

عنوان مقاله:

The Control Program of Brucellosis by the Iranian Veterinary Organization in Industrial Dairy Cattle Farms

محل انتشار:

مجله آرشیو رازی، دوره 78، شماره 3 (سال: 1402)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Brucellosis is a zoonotic infection in livestock that induces a major public health concern in developing countries, including Iran. Despite the efforts of the Iranian veterinary organization (IVO) to control brucellosis, it is still prevalent in domestic animals. In this regard, the present study aimed to evaluate the efficiency of the control strategy used by the IVO in infected herds on serological, cultural, and molecular methods. For this purpose, blood specimens were sampled from a total of ۸۷۵۰ vaccinated dairy cattle in two Brucella-infected farms. These farms were recognized as positive for Brucella by a screening program. Sera were evaluated by the Rose Bengal Plate Test and Wright test analysis. Positive dairy cattle were slaughtered under IVO supervision. The remaining cattle were evaluated every ۳ weeks and positive animals were slaughtered. This procedure continued until the remaining animals revealed three successive negative responses in serological tests. Several lymph nodes and milk samples were collected from ۱۶۴ seropositive cattle and subjected to bacterial isolation and confirmation by Bruceladder-polymerase chain reaction. Brucella melitensis biovar ۱ and RB۵۱ vaccine strains were recovered from milk and lymph node samples, respectively. Shedding of B. melitensis in the milk of vaccinated cows is a serious problem resulting in the further spread of brucellosis. The policy of "test and slaughter" performed on infected dairy cattle farms showed their usefulness for the control of brucellosis outbreaks. For the uncontrolled spread of brucellosis in Iran, effective control of bovine brucellosis required several serological surveillances to identify infected herds, eradication of the reservoirs, and vaccination of young heifers with RB۵۱.

کلمات کلیدی:

Brucella melitensis, Brucellosis, Dairy cattle, RB۵۱ vaccine

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