Leptospires were detected in the placenta or fetal tissues of 5/8 control cattle, whereas leptospires were not detected in any of the placenta or fetal tissues of the 16 Spirovac-vaccinated heifers. Seven seronegative calves from unvaccinated cows were used as a control group. All calves were challenged at 30–32 weeks of age per intraperitoneal route. Microscopic agglutination titers (MAT) prevaccination ranged from 1:10 to 1:100 in all calves, and reaction associated with 35 S or 48 S antigen was absent in all calves. Five of six vaccinated cows had MAT titers of 1:100 or greater at 14 weeks postvaccination by intraperitoneal injection of either serovar hardjo (type hardjo-bovis A) or type hardjo-bovis B (strain 197). Serological titer rise in vaccinated heifers was observed 21 days postsecond vaccination with Spirovac. In a study conducted by researchers at the University of Massachusetts, NADC, and Michigan State University, Spirovac was demonstrated to induce a strong, sustained cell-mediated immune response against Leptospira hardjo-bovis 033. Spirovac was shown to protect 100 percent of the vaccinated cows against colonization of the urinary and reproductive tracts when administered according to label recommendations. The need for annual booster vaccinations has not been established for this product; consultation with a veterinarian or the manufacturer is recommended.

REFERENCES:


The safety of Spirovac was demonstrated in field studies representative of the normal dose volume at three different injection sites. The cows were revaccinated in the third trimester. No systemic reactions or significant injection site reactions were observed in vaccinated animals.

Duration-of-immunity study:

Sixteen parasitized seronegative cows were divided into 2 groups. Nine cows were vaccinated twice with Spirovac according to label recommendations at least 21 days before and 21 days before calving. A cell-mediated immune response is associated with protection against leptospirosis. Spirovac was shown to protect 95 percent of the vaccinated cows against colonization of the urinary and reproductive tracts when administered according to label recommendations.

The safety of Spirovac against placental and fetal infections was established in a study conducted by researchers at the National Animal Disease Center (NADC) of the Agriculture Research Service (ARS), USDA, Ames, IA, conducted a separate study evaluating the efficacy of Spirovac against the colonization of the urinary and reproductive tracts of cattle when challenged with a virulent serovar hardjo mixed strains 203 and 197 by conjunctival and vaginal instillation. Heifers were monitored for urinary shedding until calving.

Leptospires were detected in the placenta or fetal tissues of 5/8 control cattle, whereas leptospires were not detected in any of the placenta or fetal tissues of the 16 Spirovac-vaccinated heifers. Spirovac was shown to protect 100 percent of the vaccinated cattle from colonization of the urinary and reproductive tracts when administered according to label recommendations. The need for annual booster vaccinations has not been established for this product; consultation with a veterinarian or the manufacturer is recommended.

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DIRECTIONS:

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