LITTERATURE REVIEW

1. Ali Mohammad ,B. (2012): Several non-official reports from different clinics, governmental veterinary head-quarters and bird keepers indicate that most of the young pigeons die with suspicious infection to parasites. In addition, the pigeon owners were complaining of skin itching on their head. Thus, this research was conducted to determine the pathological study of parasitism in racing pigeons with an indication of its effects on community health. This result indicates that pigeons and their owners may be at high risk of single or multiple parasitic infections.

2. Ashenafi,H.(2004): A survey on gastrointestinal helminths was conducted on 190 chickens raised under traditional management system, originated from three selected agro-climatic zones in central Ethiopia, namely Jeldu (Highland zone), Sebeta (Mid-altitude zone) and Awash-Melka-Kontire (Lowland zone). The study indicated that 164 (86.32%) and 144 (75.79%) of the examined chickens were invariably infected by diverse species of cestodes.

3. Adu, O.A. (2009): The rationale behind this project was to employ the knowledge of adaptive research in animal healthcare by conducting field experiments as to the efficacy of a botanical species -Carica papaya in eradicating/checking worm burden in poultry due to the identified limitations against the use of conventional anthelmintics.

4. Aade,U.P. (2012): The study deals with the haematological parameters in Gallus gallusdomesticus (Linnaeus, 1758) which is naturally infected
with cestode parasites. Inspite of the fact that the haematological value of birds (Gallus gallus domesticus) are of clinical significant rates than commercial importance. The total erythrocytes and leukocyte count, haemoglobin and haematocrit value, mean corpuscular volume and differential leukocyte count were determined. There is a significant decrease in erythrocytes count and haemoglobin concentration, haematocrit value. While the total leukocyte count was increase in the infected as compare to the normal Gallus gallus domesticus. The obtained result collectivities indicate the change in haematology of Gallus gallus domesticus infected with cestode parasites. Parameters of the infected bird Gallus gallus domesticus shows high infection cause macrocytic anemia, lymphocytosis due to deficiency of related factors.)

5. **Aandg, K.L. (2008):** The gastro-intestinal tracts of 240 *Columba livia domesticawere examined parasitologically for helminths aimed at providing information on their species composition, prevalence and distribution in Zaria area, northern Nigeria. Of these, 116 (48.3%) were infected by 9 species of helminths, comprising 6 species of cestodes and 3 species of nematodes. *Ascaridiacolumbae* which was the most prevalent nematode was recovered in 9 out of the 12 months of the year. Single infection was more common (37.5%) than double 24 (10%) and triple infections (0.83%). More infection was observed during the wet season.

6. **Abdelrahman, M.A. (2007):** The efficacy of Albendazole against experimental *Raillitina tetragona* infectionin poultry was evaluated in this study, Thirty six <one day – old male lhmann layer chicks were
purchased and reared at the divided into three groups (twelve birds each group). It is recommended that albendazole should be used as a drug of choice for effective treatment of R. Tetraona infection in susceptible birds.

7. **Bhure, D.B. (2011):** The study focused on the observation of haematological parameters in *Gallus gallus domesticus* which is naturally infected with cestode parasites *Cotugniadiagnopora*. Out of 43 *Gallus gallus domesticus*, 28 are infected with cestode parasite. The haematological parameters of the infected bird *Gallus gallus domesticus* shows high infection cause macrocytic anaemia, lymphocytosis due to deficiency of related factors.

8. **Dube, S. (2010):** A study was carried out to determine endo and ecto-parasites in Matebeleland North and South from free range chickens (*Gallus domesticus*). Only adult chickens were selected for study were *Menopon gallinae*, *Menacanthus stramineus*, *Dermanyssus gallinae*, *Ornithonyssus bursa*, *Cnemidocoptes mutans*, *Echidnophaga gallinacea*, *Gonocoites gallinae* and *Gonocoites hologaster*. The birds under study showed slow growth, poor egg hatching. Parasites should have contributed substantially to this poor growth although not single handedly.

9. **Dontwil, K. (2011):** In small ruminants, the majority of diseases reported in Africa were parasitic infections with coccidiosis and helminthiasis being the most prevalent. This paper deals with these important diseases in the Ghanaian poultry industry. The objective is to find out whether rainfall and temperature have any effect on these diseases.
so that plans can be made to control them. The paper has identified the models of these important poultry diseases in Ashanti region. The results from this work show that the dependence of helminthiasis on both temperature and rainfall was not significant and rainfall may not have much influence on coccidiosis, if any. It also came out that in both diseases, if the infected birds are isolated and treated for at least one month, the other birds may not be infected.

10. **Eslami, A. (2009)**: The aim of this study was to determine the prevalence, intensity, and species of internal and external parasites of native fowls from Golestan Province, north of Iran.

11. **Heyradin, H. (2012)**: A cross sectional survey on gastrointestinal helminthes was conducted on 12 chickens raised under traditional management system in two selected districts namely ada and Admitula of eastern shewa zone, Ethiopia. Of the chickens, 111 (89.5%) were found to harbor one of the five different helminth parasites and 13 (10.84%) were free of helminths parasites. This study strongly suggested that helminthosis is very serious problem of backyard chickens in eastern shewa zone of oromia and appropriate control strategies need to be devised.

12. **Irungu, L. W. (2004)**: A study was carried out on 456 indigenous poultry intestinal specimens from various towns in Kenya to determine the occurrence and distribution of helminth parasites in the intestinal tract of the birds. Of the specimens examined, 414 had parasites. Most helminths were present in both the mid- and hindguts. *Syngamus*
trachea and C. digonopora were only found in the foregut and midgut, respectively. Although chickens from which the specimens were collected appeared healthy, the high prevalence of helminthiasis observed shows the poor level of helminth infection control practiced by the indigenous poultry keepers in the country, which might affect the health status of the birds and their growth rates. Poultry keepers should be encouraged to prevent, control and treat such cases.

13. Junker, K. (2008): The helminths of 15 Helmeted Guineafowls were collected in the north of Limpopo Province, South Africa. A total of 11 cestode, ten nematode and a single acanthocephalan species were present. Species richness ranged from 8 to 16 species per host, and nine core and nine secondary species accounted for 40.9% of the component parasite community. A single trematode, Dicrocoelium macrostomum, was collected from five of nine guineafowls, but was not included in the helminth community study.

14. Jinga, P. (2012): A study to investigate the intensity of ectoparasites and gastro-intestinal tract worms of chickens in winter and summer was conducted in Ward 28 of Murehwa District in Zimbabwe. Sixty chickens given to local farmers to rear under the free-range system were examined for parasites; 30 in summer of 2009 and the other 30 in winter of 2010. Chickens were generally parasitised in Murehwa District. There is need to intensify parasite prevention and control, but more specifically, the
control of A. persicus, E. gallinacea, A. galli and C. infundibulum in summer.

15. **Luka, S.A. (2007):** Gastrointestinal parasites which invade the host possess morphological and physiological features such as small thread like cylindrical body, hooks, and hard body cuticle enhance their adaptation to long living and existence in their hosts. These parasites constitute a major factor limiting productivity of the poultry industry by affecting the growth rate of the host resulting in malfunctioning of organs and eventually death.

16. **Mikil, (2008):** A survey of the gastrointestinal parasites of local chicken was carried out in Sokoto metropolis between June and September 1998 one hundred and fifty alimentary tract were observed of which 139(92.6%) had helminths. The genera of gastrointestinal helminthes encountered were.

17. **Mukaratirwa, S. (2009):** A survey of ectoparasites, cestodes and husbandry aspects of indigenous free-range chickens was carried out in selected districts from the highveld and lowveld of rural Zimbabwe. The survey recorded infection with 4 species from the order Phthiraptera (lice), 1 species from the order Siphonaptera (fleas), 6 species from the order Acarina (ticks and mites) and 9 species of cestodes. The majority of households kept their birds extensively with barely any appropriate housing, and supplementary feeding was only occasionally practiced.

18. **Msoffe, P.L.M. (2010):** A study was conducted to assess the prevalence of parasites of domestic pigeons in Morogoro Municipality, Tanzania.
100 nestlings and 100 adult pigeons were examined for the presence of ecto and endoparasites. Three different species of ectoparasites (Pseudolynchia canariensis (61.5%), Menocanthus stramineus (0.5%) and Menopon gallinae (0.5%)). The prevalence of columbae was statistically higher (P < 0.001) in adults. Further studies are recommended in assessing the effects of the parasites on the pigeons’ health and production.

19. Matur, B. M. (2010): Five hundred (500) gastrointestinal tracts of local and exotic breeds of chickens slaughtered at the Gwagwalada Market (the FCT, Abuja) were collected and examined for helminth parasites. Formol-ether concentration technique was used to concentrate the gut content and analysis carried out. Six different gastrointestinal parasites were isolated and identified. Of these parasites, Ascaris galli was found to be the most prevalent (51.60%) among the chickens. Other parasites encountered included;Railleitina echinobothrida (19.60%), R. tretragona (22.20%), Hymenolepsis carioca (23.00%), Hetarakis gallinarum (31.00%) and Syngamus trachea (1.80%). There was significant difference (x²=6.64, df=1; P<0.01) in prevalence rate of infection between the local and exotic breeds of chickens.

20. Muhairwa, A. P. (2012): A survey was conducted to assess the prevalence of helminthis in free-ranging adult ducks in Morogoro Municipality, Tanzania. The gastrointestinal tracts of 192 ducks (96 ducklings and 96 adult ducks) were examined for the presence of gastrointestinal
parasites. Prevalence of gastrointestinal worms was statistically significant higher (P<0.05) in ducklings than in the adult ducks, explaining the higher susceptibility of young birds to intestinal infestations. The work presents the first record of duck helminths in Tanzania. Further studies on the epidemiology and importance of worms in the growth and productivity of ducks under free range management system are indicated.

21. **MushiE, Z. (2006):** This study examined flock size and management, level of internal and external parasite burden and seroprevalence of antibodies to poultry pathogens in indigenous chickens in Bokaa village, Kgatleng district, Botswana. The mean flock size was 22.6±6.85 with a range of 11–34. The mean body weights of cocks and hens were 2.28±0.56 kg and 1.70 ±0.38 kg, respectively. Housing and commercial poultry feed were not provided. *Ascaridia galli, Heterakis gallinarum* and *Syngamus trachea* were found in some birds. Although the chickens were not vaccinated against any poultry diseases, serum antibodies to Newcastle disease, infectious bursal disease and infectious bronchitis were detected.

22. **Marizvikuru, M. (2011):** Village chickens improve rural farmers’ nutritional and income status. Nonetheless, chicken productivity is chiefly hampered by gastro-intestinal parasites and there is dearth of information on the prevalence of these parasites in village chickens in South Africa. Point prevalent study was, therefore, conducted in two villages of Centane district to determine the prevalence of gastro-intestinal parasites in village chickens. Generally gastro-intestinal
parasites were prevalent in village chickens of Center district. Sustainable ways of controlling these parasites need to be designed for improved village chicken production and ultimately rural livelihoods. Further studies on period prevalence of gastro-intestinal parasites in chickens in South Africa need to be conducted.

23. **Nandadip, A. (2010):** A study was carried out to identify and estimate the prevalence of ecto- and endoparasites of village chicken between April and July 2008 in three local councils of Enugu state, Nigeria. A total of 1038 chickens comprising of 468 chicks, 207 growers and 363 adults were examined during the house to house survey for ectoparasites, gastrointestinal helminths and coccidia infections. Our finding showed that 41% were infected with ectoparasites with lice, fleas, and mites having prevalence rates of 62.2%, 35.7% and 2.1%, respectively. Helminths and coccidia had prevalence of 35.5% each. Among the helminths *Ascaridia galli* was the most dominant species (17.2%). Generally, there was a significantly higher helminth infestation relative to the ectoparasites (*P* < .05), high prevalence of mixed infections and absence of tick infestation. Parasitism could be big constraint to production in the study area and we recommend a sustainable control strategy.

24. **Nagham, Y., Al, B. (2011):** The study was conducted to identify different cestodes infecting pigeons from various regions in Diyala province. The total prevalence were 73.01%. Three genera of cestodes were diagnosed and identified (*Aporinadelafondi, Cotugnia intermedia* and *Railliemicrocantha*). Results also show increase in total white blood cells (leucocytosis)
specifically eosinophils (22.03 c*10/mm) in infected pigeons. The results showed bad biometric status and bad nutrient as compared with control group.

25. **Nwokorosm, O. (2007):** The environmental factor in the sustainability of poultry production cannot be questionable. But the impact of creatures found in and around poultry houses especially the open sided type found in the tropical and some parts of subtropics is alarming in recent times. This paper examined some of this unwanted creatures whose presence has been established over the years. These among others include those in the broad groups such as aves, reptiles, ants, beetles, weevils and bugs. Others are flies, rodents, cockroaches and endoparasites. The pathological effective roles associated with most of them in the poultry houses are highly varied and characteristically permanent.

26. **Ogabaje, C. I. (2012):** A survey was conducted to determine the prevalence of gastrointestinal helminthes in local chickens, broilers and layers slaughtered in Makurdi metropolis between September 2007 and April 2008. A total of 440 samples were collected from male and female chickens. This study has highlighted the need for proper medication in flocks in Makurdi.

27. **Opara, M. N. (2012):** The study was conducted to determine the haematological and biochemical indices and the naturally occurring haemo and gastrointestinal microbes of 150 matured street pigeons in Owerri, Imo State, Nigeria. The PCV, WBC, MCV, MCH and bilirubin values of the female pigeons were significantly (p<0.05) total different from the male counterpart. All the other haematological and
serum biochemical parameters measured were similar (p>0.05) between the two group. Out of 150 street pigeons examined for prevalence of parasites, 70 (46.70%) of them were infected with gastro-intestinal parasites of which 30 (42.93%) were males and 40 (57.1%) were females.

Contents lists available at SjournalsJournal homepage: www.Sjournals.com Original article in street pigeons in Owerri, Imo State, Nigeria. However, these parasites did not cause any visible deleterious effects in the blood parameters of the pigeons examined.

28. Phiri, I. K. (2007): Examination of helminths from gastrointestinal tracts of 125 free-range chickens in Zambia revealed a 95.2% prevalence rate. The species and their prevalences were:

29. Retamales, J. (2011): Los insectos son una comunicación la instalaciones de la industria avícola y diferentes medidas de bioseguridad se aplican para evitar su propagación debido al hecho que pueden acarrear agentes patógenos. Por lo tanto, es de suma importancia saber qué insectos comúnmente están presentes en los galpones avícolos para optimizar los protocolos de control. Por lo tanto, las fugas de los dispositivos de suministro de agua se han convertido en un punto crítico de control de estas plagas entomológicas de las aves de corral, las cuales han sido reportadas como portadoras de una gran variedad de virus, bacterias y parásitos eucariotas.

30. Ramkumar, R. (2011): Parasites are encountered uncommonly
in routine histopathologic practice. Among them, cestodes form a major bulk. Cysticercosis heads the list forming the bulk of cases followed by Hydatidosis and Sparganosis. Microscopic identification of inflammation with surrounding reactions along with other morphological features forms the mainstay of diagnosis of parasitic diseases on histopathology. Identification of the parasites on histopathological examination would reduce the cost-diagnosis ratio avoiding expensive serological investigation.

Rabbi, A.K. M. A. (2006): The prevalence of gastrointestinal helminth parasites and the gross pathological lesions produced by them in different types of poultry were studied from March 2005 to March 2006, in the Department of Parasitology, Bangladesh Agricultural University, Mymensingh. In this study, 240 viscera of three types of poultry such as broiler, layer and backyard indigenous chickens were collected from local markets of Mymensingh district. During routine examination, total six species of helminth parasites were recorded. Results of the present study suggest that the backyard poultry is at the high risk of helminth infection. However, layers are also vulnerable to parasitic infection. So regular deworming is essential both in backyard poultry and layer birds to obtain better production from them.

Silva, G.S. (2007): Effectiveness, biological security and the absence of residues in meat and/or eggs must be considered when recommending options for the control of Alphitobius diaperinus in poultry production environments. This research study evaluated the effectiveness of
cypermethrin+chlorpyrifos+citronellal in the control of A. diaperinus, including analysis for the presence of residues of this compound in poultry carcasses (experimental farm). Gas chromatography was used to identify the possible presence of any chemical residue in these samples. High effectiveness rates against A. diaperinus were observed in the two laboratory studies, as well as the absence of residues in the carcasses. This compound, used in the studied concentrations, can be recommended as a valuable alternative for the control and treatment of A. diaperinus.

33. **Sharmin, M. (2011):** Occurrence of ecto- and endo parasites in pigeon (*Columba livia* Linn.) Pigeons (Order Columbiformes) are ubiquitous birds and can be found in virtually every town and city around the globe. Pigeons are related to human since ancient time.

34. **Shahin, A.M. (2011):** Eight hundred and sixty chickens of different ages representing all types of production were collected either moribund or freshly dead. Thirty-Seven birds out of 860 examined chickens, showed infestation with different types of cestode worms with percentage of 4.3%. The highest incidence was recorded in backyard chickens while no infestation was recorded in broilers.

35. **Sabry, E.A. (2012):** The genomic DNA was extracted from cestode parasites, *Cotugniapolycantha* from two different hosts, doves (*Streptopliasenegalensis*) and pigeons (*Columba liviadomestica*). The random amplified polymorphic DNA-polymerase chain reaction (RAPD-PCR) was applied to differentiate between *C.*
*polycantha* infecting doves and pigeons. Molecular analysis of the present data, showed that *C. polycantha* infecting doves (*S. senegalensis*) differs from that infecting pigeons.

36. **Shazia, N. (2012)**: The aim of the study was to observe parasitic Effect on lipase and glucose content in the tissue of artificially infested host pigeon with cestode parasites. Gastro-intestinal tract associated organs were extracted from the body cavity of dissected animal. Gizzard, liver, spleen, pancreas were separated and preserved. Thereafter, Lipase and glucose determination was carried out from these organs.

37. **Saleque, M.A. (2003)**: The pattern of occurrence of poultry diseases in commercial poultry farms was studied on post-mortem & other laboratory examination of 3057 cases either date or live chicken submitted for diagnosis of diseases at the BRAC poultry disease Diagnostic centre.

38. **Tesfaheywet, Z. (2012)**: A cross-sectional study was carried out in three selected small scale commercial poultry farms in and around Haramaya woreda, Southeastern Ethiopia, from November 2011 to April 2012 with the aim of determining the prevalence and associated risk factors of helminthosis. For this purpose 384 chickens were randomly selected from different age groups of both sexes, kept under various management systems. Simple salt floatation technique was employed for coprological examination in the study. The study indicated that helminth parasites are highly prevalent in small scale poultry farms in the study area. Therefore, sustainable ways of controlling these parasites and further studies on period prevalence of helminth parasites in chickens need to be designed for improved intensive egg and poultry meat production.
39. **Waghmare, S.B (2010)**: Present investigation includes the quantitative estimation of carbohydrate metabolism i.e., total glycogen, pyruvate, lactic acid, lactate dehydrogenase, malate dehydrogenase, phosphotases activity in cestodespecies of *Gallus gallus domesticus* The significance of various amount of pyruvate in anaerobic intestinal parasites and various factors of its role was also discussed.

40. **Yoriyo, K. P (2008)**: The prevalence of helminthes infections in Domestic fowls in Bauchi was carried out aimed at providing information on their species composition and prevalence. Two hundred chickens comprising of one hundred males and one hundred females were collected on a weekly basis for eight months and screened for helminthes parasites