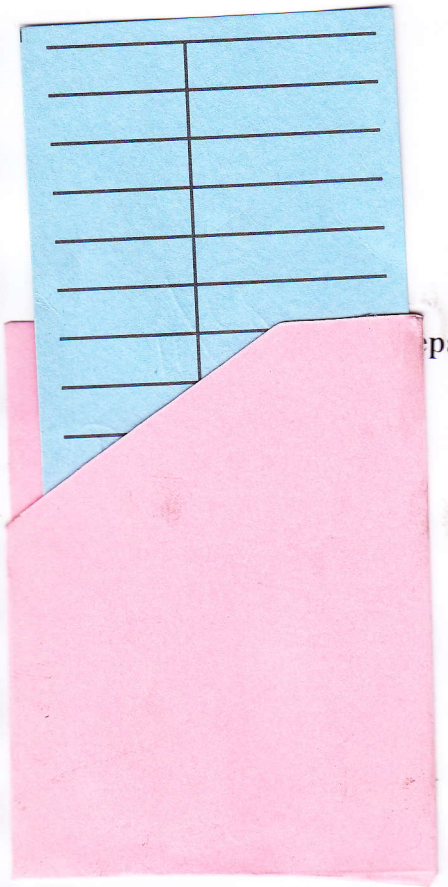
EVALUATION OF LATEX AGGLUTINAOIN TEST FOR DETECTING SPECIFIC ANTIBODIES OF CONTAGIOUS CAPRINE PLEUROPNEUMONIA



BY

JOB OCHIENG OWAK

College No. 106P07944

epartment of Health Sciences and Biotechnology

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ABSTRACT

The diagnosis of contagious caprine pleuropneumonia (CCPP) caused by *Mycoplasma capricolum* subspecies *capripneumoniae* relies on the isolation and identification of the organism as well as a sensitive detection tests. Various serological tests including Complement Fixation Test (CFT) and Indirect Enzyme-Linked Immunosorbent Assay (I-ELISA) and molecular techniques such as Polymerase chain reaction (PCR) have been used in its diagnosis. However, other than their high costs, these tests require special equipment and highly trained personnel. This study was therefore designed to evaluate a latex agglutination test (LAT) using a unique and specific capsular polysaccharide antigen to *Mycoplasma capricolum* subspecies *capripneumoniae* in order to improve the diagnosis of CCPP. LAT is simple, rapid test and can be performed both in the field and in the laboratory. The F38 supernatant culture of Mycoplasma was obtained from KARI Veterinary vaccine production unit. The polysaccharides were extracted from the supernatants and used for sensitizing latex beads. The CCPP specific polysaccharide sensitized beads were used for the detection of homologous antibodies in undiluted goat sera. The LAT was evaluated using 129 sera from CCPP suspected goats from farms in Rift Valley province namely Baringo Koibatek and Marigat. Positive and negative results were observed following the reaction of the sensitized polysaccharide and the undiluted sera. Out of 129, 23 animals turned out to be positive and106 were negative. In a nutshell, although the sensitivity of the developed LAT needs to be improved, its simplicity and rapidness and diagnostic specificity, objectivity and its capacity to be adapted to test a number of sera in short periods of time are the advantages. LAT if adopted can facilitate the epidemiological study of CCPP.