PRACTICAL APPROACHES FOR DIAGNOSIS AND TREATMENT OF POULTRY DISEASES

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Introduction

- The aim of this training workshop is to share our experiences with you
- Some of us here for about 40 years
- Lots of challenges
- Have made mistakes and corrected over the years
- Will be selfish if don’t share with others
- Expected outputs

- Increased capacity in poultry post-mortem examination
- Improved ability to give proper diagnosis at high-precision
- Better equipped with various treatments for the diseases and challenges involved
- More enlightened on emerging and re-emerging poultry diseases
To note

• Farmers do not keep chickens for fun
• Those in villages may be doing so as a hobby
• Even then, the chickens help them when in financial need
• Farmers want birds that are healthy and producing maximally
Many eggs of good quality
Layers (cont)

- Pullets that start laying at 20 weeks
- Layers that produce eggs well
  - 65% production should be lowest
  - The higher the better
- Hatched chicks should be healthy
  - to produce healthy pullets
  - otherwise stunted – take long to mature

• Pullets will not start laying until growth is complete
Broilers
Broilers (cont)

- Should be about 2 kgs at 8 weeks
- 1-1.5 kgs at 6 weeks
- Should produce quality meat
  - no blisters, etc, which will lead to condemnation at slaughter
Indigenous cocks
Indigenous hens
Indigenous chicken (cont)

- That are big and healthy
  - fetch good price
- Should produce many eggs
- Should produce healthy chicks
- Chicks survival rate to be high
For most of the farmers, by the time they consult a vet:

- They have tried to treat the birds – all possible treatments
- They are defeated
- They are desperate – having lost many birds
- Production levels of the birds are very low
- Expect quick/instant solution from the vet – next to a miracle
- Having misused antibiotics, chances are that the disease-causing organisms are resistant to most drugs
- Therefore, don’t be surprised if the subscribed treatment doesn’t work
- Dr. Mbugua will give an account of usage of antibiotics in the field
- Prof. Mitema will cover various treatments and their challenges
Expected vet’s conduct

• Don’t reprimand the farmer for coming/consulting too late
• Exercise patience and public relations
• Explain to him/her dangers of indiscriminate treatments
• Make him/her understand the disease/condition and how he/she can treat it and prevent future incidences
A few diseases can be diagnosed to high precision easily, e.g. Newcastle disease:
- high mortality of affected birds
- greenish diarrhoea
- on post-mortem examination, hemorrhages in various organs, especially the proventriculus and trachea
Hemorrhagic lesions in pro-ventriculus and trachea

Another manifestation of Newcastle disease
Gumboro disease: hemorrhages and enlarged bursa
Gumboro disease (cont)

- High mortality
- Hemorrhagic streaks on muscles
- Enlarged bursa of Fabricius
- Whitish diarrhoea
Coccidiosis; intestinal and cecal – hemorrhages (+ blood in feces)

Intestinal

Cecal
Fowl Pox - pock lesions
Nitritional deficiencies

- Curled toes
- Leg paralysis
- Star-gazing
- Leg deformity

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For most of the diseases the sick birds present the same
Disease diagnosis (cont)

• So, for most diseases, have to do PM – a major tool towards poultry disease diagnosis
• May then have to do laboratory diagnosis
  – bacteriology
    - virology
    - parasitology
    - histology
• For proper diagnosis, one needs to combine:
  - clinical history (signs)
  - pre-PM examination
  - PM examination
  - laboratory results
• Prof. Mbuthia will cover this – “Diagnostic tree”
Can do PM in the field

• Not always done in the laboratory
• When need be, can do in the field
• Need to exercise biosafety and biosecurity measures
• We did it at Rachuonyo with Prof. Ogara and Dr. Olwande
PM in the field
Sometimes we come across **interesting and challenging cases** – we will share a few with you (Drs. Kagunya, J.N. Kuria and Wilson Kuria)

- Prof. Nyaga will cover **Post-mortem techniques**
- Dr. Odongo will cover **Misdiagnosis of poultry diseases at necropsy**
- Drs. Lucy Njagi and Okumu will be involved in organising **Practical session** in the afternoon
- Dr. Gitao will co-ordinate session on **Technical overview and Discussion**
- Other colleagues in the department will help us in various other ways