Effects of Components of Melia azadirachta on Coccidia Infections in Broilers in Calabar, Nigeria

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Abstract:
This study was undertaken to assess the potentials of the extract from Neem plant leaves, Melia azadirachta, as a potential intervention against coccidiosis. The extract concentrations used were 15% for Treatment 1, 20% for Treatment 2, 5.0% for Treatment 3 and 0.5% which was used as control for Treatment 4. A total of 48 Anak broilers, raised from day old in deep litter were used for the study. The birds came down at three weeks of age with a mixed infection of coccidiosis. Thereafter, the birds were divided into four (4) groups of 12 birds each. One bird from each group was subjected to post-mortem inspection prior to and after the administration of the intervention while faecal samples of the birds were taken and analyzed prior to and after the administration of the intervention. Three different concentrations of the neem extract were prepared and standardized at 15, 10 and 5%. The various concentrations of the intervention were then administered to each group of birds for a continuous period of five days. Post-mortem examinations carried out revealed that the birds were moderately to heavily infected before and after the administration of the intervention. The study revealed that the initial level of coccidiosis infection of the birds were heavy infection (+++) for Treatments 1 and 2, moderate infection (++) for Treatment 3 and very low infection (+) for Treatment 4. The final levels of infection after the administration of the intervention were low (+) for Treatment 1, moderate for Treatments 2, 3 and 4 while the differences in the levels of the initial and final infections were (-2, -1, 0, +1) for Treatments 1, 2, 3 and 4 respectively. The first Treatment (T1) with 1.5% concentration, the level of infection was considerably, treatment 2 (T2) with 10.0% concentration reduced the level of infection was reduced a little; treatments 3 (T3) with 5.0% concentration had no effect on the level of infection while in treatment 4 (T4) the control with 0% concentration there was an increase in the level of infection, because there was no intervention here the parasitic organisms grew without hindrance hence the level of infection increased. By inference therefore, treatment 1 (T1) with 15.0% concentration of the intervention was the most effective against coccidiosis in broiler birds.

Keyword:
Effects, components, Melia azadirachta, coccidia infections, broilers

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