Responding to an FMD outbreak in the United States will be a complex event. This Ready Reference Guide provides common guidance for all responders and planners to facilitate the development of adaptable, flexible, and scalable emergency plans and processes. All the information provided is intended to be guidance, acknowledging that any FMD outbreak will be unique and responders will need to tailor the response accordingly.

**Classification of Phases and Types of an FMD Outbreak**

**Type**
A categorical measure of magnitude of an FMD outbreak.

**Phase**
A temporal stage in FMD outbreak response.

- **Type 1:** Focal FMD Outbreak
- **Type 2:** Moderate Regional FMD Outbreak
- **Type 3:** Large Regional FMD Outbreak
- **Type 4:** Widespread or National FMD Outbreak
- **Type 5:** Catastrophic U.S. FMD Outbreak
- **Type 6:** Catastrophic North American FMD Outbreak

- **Phase 1:** From confirmation of the first case of FMD in the U.S. until reasonable evidence to estimate outbreak extent.
- **Phase 2:** Surveillance and epidemiology provides timely evidence of outbreak extent to support decisions by Incident Command.
- **Phase 3:** Recovery: surveillance and epidemiology indicates FMD is under control; plan implemented to recover disease-free status.
- **Phase 4:** U.S. declared free of FMD, possibly with vaccination.

This proposed typology of an FMD outbreak was developed by Dr. Jim Roth, of the Center for Food Security and Public Health, Iowa State University. It is one approach to describing a response to an FMD outbreak in the United States.
In an FMD outbreak in the United States, there are five strategies that may be considered:

- **Stamping-out**: depopulation of clinically affected and in-contact susceptible animals.
- **Stamping-out modified with emergency vaccination to kill**: depopulation of clinically affected and in-contact susceptible animals and vaccination of at-risk animals, with subsequent depopulation and disposal of vaccinated animals. Depopulation and disposal may be delayed until logistically feasible.
- **Stamping-out modified with emergency vaccination to slaughter**: depopulation of clinically affected and in-contact susceptible animals and vaccination of at-risk animals, with slaughter and processing of vaccinated animals, if animals are eligible for slaughter.
- **Stamping-out modified with emergency vaccination to live**: depopulation of clinically affected and in-contact susceptible animals and vaccination of at-risk animals, without subsequent depopulation of vaccinated animals. Vaccinated animals intended for breeding, slaughter, or other purposes live out their useful lives.
- **Vaccination to live (with no stamping-out)**: vaccination used without depopulation of infected animals or subsequent depopulation or slaughter of vaccinated animals.

Where should I go for more information?
www.aphis.usda.gov/fadprep
Example of Stamping-Out

This map illustrates a stamping-out strategy for controlling, containing, and eradicating FMD in the United States. This map is not prescriptive—it is only an illustration. In this example, the Infected Premises would be stamped-out, and there would be no emergency vaccination strategies employed.
FMD Outbreak Type 3: Large Regional FMD Outbreak

Example of Stamping-Out Modified with Emergency Vaccination to Kill or Emergency Vaccination to Slaughter

This map illustrates a stamping-out strategy, modified with emergency vaccination to kill or emergency vaccination to slaughter, for controlling, containing, and eradicating FMD in the United States. This map is not prescriptive—it is only an illustration. In this example, the Infected Premises would be stamped-out and there would be emergency vaccination to kill (depopulation and disposal) or emergency vaccination to slaughter (and process) within the CAs in CVZs.

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This map illustrates a stamping-out strategy, modified with emergency vaccination to live for controlling, containing, and eradicating FMD. This map is not prescriptive—it is only an illustration. In this example, the Infected Premises would be stamped-out, and there would be emergency vaccination to live outside of the CAs in PVZs. Emergency vaccinates intended for slaughter, breeding, milking or other purposes can live out their useful lives.
This map illustrates a stamping-out strategy, modified with emergency vaccination to slaughter and emergency vaccination to live. This map is not prescriptive—it is only an illustration demonstrating the possibility of employing multiple vaccination strategies during an outbreak. In this example, the Infected Premises would be stamped-out, and there would be emergency vaccination both inside (CVZs) and outside (PVZs) the CAs. Emergency vaccinated animals may be destined for slaughter or to live out their intended useful lives.
Example of Stamping-Out Modified with emergency Vaccination to Live (Regional)

This map illustrates a stamping-out strategy, modified with emergency vaccination to live. This map is not prescriptive—it is only an illustration demonstrating the possibility of employing emergency vaccination to live in regions in the United States. In this example, the Infected Premises would be stamped-out, and there would be emergency vaccination outside the CAs in PVZs. Emergency vaccinated animals would live out their intended useful lives.
Example of Stamping-Out Modified with Emergency Vaccination to Live (Large-Scale)

This map illustrates a stamping-out strategy, modified with emergency vaccination to live. This map is not prescriptive—it is only an illustration demonstrating the possibility of employing emergency vaccination to live across the entire United States. In this example, the Infected Premises would be stamped-out, and there would be emergency vaccination outside the CAs (PVZ). Emergency vaccinated animals would live out their intended useful lives.
Example of Emergency Vaccination to Live (No Stamping-Out)

This map illustrates an emergency vaccination to live strategy, where there is not stamping-out on the Infected Premises. This map is not prescriptive—it is only an illustration. In this example, emergency vaccination to live will be employed both inside (in CVZs) and outside (in PVZs) the CAs. Emergency vaccinated animals would live out their intended useful lives.