FIELD ISOLATES OF BOVINE VIRAL DIARRHEA VIRUS ARE WELL CONSERVED

M. Becker, L.J. Braun and C.C.L. Chase
Department of Veterinary Sciences
South Dakota State University
Brookings, SD 57007

ABSTRACT

Both type 1 and type 2 bovine viral diarrhea virus (BVDV) infections cause major problems in the US cattle industry. All of the vaccines contain type 1 BVDV and more vaccines are contain both type 2 BVDV. We collected 15 type 2 BVDV field isolates and sequenced five different regions, 5’UTR, E0, E2, NS2-NS3 and NS3. We sequenced about 15% of the total viral genome of each isolate. The 15 field isolates from different regions of South Dakota had 90-95% similarity in all five regions. However all the isolates varied greatly from vaccine strains including the predominant type 2 vaccine strain. This variation between the field strains and vaccine strains may explain the poor protection seen in the field with commercial BVDV vaccines.