

Update: VS Vaccine

During the VS outbreak of 1995 an autogenous vaccine became available for use in dairy cattle. The vaccine was made by isolating the specific virus from an animal sick during this outbreak, grown in large quantities, and inactivated by formalin and/or heat. Autogenous vaccines are required to be tested for safety to ensure no harm when administered, but are not required to be tested for effectiveness in protecting animals from disease.

Three dairies in Colorado were enlisted to participate in a study to evaluate the usefulness of this vaccine. A random sample of animals of all production classes were sampled on each dairy prior to use of the vaccine and then again several times over the period of the outbreak. Serum from each tested animal was analysed for the presence of VS antibodies.

There were no reports of adverse reactions following use of the vaccine in dairy cattle. All animals tested for VS prior to the vaccination were negative. Figure 1 indicates the geometric mean titer for each group of animals on each dairy over the period of the study and indicate that the vaccine generated an immune response. Because there was no indication that VS infection existed on any of the study dairies, no conclusions about the level of protection afforded by the vaccine can be made. Efficacy studies which involve exposure of the vaccinated cows to the disease agent are necessary prior to further specific recommendations about the vaccination.

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