

Veterinary Pathogens and its Economical Importance

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Editorial

The bloodborne pathogens are microorganisms present in blood or bodily fluids of infected individuals or animals that can cause disease. The most common infectious diseases of veterinary importance include several species of Trypanosoma, Theileria, Babesia and Anaplasma [1] Many zoonotic bloodborne pathogens circulate between animals and humans affecting human health and economic sectors. The cost of zoonotic diseases has been estimated about U\$20 billion and affect economies as a whole [2].

Trypanosoma is a hemoprotozoan that infect human and animal in the world [3]. Trypanosoma evansi is a trypanosoma specie of veterinary importance. The parasite is the agent of surra originating from Africa and it able to infect a very large range of domestic and wild hosts and can be fatal in the absence of treatment. The infection exhibits nonspecific clinical signs as anaemia, loss of weight, abortion and death [1,3]. Total economic losses can exceed U\$ 160 million per year with treatment of seropositive animals [4].

The phylum Apicomplexa is a large group of eukaryotic organisms and include the group Piroplasmorida. The Piroplasmorida group comprises two genera (Babesia and Theileria) and it is responsible for the economic diseases of domestic and wild animals [5]. Theileria species is responsible to

large economic losses due to disease outbreaks, mortalities, and poor production in bovines. Parasite cause anemia, jaundice, growth retardation and reduced body weigh in cattle [5,6]. The theileriosis cause significant global economic loss of U\$ 7 billion a year [7].

Babesia parasites are intraerythrocytic protozoan of many species of economic importance in the livestock industry [8]. Babesiosis is a disease characterized by fever, weakness, ataxia, haemoglobinuria, anaemia [9]. Babesiosis accounted about U\$ 50 million per year to treatment and the economic loss is about U\$ 3 million associated with mortality, chemotherapy [10].

References:

1. [BR Maharana, AK Tewari, BC Saravanan, NR Sudhakar. Important hemoprotozoan diseases of livestock: Challenges in current diagnostics and therapeutics: An update, Vet. World. 9 2016; 487–495.](#)
2. [C Narrod, J Zinsstag, M Tiongco. A One Health Framework for Estimating the Economic Costs of Zoonotic Diseases on Society, Ecohealth. 2012; 150–162.](#)

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3. [M Desquesnes, P Holzmuller, DH Lai, A Dargantes, ZR Lun, S Jittaplaong. Trypanosoma evansi and Surra: A Review and Perspectives on Origin, History, Distribution, Taxonomy, Morphology, Hosts, and Pathogenic Effects. Biomed Res. Int. 2013; 1–22.](#)
4. [AA Salah, I Robertson, A Mohamed. Estimating the economic impact of Trypanosoma evansi infection on production of camel herds in Somaliland, Trop. Anim. Health Prod. 2015; 707–714.](#)
5. [BJ Mans, R Pienaar, AA Latif. A review of Theileria diagnostics and epidemiology, Int. J. Parasitol. Parasites Wildl. 2015; 104–118.](#)
6. [J Park, JB Chae, S Kim, DH Yu, HC Kim, BK Park, et al. Evaluation of the efficacy of ivermectin against Theileria orientalis infection in grazing cattle, BMC Vet. Res. 2019; 297.](#)
7. [A Inci, A Ica, A Yildirim, Z Vatansver, A Cakmak, H Albasan, et al. Economical impact of tropical theileriosis in the Cappadocia region of Turkey, Parasitol. Res. 2007; 171–174.](#)
8. [A Zintl, G Mulcahy, HE Skerrett, SM Taylor, JS Gray. Babesia divergens, a Bovine Blood Parasite of Veterinary and Zoonotic Importance, Clin. Microbiol. Rev. 2003; 622–636.](#)
9. [JJ Yusuf. Review on Bovine Babesiosis and its Economical Importance. J Vet Med Res. 2017; 1090.](#)
10. [FM Kivaria, Estimated direct economic costs associated with tick-borne diseases on cattle in Tanzania, Trop. Anim Health Prod. 2006; 291–299.](#)

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