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## Cattle Diseases in Dairy Herds in Tanzania - Farmers View and Laboratory Confirmation

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### Abstract

Cattle diseases remain a major constraint to increasing dairy productivity in Tanzania, by killing or keeping them sick and under-producing. Recent studies report overall mortality between 12 and 14% in smallholder dairy cattle across different regions of Tanzania. Many of these diseases can also be transmitted to people, causing illness and/or even death. Existing information on the diseases affecting dairy cattle in Tanzania and their relative importance is limited and relies either on passive reporting by poorly resourced veterinary services or on localised surveys focused on a specific well known diseases. The causes of cattle diseases remain often unknown and differential diagnosis is not conducted leading to mistreatment or ineffective treatment. Addressing this concerns a survey was conducted among cattle farmers in two regions in Tanzania using participatory techniques to collect information on disease importance supported by laboratory investigations on commonly expected cattle pathogens but also those seldom looked for but known to be important in other regions. For this purpose blood samples were collected from cattle (n=402) reported by farmers to be sick and subjected to a range of tests (ELISA) including tick borne diseases, selected zoonoses (brucellosis, Q Fever), infectious bovine rhinotracheitis, bovine viral diarrhea (BVD) and bovine respiratory syncytial virus (BRSV) among other pathogens. Biological sampling was aligned with data collection on farm and diseases management. Results indicate that diseases are common for the region. Among those most prominent were East Coast fever and Anaplasmosis (32% each). Also important zoonoses were found (e.g. Brucellosis, 11%). High numbers of positive tested sera were also reported for pathogens commonly not tested for (e.g. IBRV). Preliminary results suggest discrepancies between laboratory results (tested positive sera) and farmer's perceptions on specific diseases. While for East Coast Fever farmer's perception on disease importance confirmed laboratory results (37% versus 32%) we found a discrepancy for brucellosis (1% versus 11%), a neglected zoonoses with the potential of causing chronic, long lasting diseases in humans. Implications of farming management practices on the presence/absence of certain pathogens are currently developed and part of ongoing dissemination efforts.

**Keywords:** Cattle, farmer's perception, pathogens, Tanzania