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Bluetongue trade issues – an Australian perspective

G.R. Oliver

Department of Agriculture, Fisheries and Forestry, GPO Box 858, Canberra, ACT 2601, Australia

Summary

Although bluetongue (BT) causes large numbers of sheep mortalities in some parts of the world, the main economic global impact is due to restricted trade. Australia supports a risk-based approach using current scientific knowledge to determine animal health requirements for international trade. It is important that import health conditions for bluetongue virus (BTV) are based on science and are consistent with international guidelines. The Sanitary and Phytosanitary (SPS) Agreement of the World Trade Organization (WTO) specifies basic rights and obligations of importing and exporting member countries. The *Terrestrial animal health code* of the Office International des Épizooties (OIE) provides specific guidelines for BTV and general guidelines for many trade-related matters, including surveillance and zoning. The combined effect of relevant WTO-related measures and the OIE guidelines is to both encourage and require countries to apply import health requirements that are based on sound science and which afford justifiable protection without being unnecessarily trade restrictive.

Keywords

Australia – Bluetongue virus – Import – Office International des Épizooties – Quarantine– Surveillance – Terrestrial animal health code – Trade – Zoning.

Australia has developed excellent bluetongue (BT) virus (BTV) surveillance systems and expertise over the past two decades. The objective of this work is to provide early warning of any change in the national BTV situation, to provide expert advice to producers and exporters and to support trade. Australia is a net exporter of agricultural products and very large numbers of sheep and cattle are exported from Australia each year.

BT disease is very rare in Australia because only a few hundred sheep of the national flock of 100 million graze in areas where pathogenic BTV serotypes are present. Australia has monitored the distribution of BTVs since they were first identified in Australia in 1977. Consequently, the distribution and epidemiology of the viruses and vectors in Australia is well understood. The ongoing surveillance programme, in combination with ad hoc research, continues to provide the scientific support for the export of ruminants to BTV-sensitive markets.

Although under certain circumstances BT causes large numbers of sheep mortalities in some parts of the world, the main economic global impact is due to trade restriction. Trade in sheep, cattle and goats is often prevented, or made very expensive, because of test and/or other requirements used to manage perceived BTV risk.

New trade guidelines and rules

Since the most recent BT Symposium in Paris in June 1991, there have been two major developments that influence the effect of BTVs on trade: the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the revision of the Office International des Épizooties (OIE) guidelines on BT. These outline certain rights and obligations for WTO member countries when implementing trade restrictive measures, and provide scientifically based guidance on managing BT risks in international trade.

World Trade Organization developments

The SPS Agreement elaborates rules for the application of SPS measures with respect to the provisions of the General Agreement on Tariffs and Trade (1). The SPS Agreement states that although members have the right to take quarantine measures necessary for the protection of animal, human and plant health, these measures should be consistent

with the provisions of the Agreement and should not constitute a disguised restriction on trade. It specifies basic rights and obligations of both importing and exporting countries that are members of the WTO, through the use of such concepts as harmonisation, equivalence, appropriate levels of protection, and the use of relevant international guidelines in international trade. Article 6 of the Agreement includes special reference to 'disease free areas'.

The SPS Agreement recognises the OIE as the body responsible for establishing animal health guidelines and standards for international trade in animals and animal products. By expecting member countries to comply with relevant international guidelines, the SPS Agreement links the OIE *Terrestrial animal health code* (*Code*) (2) with the rights and obligations of members under the WTO.

Revised bluetongue chapter of the *Terrestrial animal health code*

On the request of the OIE Code Commission, an OIE ad hoc group examined current scientific information on BT, including the infective period in susceptible animals, the geographical distribution of BTVs, the competence of *Culicoides* spp. as vectors, the possibility of recognising seasonally free periods and the effectiveness of various methods of surveillance and monitoring.

The OIE international committee adopted the latest revised chapter at the 70th General Session of the OIE in May 2002. The recommendations in this chapter are based on current scientific opinion and, if applied, facilitate trade in ruminants and genetic material with negligible risk. The revised chapter includes the following:

a) guidance on acceptable surveillance programmes necessary to establish a BTV-free country or zone
b) recognition that BTVs occur in a broad geographic belt around the planet from 40°N to 35°S (countries or zones located outside this belt, but adjacent to areas that do not have free status, need similar surveillance to demonstrate freedom; ongoing surveillance is required to demonstrate continuing freedom; the corollary to this is that unless a country has a suitable BTV surveillance programme, or are separated from the global 'BT belt' by a zone that does, then that country cannot claim freedom from BTV)
c) a requirement that free areas that adjoin infected ones should include a clearly defined surveillance zone (with continuous surveillance).
d) recognition of, and guidance for establishing, seasonally free zones
e) recognition that animals do not present any risk of transmitting BTV providing they have been held in a free zone for a defined period prior to export, regardless of antibody status
f) recognition of the concept of protecting animals from vector attack during transportation to the place of shipment.

Other relevant revisions to the *Code*

Chapters on zoning and regionalisation (chapter 1.3.5.) and surveillance and monitoring (chapter 1.3.6.) have been added to the *Code* (the latter is currently under review). These chapters provide further guidance relevant to the establishment of BTV-free zones. They emphasise that the size, location and delineation of a zone will depend on the epidemiology of the disease in question, environmental factors and surveillance measures used.

It is clear that there are differences in the epidemiology of BTV in various regions of the world. There are different vectors with varying ecological needs and characteristics. There are also differences in the species and breed of ruminants, and husbandry practices. Housing animals during the winter may enable vectors to cycle BTV over the winter months. Some regions are geographically uniform, with gradual changes in climate and ecosystems, and others variegated, with opportunity for isolated pockets of vectors to survive. The possibility of re-assortment of laboratory-adapted genes derived from live vaccines needs to be considered – resultant viruses might behave differently in vectors, have longer viraemic periods and other variant characteristics.

An Australian viewpoint

There is a growing suite of international guidelines that relate to trade between countries. As a major exporter of agricultural products, Australia welcomes the introduction and development of these tools to assist in the conduct of safe and fair trade. Australia will continue to actively contribute to the development of international guidelines and encourage the adoption of current scientific information, knowledge and methods.

Australia supports a risked-based approach using current science to determine health requirements for international trade. Australia complies with the international guidelines and rules in national BTV requirements for the import of ruminants and ruminant genetics, and advocates their use for export from Australia. Surveillance and research on BTV and its vectors have been conducted in Australia for

many years, providing scientific support for the export of ruminants and their genetic material from Australia, and has assisted in our contributions to the development of scientifically based international standards for BTV. Australian authorities have determined a BTV-free zone based on surveillance information, knowledge of the epidemiology of BTV and its vectors in Australia, and relevant international guidelines.

The BTV situation in Australia appears relatively stable. No new BTV serotypes have been identified since 1985. Research continues on such matters as the behaviour of vectors in Australia, *Culicoides* repellents, the development of improved insect traps and diagnostic tests, infective periods, genetic sequencing, and modelling the distribution of BTVs in Australia. The well developed arbovirus monitoring systems in Australia provide temporal and spatial information on the distribution of BTVs and their vectors in the country and serve as an early warning mechanism for the possible introduction of new BTVs or vectors.

The emergency disease response arrangements made in Australia (1) include detailed plans for BT. These are documented at the Animal Health Australia website (aahc.com.au/ausvetplan). Vaccination (with live-attenuated virus) is not included as a management option in the face of an outbreak. This is due to concerns relating to possible genetic re-assortment of vaccinal strains with wild strains (which could introduce undesirable characteristics into circulating BTVs), and the logistics of rapidly procuring sufficient serotype-specific vaccine that satisfies national import health requirements and other regulatory controls for vaccines for farm animals.

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