

Global Control Strategies of Foot-and-Mouth Disease for Sustainable Dairying

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Several regional and international forums such as ASEAN, SAARC and BIMSTEC have been formed for the welfare of mankind. However, no forum has been formed for the development and welfare of livestock. Among all the livestock, cattle especially dairy cattle are playing the most vital role for securing our nutrition (providing milk and meat). Large number of world populations is living in Asia. It is also predicted that most demands of a population could be met from improved production of livestock through small, medium and large farming systems. However, diseases are one of the major constraints for the development of livestock sector in many countries. Of all the infectious diseases, foot and mouth disease (FMD) is the most threatening trans-boundary disease to animal health, seriously affecting economic and nutritional status of the population of the region.

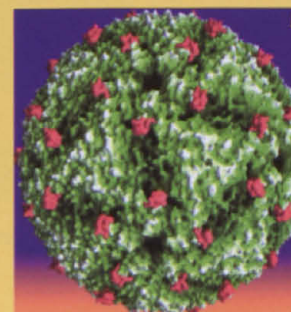
FMD is caused by foot-and-mouth disease virus (FMDV), a single stranded, positive sense RNA virus belongs to the family Picorna viridae. This virus have seven types (O, A, C, Asia-1, SAT1, SAT2



and SaT3) and more than 65 subtypes. Most of the cloven hoofed animals (domestic and wild) are susceptible to FMD virus infection.

The disease severely affects the productivity of dairy cattle (by abortion, infertility, newborn calf mortality) and has recently emerged as one of the factors leading to economic losses. The disease drastically reduces milk production and impoverishes poor farmers' diet. FMD, not only inhibits the international trade of animals and animal products, but also have a potential major negative impact on ensuring global food security and alleviation of poverty. Therefore, most of the livestock producing countries of the world needs special attention for the immediate control of the disease, otherwise government's adopting policy for the development of dairy and meat production sectors will certainly be hampered. The disease FMD, is so devastating that every year more than 250 million US \$ economic losses are encored globally only by it.

We have discussed about the role of FMD for sustainable dairying in Asia and other countries of the world, for that certain measures need to be adopted such as strengthening of disease surveillance and epidemiological networking, setting up of well equipped laboratory for the identification of viruses, development of type specific FMD vaccines, effective vaccination schedule, post vaccination sero-survey, establishment of in country buffer zone by animal movement control and contingency plan for the effective control of FMD in the region.



FMD virus affects various tissues in dairy cattle; photographs showing lesions in mouth, gum, tongue, hoof and teats