Treatment of meat and milk from vaccinated herds/animals which test negative by NSP test; a risk analysis

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At the 2002 session of the research group Dr. Donaldson noted that in 2001 there was disparity between the export restrictions faced by the FMD affected countries in the EU compared to those in South America. Dr. Donaldson had reviewed "The minimum requirements for importation into Europe of live animals, fresh meat and offal of the bovine species". Dr. Donaldson rightly suggest that EU and OIE regulations for trade should be identical and therefore if special rules are considered necessary for the trade of de-boned beef or other meat products, these should be recommended to the OIE for their consideration. Dr. Have had commented on the survival of FMD after heat treatment and rightly states that kinetic data (rate of inactivation) in almost all papers on FMD survival in meat is missing (McKercher et al. 1980, Blackwell 1984, Mebus et al. 1997). Producing FMD inactivation curves of meat or meat products is difficult. Determining the inactivation rate of FMD in milk is possible (de Leeuw et al. 1980), but most others only looked at the result at the endpoint (Hyde et al. 1975, Cunliffe et al. 1977, Cunliffe et al. 1978, Cunliffe et al. 1979, Walker et al. 1984). Dr. Have presented information that the rate of inactivation of viruses in meat increases approximately 5 times if the temperature is increased with 10 degrees Celsius. This is a higher increase in reaction rate than normally observed for biological reactions. Others have shown that the inactivation rate of FMD depends on the substances added to the virus suspension and virus can be stabilised by drying (Ferris et al. 1990, Dekker 1998). As Dr. Have stated there is certainly need for more data of FMD inactivation by heat in meat and milk of infected animals. The question remains at which reduction of FMD virus titre one should aim.

The Sanitary and Phytosanitary (SPS) agreement of the World Trade Organisation states that the risk should be reduced to an acceptable level of risk, no unnecessary trade barriers should be realised. Even more important the SPS agreement mentions the "equivalence principle", which means that different means of risk reduction can be exchanged. This last principle is very important, because would titres of $10^6$ be expected in vaccinated animals? If not, do we need 6 log reduction?

Different parts of this issue will be discussed during the meeting.

References


