

Sir,

In the Sunday Times of the 5th of August, Sir Brian Follett (who chaired the Royal Society inquiry into livestock diseases that followed the 2001 FMD outbreak) states on page 3 that "A vaccinated animal is protected against developing symptoms but may be a carrier - so such animals cannot be moved".

Sir Brian Follett is wrong when he suggests that vaccinated animals constitute a danger, because they may be carrying FMD virus. Unfortunately, in spite of all the evidence to the contrary, the idea that FMD carriers represent a considerable risk of transmission of the disease appears to be persistent and remains up to the present the basis for current rules and regulations for international trade in animals and animal product. In addition, because of the trade consequences, the fact that a vaccinated animal can also become a carrier has practically banned the use of vaccines when appropriate in outbreak situations.

Many European countries got rid of FMD in the fifties and sixties of the 20th Century thanks to annual vaccination of their cattle.

They were forced to stop this annual vaccination in 1991 because Ireland, Denmark and the UK wanted them to.

For ten years Europe did all right. And then, 2001 came with at least € 12 billion damage to farming and the rural economies of the UK, Ireland, France and the Netherlands.

Sir Follett is also wrong when he states that vaccinated animals cannot be moved. The EU directive 2003/85/EC allows movement of vaccinated animals within national borders after six months after an outbreak of FMD.

What are the scientific facts?

Vaccination by itself does not cause the carrier state. A vaccinated animal must be exposed to FMD virus to become a carrier. No evidence of outbreaks caused by vaccinated carriers has ever been observed nor have they hampered FMD eradication efforts anywhere in the world. The outbreaks that happened because of animal-to-animal contact were always caused by animals with active infection, originating from endemic or sporadically infected areas or from active foci.

Sheep are of particular importance because of their involvement in the 2001 UK FMD episode. However, the absence of virus transmission by carriers among sheep and goats is well documented. Recovered small ruminants have not acted as a source of infection to initiate new cases of FMD, neither under natural conditions anywhere in the world nor under experimental conditions. Carrier goats never have shown to infect susceptible livestock.

If FMD vaccine is used to control and eradicate an outbreak there are tests to discriminate between carriers and vaccinated animals. These tests have been widely used and the results are, in general, internationally accepted. In addition, vaccines prepared from purified antigens as present in the international vaccine banks, will not induce antibody to non-specific proteins (NSP) that interfere with the interpretation of the serological surveys. Thus, if an FMD outbreak is controlled by vaccination, testing for antibodies against non-structural proteins amongst vaccinated livestock could determine if a vaccinated herd would contain FMD carriers. The hypothetical risk of vaccinated carriers can be further reduced by a serological survey for anti-virus antibodies in animals in the non-vaccinated surveillance zone around the vaccination zone. Those results, together with the results of the a-NSP test, would verify the FMD-free status of the area.

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