

Comparison of Rose Bengal Plate Agglutination, Standard tube agglutination and Indirect ELISA tests for detection of Brucella antibodies in Cows and Buffaloes

S. N. Ghodasara, Ashish Roy and B.B. Bhanderi*

Department of Veterinary Microbiology
College of Veterinary Science and Animal Husbandry
Anand Agricultural University, Anand-388 001 (Gujarat)

*Corresponding author e-mail: bbbhanderi@yahoo.co.in, Mobile No: +91 96620 55459

Abstract

A total of 180 serum samples (107 cows, 73 buffaloes) from cases of abortion and various reproductive disorders were collected for detection of Brucella antibody by Rose Bengal Plate Agglutination Test (RBPT), Serum Tube Agglutination Test (STAT) and indirect-ELISA (i-ELISA). The overall prevalence of brucellosis by RBPT, STAT and i-ELISA were 11.21%, 16.00% and 24.30% in cows 9.59%, 12.33% and 26.03% in buffaloes respectively. Overall seroprevalence of Brucellosis in cases of abortion, R.O.P. by RBPT, STAT and i-ELISA were 11.32%, 16.04% and 32.08% respectively. When three serological tests were compared, seropositivity was found highest by i-ELISA (25%), followed by STAT (14.45%) and RBPT (10.56%). The results shows higher prevalence of brucellosis in cases of abortion and R.O.P., while at lower level from various reproductive disorders as detected serologically indicating endemicity of the infection in villages around Anand city, Gujarat.

Keywords: Brucella, Gynaecological disorders, Cows, Buffaloes.