ABSTRACT

Haemorrhagic Septicaemia is one of the most common, fatal and acute bacterial diseases of livestock which causes mortality above 70% and is caused by *Pasteurella multocida*. The only satisfactory and practical method of control and prevention is by carrying out timely vaccination of all the healthy and in contact animals. Different types of vaccines are being used for the immunity against this disease. In this project by using different adjuvants three oil based vaccines were produced. Two single emulsion vaccines were prepared by utilizing Montanide ISA-50 and liquid paraffin with lanolin where as one double emulsion was prepared with the help of Montanide ISA-206. Single emulsion was water in oil (w/o) where as double emulsion was w/o/w. After preparation of vaccines in house quality control testing and safety testing was performed on swiss albino mice. For immune titre the vaccines were injected in 100 no. of cattle and buffaloes calves and adults both in a dose of 2 c.c intramuscularly in primary and booster. Serum was collected from each and every animal including control animals and IHA was carried out quarterly after booster dosing. The comparison of IHA was done via statistical analysis by using GMT, ANOVA. Multiple range test was done by using least significant difference test and Bonferoni test. From all the data collected by statistical analysis it was revealed that single emulsion vaccine prepared from liquid paraffin with lanolin and Montanide ISA-50 gave maximum immune titre out of all the three vaccines while Montanide ISA-206 gave best results in calves.

Key words: Haemorrhagic Septicaemia (HS), immune titre, IHA, vaccine, animal, Montanide ISA-206, Montanide ISA-50, liquid paraffin, lanolin, cattle, buffalo, mice, adjuvant.