



Capacity Building Series

On

“Foot & Mouth Disease Elimination with Vaccination”

Target audience:

District Level and above officials of all Animal Husbandry Departments
(Directors/ Additional Directors/Deputy Directors/DAHOs/CVOs, LHDCP/NADCP
Nodal officers, State level officers responsible for Animal Disease Control)

Date: 11 September, 2024, Time: 10.00 AM, Venue: Online mode

You are invited to a Zoom meeting.
When: Sep 11, 2024 10:00 AM India

Register in advance by clicking below link for this meeting:

<https://us06web.zoom.us/meeting/register/tZMpcO2gqDIsEtJJypFjQCHsUAOqaHteo4o->

After registering, you will receive a confirmation email containing information about joining the meeting.



Organized by
By

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(पूर्व भा.कृ.अनु.प.-खुरपका मुँहपका रोग निदेशालय)
ICAR- National Institute on Foot and Mouth Disease
(Formerly ICAR-Directorate of Foot and Mouth Disease)



(FAO Reference Center for FMD)

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International Centre for Foot and Mouth Disease

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Concept Note

Foot & Mouth Disease Elimination with Vaccination

Target audience:

State Level and District Level officials of all Animal Husbandry Departments

(Directors/ Additional Directors/Deputy Directors/DAHOS/CVOs, LHDCP/NADCP Nodal Officers, State level officers responsible for Animal Disease Control)

Foot and Mouth Disease (FMD) is the most significant animal disease in India in terms of economic losses and the trade involved. It affects livestock productivity, impacting farmers' livelihoods and the broader agrarian economy. India is affected by three FMD virus serotypes: O, A, and Asia1. Serotype C has not been reported in India since 1995. South African serotypes (SAT-1,2,3) have never been reported in India. India has been actively working to control FMD since 2004, with 100% financial support from Government of India, now. The programme has progressively expanded in terms of regional coverage, ensuring a more comprehensive approach to disease control. The National Animal Disease Control Programme (NADCP) was launched in 2019 by the Hon'ble Prime Minister which included FMD and Brucellosis. This initiative marks a significant commitment by the Indian government to control and eventually eliminate FMD from the country. Subsequently the programme was named as Livestock Health and Disease Control Programme (LHDCP), which also included PPR and classical swine fever as well.

The Department of Animal Husbandry and Dairying (DAHD) has been implementing the FMD control programme with technical support from ICAR institutes, primarily the ICAR-National Institute on Foot & Mouth Disease (ICAR-NIFMD), Bhubaneswar, which is dedicated solely to FMD research and development and knowledge-based services with a Vision statement for "FMD Free Country". Effective vaccination and comprehensive vaccination coverage have led to a reduction in disease incidences in many parts of the country. Even in outbreak scenarios, the severity of the disease has decreased significantly. Effective (vaccination with complete cold chain) and timely vaccination, good vaccination coverage (95% or more), prompt disease reporting, seromonitoring (vaccine effectiveness after vaccination), and serosurveillance (indicator of infection) are important technical elements that aid in FMD control. There are 32 FMD network laboratories across the country working under the guidance/technology and knowledge support of ICAR-NIFMD, that carry out outbreak investigation, FMD diagnosis, seromonitoring, and serosurveillance. The samples for seromonitoring and serosurveillance are collected by state animal husbandry departments and sent to the network laboratories for testing including ICAR-NIFMD. The results are compiled and communicated to DAHD by ICAR-NIFMD.

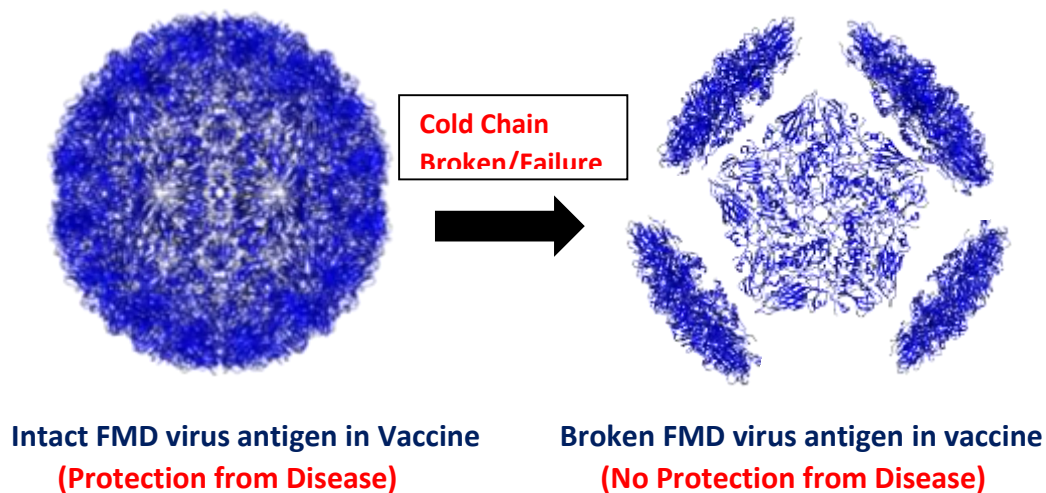
In terms of implementing the control program, FMD vaccines are supplied to state AH departments in a centralized manner by DAHD through outsourced agency. Only quality-approved vaccines, tested by three central laboratories (ICAR-NIFMD, ICAR-IVRI, Bengaluru, CCS-NIAH Baghpat), are supplied to the states. FMD vaccination needs to be carried out biannually (every 6 months interval), cold chain maintenance and vaccination coverage have a major impact on FMD vaccine effectiveness in the field. The vaccine's effectiveness can be assessed directly by observing the declining trend of FMD outbreaks and reduced severity in case of any outbreak. Indirectly, it can be assessed by FMD seromonitoring, which indicates the level of seroconversion an important indicator for herd immunity and FMD serosurveillance, which suggests a decline in NSP antibody prevalence—an underlying indicator of reduced FMD virus circulation.

From the FMD Seromonitoring data & series of interactions at different platforms (state level and national level) it has been experienced that , there is a huge gap in the performance of the different states when it comes to the effective implementation of FMD control programme with a final vision of “FMD Free India”. The important gaps include management of a flawless cold chain for vaccine storage and transportation till it is inoculated in the animal, correct and timely sampling for sero-monitoring before and after vaccination, correct and timely sampling for sero-surveillance, deficiencies in effective disease reporting system & prompt action on disease prevention & control & poor stakeholders involvement etc. It has also been observed that those states which have prompt disease reporting, effectively implement the disease control programme.

On the other hands, some of the states have performed very efficiently in FMD control and will have very good scope for FMD free compartments/zones in future. Learnings from these states for good practices like last mile cold chain management (Andhra Pradesh, Karnataka), strong veterinary services (Haryana), effective animal movement with check points (Maharashtra) and combing vaccination strategies (Karnataka) are to be encouraged through such platforms for the benefit of all other states . It has also been experienced from nationwide vaccine efficacy/sero-monitoring data that the states which have robust vaccine cold chain infrastructure till last mile of vaccination performed much better and resulted in high herd immunity in short time with disease reduction as compared to the states who are lagging behind in such a cold chain infrastructure. Stakeholder's involvement and awareness (involvement of livestock farming community) is key to success in such efforts. There is huge possibility of learning and cross learning from each other for very effective implementation of the FMD control programme so as to realize our dream of “FMD Free India”. FMD being a disease

“The FMD Vaccine Quality and Quantity Is Now Sufficient to Eliminate the Disease. It Is Time Now to Look in to the **Quality and Quantity of Realistic Vaccination at the Ground Level with Stakeholder's Involvement”**

with strong transboundary nature, does not restrict with specific geography (state or the country). Therefore collective efforts are required to achieve the objectives. The results which may be achieved on disease free compartments/zones may not be sustainable in longer run until entire country becomes free from disease.



In view of this the current programme will act as a catalyst and refresher course for effective implementation of FMD control in the country. The likely participants of this programme will be all officers of animal husbandry departments across the country at “district level & above” who manage last mile vaccine cold chain and effective FMD vaccination. This is 1st level of the programme for District level and above officers. The 2nd level of the programme will target directly Veterinary Officers of Hospital/Block/Taluk level who implement the vaccination directly in the field.

Programme Schedule

Time	Topic of Presentation and Discussion	Resource Person
10.00 AM	Welcome address & a brief about the Programme	Dr R.P. Singh, Director ICAR-NIFMD, Bhubaneswar
10.15 AM	Opening Remarks	ICAR & DAHD Senior Officials
11.00 AM	<ul style="list-style-type: none">Sharing of Good Practices for effective FMD vaccination and its ImpactManagement of last-mile cold chain for FMD vaccination.	<ul style="list-style-type: none">Director, ICAR-National Institute on Foot and Mouth Disease, BhubaneswarDirector Animal Husbandry Andhra PradeshDirector of Animal Husbandry, KarnatakaDirector General, Animal Husbandry Department, Haryana
12.00 PM	FMD Outbreak prevention, biosecurity, emergency response to outbreak, ring vaccination and other contingency measures including emergency vaccine banks	Dr J.K. Mohapatra, Principal scientist, ICAR-NIFMD
12.30 PM	<ul style="list-style-type: none">FMD Sero-monitoring and its significance in assessment of Vaccine efficacyFMD Sero-surveillance- An indicator of FMD Infection and its significance	<p>Dr S. Saravanan, Principal Scientist, ICAR-NIFMD</p> <p>Dr J.K. Mohapatra, Principal scientist, ICAR-NIFMD</p>
1.00 PM	Closing Remarks	ICAR & DAHD Senior Officials
1.20 PM	Vote of thanks	Dr J.K. Mohapatra

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