

Bluetongue: Proceedings of the Third International Symposium, 26–29 October 2003

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This attractively presented 2-volume, 730 page special edition of an Italian veterinary journal, has made a timely arrival on the bluetongue scientific scene. *Veterinaria Italiana* Vol. 40 presents 123 papers compiled from the oral presentations of invited speakers and an impressive collection of poster presentations. These form the *Proceedings of the Third International Bluetongue Symposium* which took place at Taormina on 26–29 October 2003. The Symposium was jointly hosted by the OIE and the Italian authorities in a year in which Italy held the EU Presidency. It was ironic but appropriate that the venue was an island in the Mediterranean Sea given the fact that bluetongue had spread across large areas of North Africa and the Mediterranean countries of France, Spain, Italy, the Balkan states and Greece since 1998.

The *Proceedings* are divided into a number of topics which address the Global Situation; Epidemiology and Vectors; Bluetongue virus and Disease; Diagnostics, Vaccines; Control and Trade, and in summary, Conclusions of the working groups. This meeting was overdue following on the First and Second Symposia held in 1984 and 1991 in California and Paris, respectively, where bluetongue and related Orbiviruses (like horsesickness and EHD) were discussed. The Third Symposium was devoted to bluetongue and showcased the latest scientific views on the subject.

The European outbreak of bluetongue prompted much research when it was realized that the disease unlike past incursions, was now becoming unwelcome and endemic in certain areas. Furthermore, global warming and climate change had caused the northern limit of the vector, which was always set at latitude 40 °N, to now move to 50 °N. Also, while a large body of work on certain aspects of bluetongue had been published, control was still dependent on the use of an attenuated live virus vaccine which, in the eyes of the EU, was associated with certain risks like reversion to virulence.

This collection of papers addresses a major livestock disease from different perspectives and focuses on aspects of disease, epidemiology control, vectors and trade issues. The South African contribution was a summary of molecular, vector and sheep work done over a 3-year collaborative EU project period. We were represented in 4 of the 6 working groups where there was justifiably a large Italian presence. This was a measure of much work done in that country after BTV 4, 9 and 16 arrived from the east and BTV 2 from the southwest to spread across Italy from Sicily to north of Rome.

Predictably the section on epidemiology and vectors contained

the majority of papers and presentations. It was recognised that the establishment of BT in Europe was dependent on competent vectors. *Culicoides* vector population movements had to be understood and monitored. Vector simulation models are a final goal as models based solely on climate variables are not always sufficiently accurate. Vector control methods to suppress adult or immature populations need to be developed as do methods to interrupt transmission cycles. Basics like breeding site identification and local or long-distance dispersal of adults are all factors of lesser importance in South Africa which is endemically infected but of crucial importance to the many contiguous EU countries.

Whereas indigenous sheep breeds in South Africa and the 'acclimatized Africanized merino' are not adversely affected by currently used vaccine strains, this is not the case in Europe. Using single vaccine strains as a monovalent or bivalent product out of their bottle formulation evoke reactions in naive European breeds like their Dorset Poll sheep, a subject discussed in a recent publication. There is therefore much effort to produce inactivated and alternative vaccines not least because blanket vaccination of all ruminants in the source population is being advocated in Italy to allow ruminant movement to take place. The focus, however, is shifting from the importance of cattle as maintenance and possible overwintering hosts to interest in investigating trans-ovarial BT virus transmission or persistence of down-regulated virus in vector larvae.

The Monitoring and Surveillance working group identified research needs which South Africa could take on board and apply to envisaged horsesickness work. These included the need for DIVA tests a perennial issue on the 'wish lists' of everyone involved in control and trade. Also mentioned were a better understanding of vector inter-relationships and improved type specific serology and genetic and antigenic analysis of viruses.

Future research work could have spin-offs for South Africa, particularly in the field of vector control with possible chemical pour-on's for ruminants (useful in horsesickness control) and DIVA tests to differentiate infected and vaccinated animals (useful in BT and other trade issues).

Finally the Symposium not only highlighted what has already been achieved, it also underlined future research opportunities for our scientists to collaborate with Europe but also to independently advance the South African cause.

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