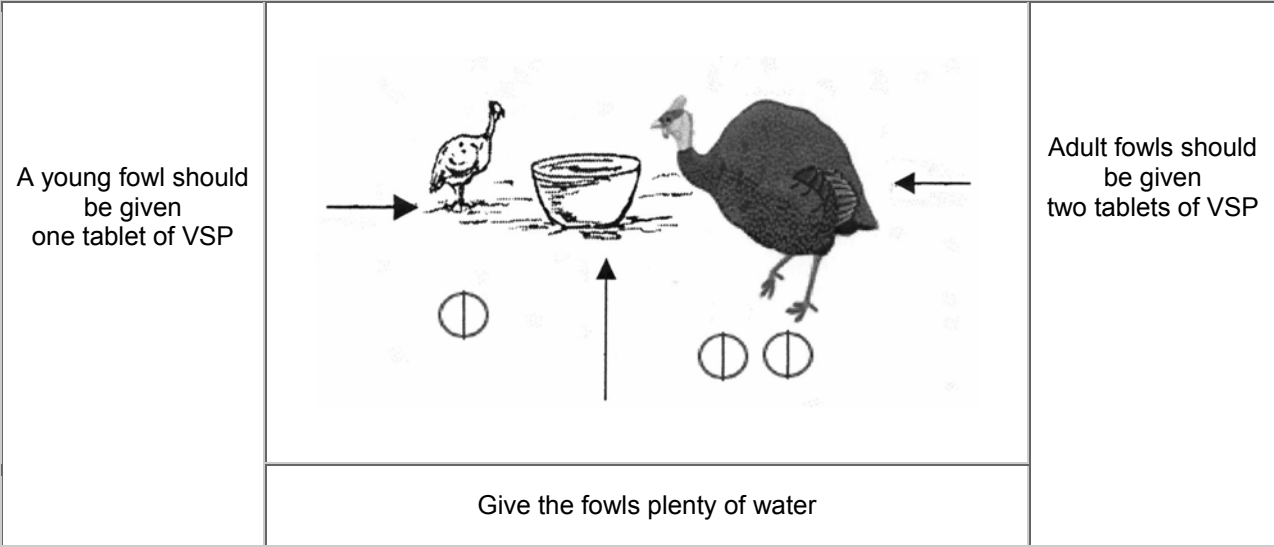


### HOW DOES THIS DISEASE SPREAD ?



**WHAT SHOULD YOU DO ?**

This disease is unpreventable. It can be treated by using Vermifuge Special Pintades (V.S.P).



## **INTERNAL PARASITES**

These are generally all the worms found inside the intestines and which feed on the same food consumed by the birds thereby causing them to become thin.

### **HOW DO YOU RECOGNIZE THEM ?**

The birds become thin, lose their feathers, this takes a long time, and in some cases they die.



### **HOW DO THESE PARASITES SPREAD ?**

The poultry consume these worms in their food or in drinking water and the ground with carries worms that are invisible to the naked eye.

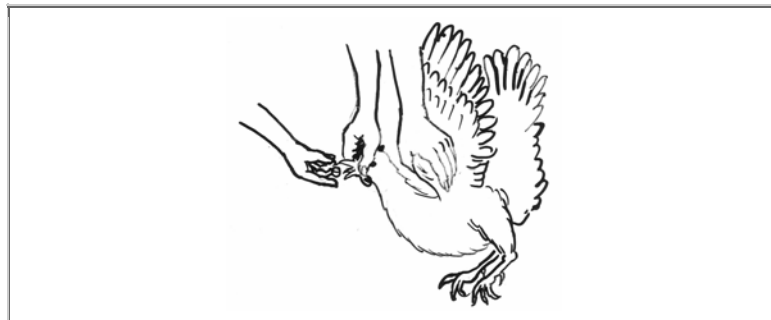
### **WHAT MUST WE DO ?**

Infected birds can be treated with dewormers (these kill the worms), BUT they can also be PREVENTED with deworming medicines once or two times a year.

Deworming medicines can be administered systematically at the same time as the vaccination for Newcastle disease. It can also be administered two months before selling the birds as these medicines will assist in fattening the birds.

There is a wide range of deworming medicine to choose from : LAPROVET proposes Vermifuge Polyvalent Volailles - VPV

The veterinary officer will prescribe for you the correct dosage for poultry. (usually one tablet per poultry).

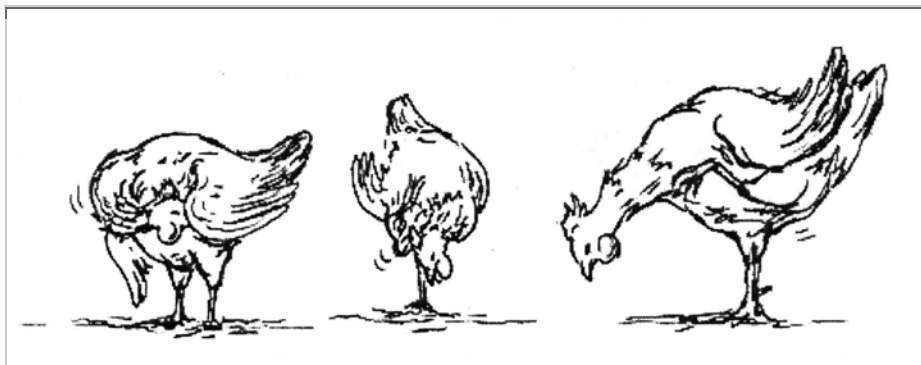


## EXTERNAL PARASITES

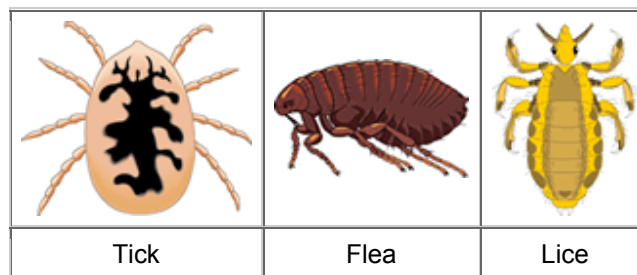
These are lice, fleas, scabs and ticks, which live under the feathers and on the skin of birds and in poultry enclosures. They bite and suck blood from the birds.

### HOW CAN YOU RECOGNIZE IT ?

- The poultry scratch and have ruffled feathers.
- The poultry become thin and slowly become weak, the young ones usually die.



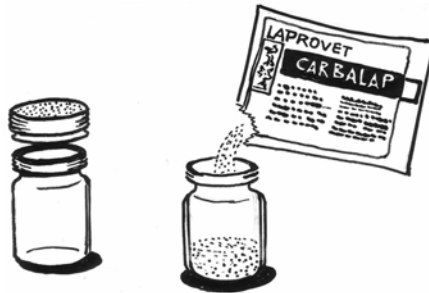
These parasites are usually visible under the feathers or in the cracks on the wall and wood in the poultry enclosure.

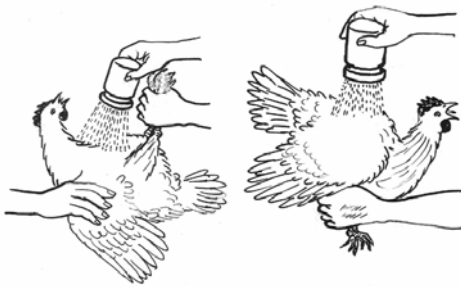





## WHAT MUST WE DO ?

- Mix insecticide with wood ash, sand and water.
- Treat the poultry with this powder and if possible the poultry enclosure.

LAPROVET proposes CARBALAP (you take 1 measure of CARBALAP for 20 measures of ash).



Apply powder directly to birds.	Or put it in a basin where the birds visit from time to time.
	

<b>Spray :</b>	<b>Bucket :</b>
<p>½ a spoon of CARBALAP powder in a spray can filled with 1 litre of water.</p>	<p>1 spoon of CARBALAP powder for every two litres of water.</p>
	
Spray the poultry shed with the treated water.	Dip the birds in the bucket with treated water.

## **OTHER DISEASES**

There are numerous other poultry diseases that are difficult to recognize and treat.

Dry pox (cutaneous form) for example is manifested by spots and scabs on unfeathered sections of the skin.

But there are various other diseases that manifest themselves by respiratory signs (cough, snoring, running nose, ...) or digestive (diarrhoea) and others (loss of feathers,...).

Never try to treat diseases that you are not familiar with : remember you are an honest trained farmer.

The veterinary officer knows the vaccines against dry pox, which are difficult to use, as well as the treatments for the other diseases. Later you may arrange with the veterinary officer to teach you any new procedures.




But, chickens and young guinea fowls have a very peculiar problem. They are very sensitive to cold and must be well protected. We will study this problem next.

## CHAPTER 3

### PROTECTING CHICKS AND YOUNG GUINEA FOWL

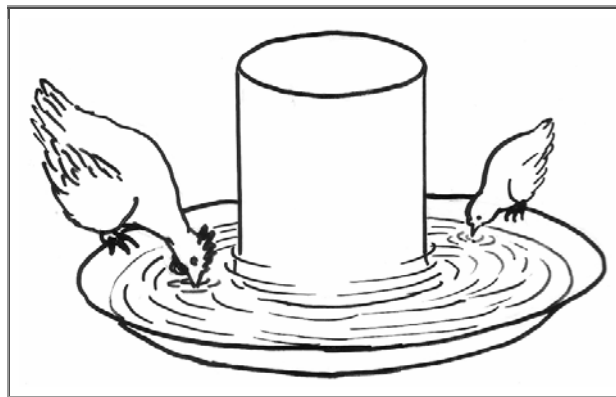
- Chicks and guinea fowls are very fragile.
- They easily become prey to diseases and predators.
- They also face a high risk of accidents.

#### HOW CAN THEY BE PROTECTED ?

<p><u>Poultry that is below 1 month old</u> should be covered with a basket. The basket should be placed in a shade place on dry and clean ground.</p>	
<p><u>For one month old chicks</u>, the basket can be partly raised so that the chicks can leave the basket as they want and also so that they can come back easily to the shelter in case of any danger. In the evenings, put the chicks inside the house but still under the basket.</p>	
<p><u>Two months old chicks</u> can be set free to join the adult birds once they have been vaccinated against Newcastle disease.</p>	

## HOW TO GIVE THE CHICKS DRINKING WATER AND FOOD

There must always be clean drinking water for the chicks in the basket. You should use a shallow drinking trough in which the chicks cannot drown: a small tin that has a hole below and inverted into a plate will do.



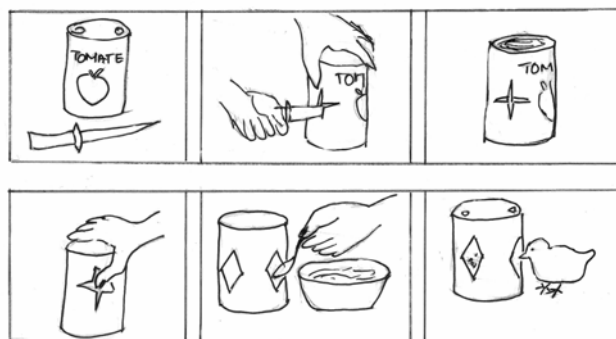
You can use the mixture given below as food :

- 2 measures of bran.
- 1 measure of cereals.

You can add to this a little powder made from dried bones, fish powder, salt, some greens and a few termites.

Give this mixture at will but avoid wastage.

You can use food containers obtained from tins that have been fashioned to allow the chicks to feed from the sides, as shown in the picture.



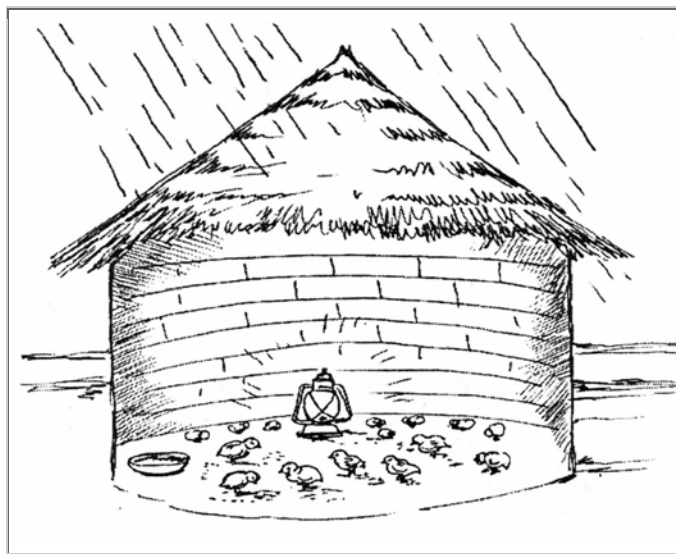
## **HOW TO PROTECT GUINEA FOWLS BELOW 2 MONTHS OF AGE !**

Young fowls are very delicate and it is difficult to take care of them. Their greatest enemy is the cold, especially after rain or on a very cold night. The cold precipitates diarrhoea which causes a large number of young fowls to die.

It is therefore important that young fowls are well protected and kept warm by placing an oil lamp in their shelter.

Against diseases that affect young fowls, antibiotics are sometimes necessary.

Your veterinary officer will advise you accordingly.



## **THE TRAINED FARMER :**

A trained poultry farmer is not a veterinary officer. He is trained to carry out simple procedures. He must always consult a veterinary officer in case of any doubts. After this training, the farmer is expected to know the following :

### **A- VACCINATION AND DISINFESTATION OF POULTRY :**

In order to carry out these procedures, the trained farmer is expected to :

- Find out the number of poultry to be vaccinated or treated and to group them accordingly.
- Alert the affected villagers and set a date to carry out the exercise.
- Go and buy the vaccine and other medicines from the veterinary officer.
- Vaccinate and disinfect the poultry (doses, injection).
- Only request for payment in line with the price already agreed upon by the veterinary officer and the other villagers.
- Wash and disinfect vaccination material before and after each session.
- Know how to preserve the equipment and especially the vaccine for at least one week.

### **B- SENSITIZATION :**

- Convince the other farmers without forcing them to accept the procedures.
- Inform them about what he has learned, to do this he must always hold discussions with the villagers.
- Explain the importance of vaccination and disinfestation.
- Give advise on how to improve poultry keeping.

### **C- INFORMATION :**

The trained farmer must always inform the veterinary officer of all the problems encountered in the course of his/her work. These include :

- Unfamiliar diseases.
- The need for vaccines and other veterinary products.
- Problems faced by other farmers.

The Veterinary officer should advice the farmer accordingly and if necessary pay a visit to the village.

## **TO SUCCEED IN VILLAGE POULTRY BREEDING, YOU MUST :**

- Vaccinate against Newcastle disease by following these procedures :
  1. Vaccinate every year just before the outbreak of the disease is expected.
  2. Vaccinate the young ones aged between 1 and 2 months.
  3. Use ITA-NEW, which has been well preserved in a refrigerator at the veterinary officer's.
  4. Use clean equipment.
  5. Do not vaccinate poultry that has already been infected, or in a village that already has sick poultry.
- Treat trichomoniasis with VSP as soon as you observe that the poultry is infected.
- Treat poultry against external and internal parasites as often as it is required.
- Protect young chicks below 2 months in a basket, by giving them food and drink, and keeping the young fowls warm and under a good shelter.

Always consult the veterinary officer whenever you encounter a disease or a problem for the first time.