

# Global Veterinary Microbiology and Veterinary Medicine Summit

October 17-18, 2016 Chicago, USA

## Dietary vitamin-A supplementary effects on immunocompetence and growth performance of broiler chickens

Faluyi Oyetayo Bolanle

Federal University of Technology, Nigeria

Until recently most studies overlooked the potential role of vitamins in optimizing immune response in chickens, particularly in response to infections from bacteria and viruses. Vitamins-A, D and E have been demonstrated to have a direct modulating activity on the immune system. This study was therefore carried out to determine the effect of varying vitamin-A supplementary levels in diets of broiler chickens on immunological response to Newcastle Disease Vaccinations (NDV). A feeding trial was conducted using 120 day old broiler chicks divided into 3 treatments with 4 replicates of 10 birds each. Birds in treatment-A served as the control group and fed diets containing the National Research Council requirement level of vitamin-A; birds in treatment-B and C were fed diets supplemented with 100 and 200 mg/kg of dietary vitamin-A respectively throughout the study. Hemagglutination Inhibition (HI) test performed on serum samples from experimental chickens assessed humoral immunity as antibody production to NDV. The results showed that the immunological responses after vaccination with NDV Hitchner B1 strain revealed that chickens fed either 100 or 200 mg/kg of vitamin-A recorded the highest antibody titer ( $\log_2 7$ ) while those fed the control diet had the lowest antibody titer ( $\log_2 6$ ). Administration of NDV LaSota vaccines elicited higher antibody titer ( $\log_2 9$ ) in birds fed 200 mg/kg vitamin-A which was significantly different ( $P < 0.05$ ) from that of birds fed the control diet ( $\log_2 7$ ). It can be concluded that immune response of birds to vitamin-A activity improved with higher supplementary levels.

faluyi2005@yahoo.com

## Prevalence of bovine trypanosomosis in and around Nekemte areas, East Wollega Zone, Ethiopia

Feyera Gameda

Jimma University College of Agriculture and Veterinary Medicine, Ethiopia

A cross-sectional study was conducted from November 2010 to April 2011 to determine the prevalence of trypanosomosis and to identify the prevailing species of trypanosomes in cattle present in and around Nekemte. Blood sample were collected from ear vein of 400 cattle and then examined using thin and thick smear method followed by Buffy coat examination. Anemic status was determined by Packed Cell Volume (PCV). Out of 400 samples were examined, 36 (9%) were positive, out of which 26 (0.065%) had *Trypanosoma vivax* and 10 (0.025%) had *T. congolense*. The mean PCV of the infected animal is 19.36 and that of non-infected animal is 27.54, which indicates a significant difference between these animals. Trypanosomosis is a fatal and economically devastating disease and the major constraint to production by causing loss of the livestock. Therefore, the better strategies to prevent this disease includes avoidance of animals from tsetse-infested areas, tsetse fly control by using different scientific methods such as, sterile insect technique, use of acaricides, prophylactic use of trypanocidal drugs, keeping of trypanoresistant breeds and good husbandry practice for the prevention of the disease.

qafayera.game@gmail.com