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Comparison and immunogenic evaluation of thermostable NDV I-2 and LaSota vaccines against Newcastle disease virus in Pakistan

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The current trial was conducted to assess the efficacy of thermostable vaccinal strain I-2 in field conditions of district Faisalabad, Punjab, Pakistan. For this purpose, five different poultry farms were randomly selected and day-old chicks were targeted and vaccinated through drinking water method. After administration of vaccine, three hundred and sixty blood samples were collected. The antibody titer was examined through indirect haemagglutination test (HI) and Enzyme linked immunosorbant assay (ELISA). Optimum average mean HI (Log2) and ELISA mean antibody titers was achieved at day 14 i.e., 7.324 and 6684, respectively, as compared with commercially available LaSota ND vaccine corresponding to 4.25 and 3850, respectively. Thermostable I-2 Newcastle disease strains were found to be more protective, safer and immunogenic and have produced significantly protective humoral immune response in broilers against Newcastle disease, whereas in comparison to this, currently available LaSota ND vaccine produced poor antibody response. In conclusion, thermostable I-2 ND strain should be the preferable and clean choice for the farmers in developing countries like Pakistan in the future as intermittent electric supply due to the electric load shedding and high ambient temperatures are major hurdles in operating poultry industries.

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