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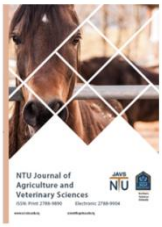

Prevalence of disease conditions detected among slaughtered cattle in Kwara State, North-Central Nigeria

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A B S T R A C T

Records from abattoirs about carcass and viscera inspection are vital avenues of tracking disease conditions, establishing possible trends, and losses due to diseases. The aims of this study were to report the disease conditions detected among slaughtered cattle in Kwara State, North-Central Nigeria, and to determine the prevalence and seasonal influence of these disease conditions. A one-year (January 2022 – December 2022) record of disease conditions detected in cattle at slaughter based on daily inspection that was conducted by at least one qualified veterinarian in the major abattoirs in Ilorin was retrieved. Six disease conditions were reported from the 55,912 slaughtered cattle, with pneumonia, tuberculosis, and helminthosis being the most prevalent, with prevalences of 8.98% (95% CI = 8.75 – 9.22), 5.84% (95% CI = 5.65 – 6.04), and 3.85% (95% CI = 3.69 – 4.01), respectively. The prevalences of the other disease conditions were 2.14%, 0.83%, and 0.57% for abscess, mange, and pericarditis, respectively. There was a significant difference ($P < 0.05$) in the prevalence of disease conditions in relation to the months and seasons of the study, with this finding exhibiting a non-defined pattern. This study confirms the presence of different disease conditions among slaughtered cattle in Kwara State, North-Central Nigeria.

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Introduction

An abattoir is a facility where livestock animals such as cattle, sheep, goats, etc., are humanely slaughtered for meat production. Abattoir practices are essential to ensuring that safe and healthy meat products are passed for human consumption [1, 2]. Abattoirs are also an excellent avenue for the early detection of livestock and poultry diseases of economic and public health significance [3]. Monitoring and other conditions at slaughterhouses have been establsihed as one way of assessing the disease status of animals, including cattle [4, 5]. Major disease conditions such as fasciolosis, tuberculosis, hydatid cyst, pericarditis, cysticercosis, pneumonia, and other organ condemnations like cirrhosis and abscess cause a significant economic loss by lowering the productivity of cattle and condemnation of edible organs [3, 5, 6]. Data from meat inspection records have been a najor source of information for evaluating the epidemiological aspects and economic implications of bacterial, fungal, nutritional, parasitic, and viral diseases of animals in several countries of the world [6, 7, 8, 9].

Nigeria is considered as the largest livestock producer in sub-Saharan Africa, with an estimated population of 17 million cattle, and a larger number of this population is found in the northern region of the country [10, 11]. Generally, disease conditions in cattle can cause anorexia, unthriftiness, gut damage, anemia, diarrhea, gastroenteritis, abdominal distention, pain, depression, reduced feed intake, reduced absorption of nutrients, emaciation, abortions, reduced milk and meat production, reduced working capacity of the animals, amd even death, mainly in developing countries [12, 13]. Livestock (including cattle) farming is one of the most important sectors, representing a valuable asset in both modern and traditional agriculture in sub-Saharan Africa, as well as in other tropical and subtropical counties of the world, providing milk and beef during festivities around the world, hides and skin for leather production, employment, flexible income for family units, as a source of farm energy, and manure [14, 15].

The aims of this study were to report the disease conditions detected among slaughtered cattle in Kwara State, North-Central Nigeria, and to determine the prevalence and seasonal influence of these disease conditions.

Materials and Method

Study area

This study was conducted in Kwara State, a transition state between the southern and northern regions of Nigeria. The state is located at the north-central geopolitical zone of Nigeria, with geographical coordinates of longitude 2°73E and 6°13E and latitude 8°05N and 10°15N. The seasons of the state can be grouped into four: the early wet season (April–June), the late wet season (July–September), the early dry season (October–December), and the late dry season (January–March). The state has a mean annual temperature ranging from 22.1 to 33.3°C, an average annual rainfall of between 112.8 cm and 146.9 cm, and a mean relative humidity of 49.6%. Ilorin is the administrative capital of Kwara State, it is the largest and most populous city in the state. It covers three of the sixteen local government areas of the state [16, 17].

Ethical Approval

The ethical review committee of the faculty of Veterinary Medicine, University of Ilorin, Ilorin, Nigeria, approved and endorsed the research study with the approved reference number UREC/FVM/21/074.

Study design

A year data (January 2022– December 2022) on cases of all disease conditions recorded based on carcass and viscera condemnation was retrieved from the major abattoirs in Ilorin (comprising of Ilorin South, Ilorin West, and Ilorin East Local Government Areas. Records were acquired from the veterinary record books at the Kwara State Veterinary Department of the Ministry of Agriculture and Natural Resources. Carcass and viscera inspection was carried out by an experienced team of Veterinarians. The different disease conditions observed were recorded on standardized data sheets as received from the State Veterinary Department. Carcass and viscera inspections were done using the eye-and-knife method (this involves the visual examination, palpation, and incision of organs and lymph nodes. This helps to identify gross pathological lesions and calcification in the carcass and viscera) as prescribed by the Food and Agriculture Organization of the United Nations [18].

Determination of prevalence

The total prevalence of each disease condition was calculated as the total number of each

condition detected at slaughter divided by the total number of slaughtered cattle examined multiplied by 100. The monthly prevalence rate was calculated as the total number of disease conditions detected at slaughter in a given month divided by the total number of slaughtered cattle examined in the said month multiplied by 100, while the seasonal prevalence was calculated as the total number of disease condition detected at slaughter in each season divided by the total number of cattle examined in the said season multiplied by 100.

Statistical analysis

The retrieved data were statistically analyzed using the ''Microsoft Excel 2010 and SPSS-Version 23.0'' (SPSS Inc., Chicago). Descriptive statistics were conducted to estimate the prevalence using percentages in tables. The univariate analysis (chi-square) test was used to determine the association between months and seasons and the presence or absence of each disease condition. Significance was calculated with respect to a reference category as indicated in the tables. A p-value less than 0.05 was considered significant.

Results

The prevalence of disease conditions among the 55,912 slaughtered cattle during the study period in the study area showed that pneumonia, tuberculosis, and helminthosis were the most prevalent disease conditions, with prevalences of 8.98% (95% CI = 8.75 – 9.22), 5.84% (95% CI = 5.65 – 6.04), and 3.85% (95% CI = 3.69 – 4.01), respectively. The prevalences of the other disease conditions detected were 2.14%, 0.83%, and 0.57% for abscess, mange, and pericarditis, respectively (Table 1).

The monthly prevalence of disease conditions in this study is presented in Table 2. This finding revealed that abscesses were most prevalent in December (125/5,838; 2.18%) and least prevalent in November, with a prevalence of 2.11% (126/5,882). The monthly prevalence of the disease condition in the other months ranged from 2.12% (January) to 2.15% (June and October). There was no statistical difference ($P > 0.05$) in the prevalence of abscesses within the months. For helminthosis, the highest prevalence was recorded in August (6.28%), while the lowest prevalence was recorded in November (2.38%). The other monthly prevalence ranged from 2.42% in February to 5.57% in June. The variation in the prevalence of helminthosis with the months was statistically significant ($P < 0.05$). The prevalence of mange within the months ranged between 1.59% and 0.36% as recorded in June and December, respectively, with these ranges being statistically significant ($P < 0.05$). For pericarditis, the prevalence was highest in August with a prevalence of 0.96% (40/4,157) and lowest in February with a prevalence of 0.30% (14/4,635). The other prevalence ranges between 0.32% and 0.85% as observed in November and June, and these differences were statistically significant ($P < 0.05$). For pneumonia and tuberculosis, there was a statistical difference ($P < 0.05$) in their monthly prevalence, with the highest and lowest prevalences of both disease conditions observed in May and December, respectively. The range of the monthly prevalence for pneumonia was 0.02% to 30.05%, and for tuberculosis it was between 0.07% and 1.07%.

The seasonal counts and prevalence of disease conditions detected among slaughtered cattle showed there was no statistical difference ($P > 0.05$) in the occurrence of abscesses within the seasons. There was a significantly higher prevalence during the late wet season (5.17%) compared to other seasons for the occurrence of helminthosis. Mange was significantly ($P < 0.05$) more prevalent during the late wet (1.12%) and early wet (1.06%) seasons compared to the late dry (0.54%) and early dry (0.65%) seasons. Pericarditis was most prevalent during the late dry season (0.63%) and least prevalent during the early wet season (0.45%), with prevalences of 0.58% and 0.61% observed during the late wet and early dry seasons, as these differences were not statistically significant ($P > 0.05$). Pneumonia and tuberculosis were significantly higher ($P < 0.05$) during the early wet season compared to the other seasons (Table 3).

Discussion

This study demonstrated the usefulness of meat inspection records in monitoring disease conditions and illustrated possible seasonal trends of the investigated causes of carcass and visceral condemnation. Although abattoir surveys have limitations, they are an economical way of gathering information on cattle and other livestock diseases, especially in a developing country like Nigeria. Postmortem meat inspection is intended to spot and remove from the food chain all carcasses and viscera with grossly identifiable abnormalities that may affect the safety, security, and wholesomeness of the meat product [19, 20].

Abscess, helminthosis, mange, pericarditis, pneumonia, and tuberculosis were the disease conditions reported in this study, with pneumonia, tuberculosis, and helminthosis being the most prevalent. These conditions had been reported among slaughtered cattle in Nigeria [21, 22] and other parts of the world [3, 20, 23]. In line with the observation in this study, pneumonia, tuberculosis, and helminthosis were reported to be the most prevalent disease conditions among slaughtered cattle in Arusha, Tanzania [23], Umuahia, Southeast Nigeria [2], and Jalingo, Northeast Nigeria [21], respectively.

Pneumonia is an inflammation of the lung parenchyma characterized by enlargement, hyperaemia, and sometimes oedema, and it is most commonly caused by infectious (bacteria, viruses, and fungi) or non-infectious agents [23]. Tuberculosis is considered the biggest killer in the last 200 years when compared with other serious diseases. It affects a wide range of mammals and has been identified for thousands of years [24]. Bovine tuberculosis is caused by *Mycobacterium* species, among which *M. bovis* and *M. tuberculosis* are the major causes of the disease. These species are highly pathogenic and may infect many animal species as well as humans [25, 26]. Bovine TB has a marked economic importance because of loss in productivity, morbidity, and mortality, in addition to the potential zoonotic threat [27]. Helminthosis in cattle is caused by parasitic worms such as nematodes, trematodes, and cestodes [28]. Helminth infection is one of the major causes of wastage and decreased productivity, exerting its effect through mortality, morbidity, decreased growth rate, weight loss in young growing calves, and late maturity of slaughter stock [12, 28, 29].

The monthly prevalences of the various disease conditions showed a non-defined pattern. This may be attributed to government policies at different times, irregularities in the migration and importation of cattle, and the relative competence of the veterinarians who were involved in the inspection of carcasses and viscera of cattle [15].

The higher prevalence of helminthosis observed during the late wet season compared to other seasons in this study could be attributed to the high volume of intermediate hosts of trematodes (snails, etc.) and active infective stages of nematodes (larval stage 3) that are available at the grazing pastures during the wet season. This observation could also be that infection with helminth parasites occurred in the early rainy season and the disease manifested during the late dry season [9, 15]. In tandem with the observation about mange in this study, Kebede and Hirpa [30] reported a higher occurrence of mange in cattle during the wet season than the dry season. They stated that rains favour the spread of the infestation. The wet season brings about increased vegetation and moisture, which support host presence and mite development, thereby increasing the disease incidence. Additionally, cold and dry weather reduces the survival of larvae, nymphs, engorged females, and unfed adults, leading to lower infestation rates as mites tend to hide in cracks and crevices during the dry season [31]. Higher prevalence of pneumonia has been reported during the wet season compared to the dry season, as the causative organism spreads readily during the rainy season [32], which is in tandem with the findings of this study. The higher occurrence of bovine tuberculosis recorded during the wet season compared to the dry season in this study aligns with the report of Danladi et al. [33], where the disease condition was more prevalent during the rainy season compared to the dry season. This could be attributed to the fact that bacteria multiply and spread more during the rainy season due to the favorable conditions created by increased rainfall and moisture.

Conclusion

Abscess, helminthosis, mange, pericarditis, pneumonia, and tuberculosis were the disease conditions reported among slaughter cattle, with pneumonia, tuberculosis, and helminthosis being the most prevalent in Kwara State, North-central Nigeria. There was a significant difference ($P < 0.05$) in the prevalence of the disease conditions in relation to months and seasons of the study, with this finding having a non-defined pattern of these disease conditions among slaughter cattle. The findings of this study may be deeply linked to Nigeria's extensive, largely unregulated livestock management system, high-stress climatic conditions, and an inadequate veterinary infrastructure

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Competing Interests

The authors declare that there are no conflicts of interest regarding this manuscript.

References

[1] Shima, K., Mosugu, I. and Apaa, T. (2015) Assessment of livestock slaughtered for food and meat inspection issues in selected abattoirs in Benue State, Nigeria. *Cogent Food Agric*., 1(1) 1106386.

[2] Dike, M.C., Obisike, v.u., Nawugo, V.O., Enwereji, E.E. and Chinaza, O.P.L. (2025) Assessment of Abattoir Procedures and Zoonotic Diseases Common in Cattle Slaughtered in Lokpanta Cattle Market. *Sci. Res*., 13(4) 119–127. https://doi.org/10.11648/j.sr.20251304.18

[3] Atawalna, J., Gbordzi, M., Emikpe, B.O. and Anyorigeyah, T. (2016) Whole carcass and organ condemnation and their associated financial losses in Ruminants Slaughtered at the Bolgatanga Municipal Abattoir of Ghana. *Int. J. Vet. Sci.*, 5(1) 5–9.

[4] Shakir, T. (2024) Prevalence of Zoonotic Diseases in Zango Tudun Wada Abattoir, Kaduna: A Cross-Sectional Study. *Medtigo J Med*., 2(4) e30622463. doi:10.63096/medtigo30622463

[5] Abera, A.T. (2021) Major causes of organ and carcass condemnation and its Financial loss at Wacha municipal Abattoir, SNNPR, Ethiopia. *Int. J. Adv. Res. Biol. Sci*., 8(2) 50–57.

[6] Borji, H. and Parandeh, S. (2012) Abattoir condemnation of meat because of parasitic infection, and its, economic importance: results of a retrospective study in north-eastern Iran. *Ann. Trop. Med. Parasitol*., 104(8) 641–647.

[7] Ezatpour, B., Hasanvand, A., Azami, M., Anbari, K. and Ahmadpour, F. (2015) Prevalence of liver fluke infections in slaughtered animals in Lorestan, Iran. *J. Parasit. Dis*., 39(4) 725–729. https://doi.org/10.1007/s12639-014-0428-4

[8] Jaja IF, Mushonga B, Green E, Muchenje V (2017) Financial loss estimation of bovine fasciolosis in slaughtered cattle in South Africa. *Parasite Epidemiol. Control*, 2 27–34. https://doi.org/10.1016/j.parepi.2017.10.001

[9] Ola-Fadunsin, S.D., Uwabujo, I.P. and Adebanjo, A.O. (2020) A retrospective study on viscera condemnation in small ruminants due to parasitic infections and its economic implications, in Ilorin, Nigeria. *Veterinaria*, 69(2) 129–134.

[10] Lemy, E.E. and Egwunyenga, A.O. (2018) Epidemiological study on some parasitic Helminths of Cattle in Delta North, Delta State, Nigeria. *J. Anim. Health Behav. Sci.,* 2(1) 113–116.

[11] Ola-Fadunsin, S.D., Ademola, I.O., Adejinmi, J.O. and Okediran, B.S. (2021) Haemoparasites and the haemato-biochemical profiles associated with *Anaplasma marginale* infections of cattle in Ilorin, Nigeria. *Veterinaria*. 70(3) 335–349. https://doi.org/10.51607/22331360.2021.70.3.335

[12] Ola-Fadunsin, S.D. (2017) Retrospective occurrence and risk factors associated with cattle parasitic infections in Osun State, Nigeria. *Nig. Vet. J*., 38(3) 195–209.

[13] Alobaidii, W.A., Abdullah, D.A., Alkatab, Y.N.M., Ali, S.A., Ola-Fadunsin, S.D. and Gimba, F.I. (2024) First Molecular investigation of *Besnoitia besnoiti* infections among cattle in Mosul, Iraq. *Mol. Biol. Rep*., (2024) 51 585, 7 pages.

[14] Bisimwa, N.P., Lugano, R.M., Bwihangane, B.A., Wasso, S.D., Kinimi, E., Banswe, G. and Bajope, B. (2018) Prevalence of Gastro-Intestinal Helminths in Slaughtered Cattle in Walungu Territory, South Kivu Province, Eastern Democratic Republic of Congo. *Austin J. Vet. Sci. Anim. Husb*., 5(1) 1039–1044.

[15] Ola-Fadunsin, S.D., Uwabujo, I.P., Halleed, I.N. and Richards, B. (2020) Prevalence and financial loss estimation of parasitic diseases detected in slaughtered cattle in Kwara State, North-central Nigeria. *J. Parasit. Dis*., 44(1) 1–9.

[16] National Bureau of Statistics (NBS). (2016) Annual Abstract of Statistics. Federal Republic of Nigeria.

[17] Ola-Fadunsin, S.D., Abdullateef M.A., Olugbon, A.S., Abdullah, D.A., Al-Alkateb, Y.N. and Furo, N.A. (2024) Knowledge, Attitude, and Practices of Poultry Farmers in Kwara State Concerning Chicken Coccidiosis and Its Control. *NTU J. Agric. Vet. Sci.* 4(4) 209-221. https://journals.ntu.edu.iq/index.php/NTU-JAVS/article/view/1232

[18] Herenda, D., Chambers, P.G., Ettriqui, A., Seneviratna, P. and da Silva, T.J.P. (2010) Diseases in manual on meat inspection for developing countries. FAO Animal Production and Health Paper 119. *Food and Agriculture Organization of the United Nations Rome*, pp 219–272

[19] Thomas-Bachli, A.L., Pearl, D.L., Friendship, R.M. and Berke, O. (2014) Exploring relationships between whole carcass condemnation abattoir data, non-disease factors and disease outbreaks in swine herds in Ontario (2001–2007). *BMC Res. Notes*, 7 185.

[20] Mohamed, D.K.A. (2021). A study on causes of cattle liver condemnation at an abattoir in Omdurman area, Khartoum State, Sudan. *BMC Vet. Res*., (2021) 17 58. https://doi.org/10.1186/s12917-021-02766-4

[21] Jibrin, N. and Aliyara, Y. H. (2025) Prevalence of gastrointestinal helminths among slaughtered cattle at Jalingo abattoir, Taraba State, Nigeria. *Niger. J. Agric. Agric. Technol*., 5(4) 206– 212.

[22] Nwankwo, I.O., Onunkwo, J.I., Ogugua, A.J. and Ezugwu, R.N. (2019) Gross pathological conditions in eviscerated organs of cattle in Nsukka Slaughter Slab, Enugu State: The economic and public health implications. *Nig. J. Anim. Prod*., 46(5) 40–45.

[23] Mellau, L.S.B., Nonga, H.E. and Karimuribo, E.D. (2010) A slaughterhouse survey of lung lesions in slaughtered stocks at Arusha, Tanzania. *Prev. Vet. Med*., 97 77–82. doi:10.1016/j.prevetmed.2010.08.008

[24] Elsayed, M.S.A.E. and Amer A. (2019) The rapid detection and differentiation of *Mycobacterium tuberculosis* complex members from cattle and water buffaloes in the delta area of Egypt, using a combination of real-time and conventional PCR. *Mol. Biol. Rep.,* 46 3909–3919. doi: 10.1007/s11033-019-04834-3

[25] Romha, G., Gebru, G., Asefa, A. and Mamo, G. (2018) Epidemiology of Mycobacterium bovis and Mycobacterium tuberculosis in animals: Transmission dynamics and control challenges of zoonotic TB in Ethiopia. *Prev. Vet. Med*., 158 1–17. doi: 10.1016/j.prevetmed.2018.06.012.

[26] Borham, M., Oreiby, A., El-Gedawy, A., Hegazy, Y., Khalifa, H.O., Al-Gaabary, M. and Matsumoto. T. (2022) Review on Bovine Tuberculosis: An Emerging Disease Associated with Multidrug-Resistant *Mycobacterium* Species. *Pathog*., 11(7) 715. doi: 10.3390/pathogens11070715.

[27] Brahma, D., Narang, D., Chandra, M., Filia, G., Singh, A. and Singh S.T. (2019) Diagnosis of Bovine Tuberculosis by Comparative Intradermal Tuberculin Test, Interferon Gamma Assay and esxB (CFP-10) PCR in Blood and Lymph Node Aspirates. *Open J. Vet. Med*., 9 55–65. doi: 10.4236/ojvm.2019.95005.

[28] Ola-Fadunsin, S.D., Ganiyu, I.A., Rabiu, M., Hussain, K., Sanda, I.M., Baba, A.Y., Furo, N.A. and Balogun, R.B. (2020) Helminth infections of great concern among cattle in Nigeria: Insight to its prevalence, species diversity, patterns of infections and risk factors. *Vet. World*, 13(2) 338–344. doi: 10.14202/vetworld.2020.338-344.

[29] Telila, C., Abera, B., Lemma, D. and Eticha, E. (2014) Prevalence of gastrointestinal parasitism of cattle in East Showa Zone, Oromia Regional State, Central Ethiopia. *J. Vet. Med. Anim. Health*, 6(2) 54–62.[30] Kebede, A. and Hirpa, S. (2022) Prevalence and Identification of Mange Mites on Cattle in and Around Nekemte Town, East Wollega Zone, Oromia Regional State, Western Ethiopia. *Vet. Med. (Auckl)*., 13 109-116. doi: 10.2147/VMRR.S353983

[31] Ranjan, R., Nath, K., Upadhyay, V.R., Gautam, P. and Sawal. R.K. (2025) Effect of seasonal and climatic factors on mange infestation in dromedary camel. *Indian J. Anim. Sci.* 95(6) 566–570. https://doi.org/10.56093/ijans.v95i6.161716

[32] Choudhary, M., Choudhary, B.K., Ghosh, R.C., Bhoyar, S., Chaudhari, S. and Barbuddhe, S.B. (2019) Cultivable microbiota and pulmonary lesions in polymicrobial bovine pneumonia. *Microb. Pathog.*, 134 103577. https://doi.org/10.1016/j.micpath.2019.103577

[33] Danladi, J., Kwaghe, A.V., Olasoju, T., Ibrahim, H.I., Buba, M.I., Dakogi, A.Y. and Vakuru, C.T. (2014) Prevalence, trends, and magnitude of bovine tuberculosis in slaughtered cattle across States in Nigeria, 2020-2022: a retrospective study. *PAMJ One Health*, 15 20. 10.11604/pamj-oh.2024.15.20.45323

Table 1. Total prevalence (%) of disease conditions detected among slaughtered cattle in Kwara State, Nigeria (n = 55,912)

Disease conditions	Number with signs	Number without signs	Prevalence (%)	95% CI
Abscess	1,196	54,716	2.14	2.02 – 2.26
Helminthosis	2,151	53,761	3.85	3.69 – 4.01
Mange	462	55,450	0.83	0.75 – 0.90
Pericarditis	319	55,593	0.57	0.51 – 0.64
Pneumonia	5,021	50,891	8.98	8.75 – 9.22
Tuberculosis	3,268	52,644	5.84	5.65 – 6.04

Table 2. Monthly counts and prevalence (%) of disease conditions detected among slaughtered cattle in Kwara State, Nigeria (n = 55,912)

Month	N	Abscess	Helminthosis	Mange	Pericarditis	Pneumonia	Tuberculosis
Jan	4,816	102 (2.12) [a]	169 (3.51) [a]	28 (0.58) [a]	24 (0.50) [a]	407 (8.11) [b]	216 (0.30) [b]
Feb	4,635	99 (2.14) [a]	112 (2.42) [b]	17 (0.37) [a]	14 (0.30) [a]	38 (0.76) [b]	129 (0.19) [b]
Mar	4,346	93 (2.14) [a]	157 (3.61) [a]	30 (0.69) [b]	22 (0.51) [a]	205 (4.08) [b]	92 (0.14) [b]
Apr	4,634	99 (2.14) [a]	134 (2.89) [a]	32 (0.69) [b]	18 (0.39) [a]	346 (6.89) [b]	311 (0.45) [b]
May	4,718	101 (2.14) [a]	159 (3.37) [a]	45 (0.95) [b]	24 (0.51) [a]	1509 (30.05) [b]	754 (1.07) [b]
Jun	4,095	88 (2.15) [a]	228 (5.57) [b]	65 (1.59) [b]	35 (0.85) [a]	348 (6.93) [b]	518 (0.85) [b]
Jul	4,154	89 (2.14) [a]	201 (4.84) [b]	47 (1.13) [b]	31 (0.75) [a]	1 (0.02) [a]	48 (0.08) [a]
Aug	4,157	89 (2.14) [a]	261 (6.28) [b]	51 (1.23) [b]	40 (0.96) [b]	643 (12.81) [b]	260 (0.42) [b]
Sep	4,256	91 (2.14) [a]	188 (4.42) [b]	43 (1.01) [b]	28 (0.66) [a]	461 (9.18) [b]	291 (0.46) [b]
Oct	4,381	94 (2.15) [a]	215 (4.91) [b]	48 (1.10) [b]	32 (0.73) [a]	2 (0.04) [a]	411 (0.63) [b]
Nov	5,882	126 (2.11) [a]	140 (2.38) [b]	35 (0.60) [a]	19 (0.32) [a]	1060 (21.11) [b]	176 (0.20) [b]
Dec‡	5,838	125 (2.18) [a]	187 (3.20) [a]	21 (0.36) [a]	32 (0.55) [a]	1 (0.02) [a]	62 (0.07) [a]

N = Number of cattle

‡Reference category

Different alphabets (a, b) between columns from that of the reference category = Significant at P <0.05

Table 3. Seasonal counts and prevalence (%) of disease conditions detected among slaughtered cattle in Kwara State, Nigeria (n = 55,912)

Seasons	N	Abscess	Helminthosis	Mange	Pericarditis	Pneumonia	Tuberculosis
Early dry	16,101	345 (2.14) [a]	542 (3.37) [b]	104 (0.65) [b]	99 (0.61) [a]	1,063 (6.60) [b]	649 (4.03) [b]
Late dry	13,797	294 (2.13) [a]	438 (3.17) [b]	75 (0.54) [b]	87 (0.63) [a]	650 (4.71) [b]	437 (3.17) [b]
Early wet	13,447	288 (2.14) [a]	521 (3.87) [b]	142 (1.06) [a]	60 (0.45) [a]	2,203 (16.38) [b]	1,583 (11.77) [b]
Late wet‡	12,567	269 (2.14) [a]	650 (5.17) [a]	141 (1.12) [a]	73 (0.58) [a]	1,105 (8.79) [a]	599 (4.77) [a]

N = Number of cattle

‡Reference category

Different alphabets (a, b) between columns from that of the reference category = Significant at P <0.05