

SURVEILLANCE OF BOVINE TUBERCULOSIS IN SICILY

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BACKGROUND

Bovine Tuberculosis (bTB) by *M. bovis* is a chronic infectious disease of cattle that can represent a risk to human health. bTB European Eradication Plans are based on tuberculin testing and slaughtering of reactive subjects (1, 2, 3). Despite control measures have been applied in Italy since 1964, illness is still present in Sicily. On 2012, regional official data reported an herd infection prevalence of 3.09% and an herd incidence of 2.37%. In the same year, head prevalence was of 0.70%. This study has analyzed the results of the control activity performed on cattle farm in Sicily between 2009-2012, with the aim to evaluate the bTB prevalence and incidence.

METHODS & MATERIALS

The processed data are the results of the official testes carried out by the Veterinary Services of Sicily during the reference years (2009-2012). Population was the number of cattle farms insistent in each of the nine province of Sicily and the number of animals in each province. In the scope of this population were considered, for each year, the "cases", ie all farms and animals tested positive for tuberculosis (prevalence) and the "new cases", ie the new positive herds (incidence).

Figure 1. Herd prevalence – Year 2012

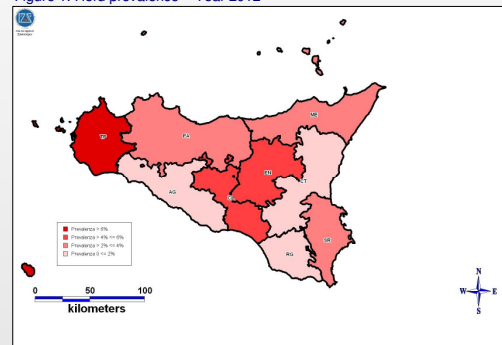


Figure 2. Herd incidence – Year 2012

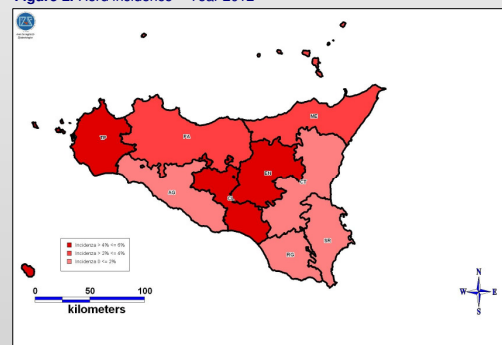
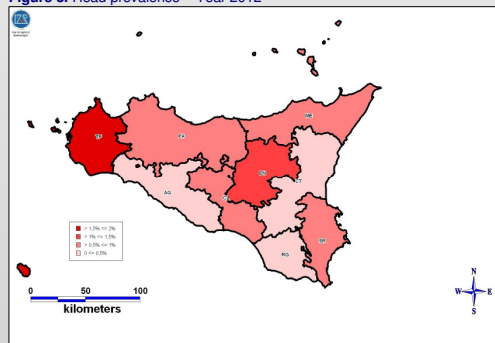


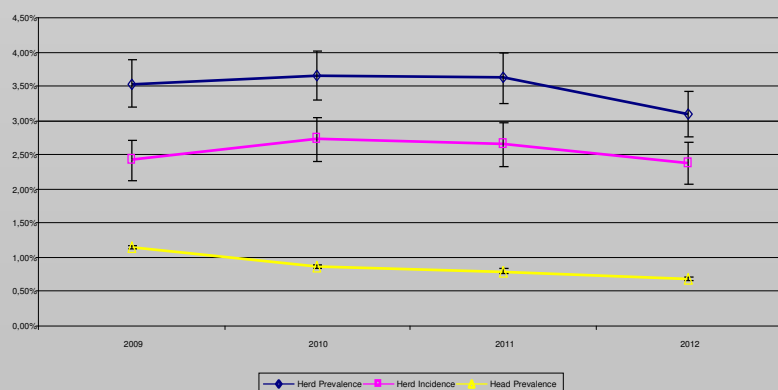
Figure 3. Head prevalence – Year 2012



RESULTS

During 2009-2012, the prevalence of bTB infection in the herds of the Sicilian territory has remained around an average value of 3.47%. A decrease was registered in 2012 (3.09%) and a peak in 2011 (3.65%). Herds incidence amounted around an average value of 2.55%, with a decrease of 2.37% in 2012 and a peak of 2.73% in 2010. Head prevalence has showed a decreasing trend during the study period, going from 1.15% in 2009 to 0.70% in 2012. Figures 1, 2 and 3 show the data relating to 2012.

Figure 4. 2009-2012 Tuberculosis Prevalence and Incidence



CONCLUSION

The results (Fig. 4) show that both the bTB prevalence and incidence of herds that the head prevalence has remained almost unchanged from 2009 to 2011. A slight drop was registered in 2012. The study confirmed that bTB is present in cattle in Sicily and the risk of the transmission of the disease to humans is possible. It is appropriate to make further investigations for identifying the risk factors that influence the persistence of infection in Sicily. Collaboration between the veterinary and the medical sectors could be encouraged.

References

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