



UNIVERSITY OF NAIROBI
COLLEGE OF AGRICULTURE AND VETERINARY SCIENCES
FACULTY OF VETERINARY MEDICINE
DEPARTMENT OF VETERINARY PATHOLOGY, MICROBIOLOGY & PARASITOLOGY

REPORT ON A CONTINUING EDUCATION WORKSHOP ON “PRACTICAL APPROACHES FOR DIAGNOSIS AND TREATMENT OF POULTRY DISEASES”, HELD AT THE DEPARTMENT OF VETERINARY PATHOLOGY, MICROBIOLOGY AND PARASITOLOGY OF THE FACULTY OF VETERINARY MEDICINE, UNIVERSITY OF NAIROBI ON AUGUST 6TH 2014

A one-day training workshop on “Practical approaches for diagnosis and treatment of poultry diseases” was held at the College of Agriculture and Veterinary Sciences on Wednesday 6th August 2014. It was organized by the department of Veterinary Pathology, Microbiology and Parasitology of the Faculty of Veterinary Medicine, University of Nairobi in conjunction with the Kenya Veterinary Board. The training workshop took place in the department’s lecture theatre and laboratory at Upper Kabete campus.

The aims of the training workshop were two: (1) to refresh practicing veterinarians on diagnosis and treatment of poultry diseases and (2) to share our experiences (successes and challenges) with the participants. This was necessitated by the many referrals we have had from veterinarians in the field, as well as expressions on the need for such a refresher course. Poultry, especially chicken, production is important to the economy and food security in Kenya. Of the 25% of the Annual Gross Product attributed to Agricultural sector, 4% is from poultry sub-sector. Also, poultry-rearing is one of the fastest growing and promising industries in Kenya, and one that is easy to set up; even at village level – it does not require a lot of space. Currently, the population is about 31 million. One of causes of reduced production in chickens is disease - bacterial, viral and parasitic; common ones being Newcastle disease, Gumboro disease and parasitism. Some cause heavy mortalities, some result in reduced production, while some are zoonotic – posing danger to humans. Proper disease diagnosis is, therefore, important for a productive poultry industry, emphasizing the need for professionals working in the poultry industry to be continuously refreshed.

The training workshop was conducted through expert presentations, including practicals. It covered all aspects of disease diagnosis, including a touch on the commonly-diagnosed diseases; diagnostic tree; caution of possible misdiagnoses based on post-mortem examination; post-mortem procedure; various treatments that can be used and those used in the field, including challenges faced by farmers and their public-health implications. Three interesting diseases/conditions were also shared.

Attendance was 56: 45 veterinarians, 3 para-veterinarians, 6 technical staff, 2 students (**Picture 1**)



Picture 1: Workshop participants outside the Pathology building, Faculty of Veterinary Medicine, University of Nairobi

Picture 2 shows some of the participants registering for the training workshop



Picture 2: Some of the participants registering for the training workshop

The first session was chaired by Dr. D.N. Karanja, who welcomed the participants to the training workshop and shared some house-keeping rules. Dr. Githigia led the prayers. Since the college Principal, Dean and the departmental Chairman were attending a Senate meeting where the revised BVM curriculum was being discussed, there was no formal opening ceremony. There were self-introductions of the participants and Dr. Karanja called on Prof. Bebora to give Introductory overview of the workshop; including objectives and expected outputs. She emphasized that farmers do not keep chickens for fun – that they keep them to make money or to help them in times of need. She also went over some of poultry diseases that can be diagnosed to high precision, and mentioned that most of other diseases are not that obvious; in which case, post-mortem examination will need to be done, followed by laboratory diagnosis – bacteriology, virology, parasitology, histopathology. She emphasized that, although post-mortem plays a major role in poultry disease diagnosis, all aspects, including clinical signs, clinical history (signs), pre-PM examination, PM examination and laboratory results need to be considered. Prof. P.G. Mbutia then followed and presented the “Diagnostic tree”, which took into consideration the

aspects mentioned above plus age of the affected birds, etc. The aim of this was to enable the practitioner to be able to make high-precision diagnosis in the field.

The session after tea break was chaired by Prof. Maingi. Eight presentations were made: Dr. M.O. Odongo covered “Misdiagnosis of poultry diseases at necropsy”, focusing mainly on Marek's disease/Leukosis and Newcastle disease/ Fusariosis. Dr. Humphrey Mbugua, a private poultry practitioner, covered “Current poultry drugs and their challenges, used by farmers in Kenya”. Prof. E.S. Mitema, a pharmacist in the department of Public Health, Pharmacology and Toxicology, covered “Use of poultry antimicrobial agents: Public health implications”, touching on antibiotic resistance and drug residues. Drs. J.N. Kuria, D.K. Kagunya and Wilson Kuria (of National Veterinary Laboratories) shared interesting cases on: “Avian zoonotic microbial pathogens, with special reference to *Campylobacter*, *E. coli* and *Salmonella* in free-range chicken”, “Case of eye-worm in Kenyan indigenous chickens?” and “Ascites in broilers”, respectively. Prof. P.N. Nyaga covered “Poultry post-mortem examination techniques and on-farm biosecurity”. Dr. G.C. Gitao then summed up the session with “Technical overview and Discussion”.

After lunch, was the practical session, chaired by Dr. J.K. Gathumbi. There were 9 stations, each with 4-5 participants. Each station had a supposedly sick bird and instruments for carrying out the PM. The participants were to practice the post-mortem steps as described by Prof. Nyaga (hands-on exercise) and attempt to come up with a tentative diagnosis. It is regretted that not much time was available for this exercise, especially taking into consideration that the morning session took longer than planned. However, the participants were able to share their respective diagnoses after the exercise. The University poultry diagnosticians were around to answer any of the participants' queries as they carried out the post-mortem examination. Dr. Waruiru then led the participants into Plenary session, mapping of Way forward, and filling-in of questionnaires. Parts of suggested way-forwards were:

- coverages of pet birds like parrots, love birds – diseases, treatment, vaccinations
- getting more involved in county issues so that we can influence policies on animal health, which includes poultry health
- Some even requested coverage of tortoises and turtles.

Picture 3 shows some of the participants carrying out the post-mortem examination.



Picture 3: Some of the participants at a hands-on practical session - carrying-out post-mortem examination

The welfare of the participants were taken care of very well. **Picture 4** shows some of them taking a health break.



Picture 4: Some of the participants on a health break

The last session, chaired by Dr. Ayuya, comprised the Closing ceremony, giving of Vote of Thanks and issuing of Certificates of participation. This session was graced by the college Principal (who closed the training workshop), the Dean of Faculty of Veterinary Medicine and the departmental Chairman. All the three congratulated the department of Veterinary Pathology, Microbiology and Parasitology for hosting the training workshop, which was the fourth for the department and the whole Faculty. They encouraged the department to organize more trainings, including those for rabbits and non-chicken poultry. Certificates were ready for issue by end of the workshop. However, due to shortage of time, only three were presented by the guests of honour. **Pictures 5 and 6** show parts of the closing session.



Picture 5: Principal, CAVS, addressing participants at the Closing ceremony



Picture 6: Dr. Victor Yamo receiving certificate of participation from the Principal, CAVS

Closing prayers were offered by Dr. Githigia

Overall assessment of the training workshop, extracted from the questionnaires, was as follows:

Using the ratings: 1 for Poor, 2 for Fair, 3 for Good, 4 for Very good and 5 for Excellent

- Ratings for Professional aspect of the CPD were:

Fair – 1.74%

Good – 17.75%

Very good – 55.85%
Excellent – 24.68%

- Ratings for Facilitation aspect of the CPD were:

Fair – 5.31%
Good – 29.55%
Very good – 42.43%
Excellent – 22.73%

Using the ratings: Fully met, Partially met and Not met

- Ratings for workshop objectives being met were:

Fully met – 87.10%
Partially met – 12.91%

- Ratings for one's expectations being met were:

Fully met – 70%
Partially met – 30%

On Suggestions for improvement

The 2 main ones given were:

- Increasing time for practicals
- Having public address system

On future topics

The main ones were:

- Diseases of other poultry species – quail, guinea fowl, peacock, ostrich, parrot, love bird
- Rabbit production and disease diagnosis
- Camel production and disease diagnosis
- Practical approaches for diagnosis in other animals (pigs, cattle, sheep, goats, etc
- Fish diseases

Prof. L.C. Bebora