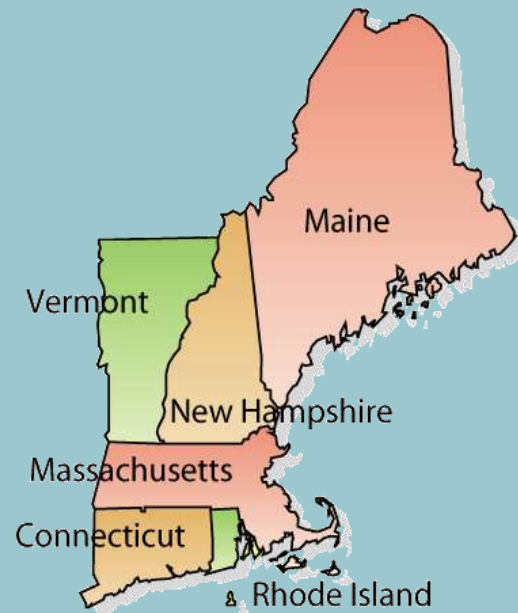


New England Perspective on Planning Movement Control and Continuity of Business



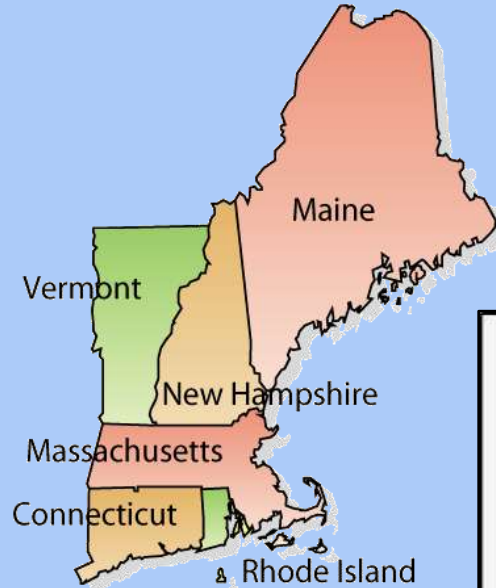
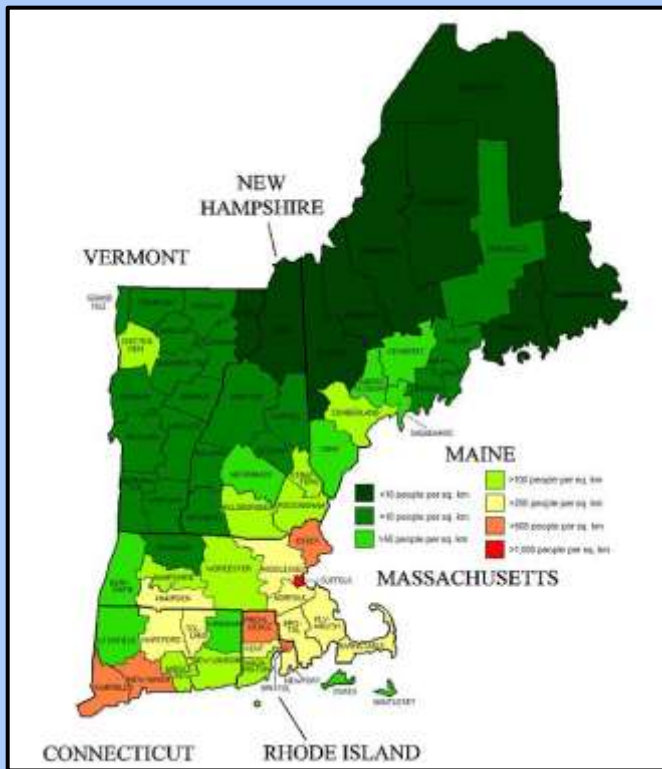
Rich Horwitz, Don Hoenig, Keith Biggers, and Jim Wall for

“National Dialogue on FMD”

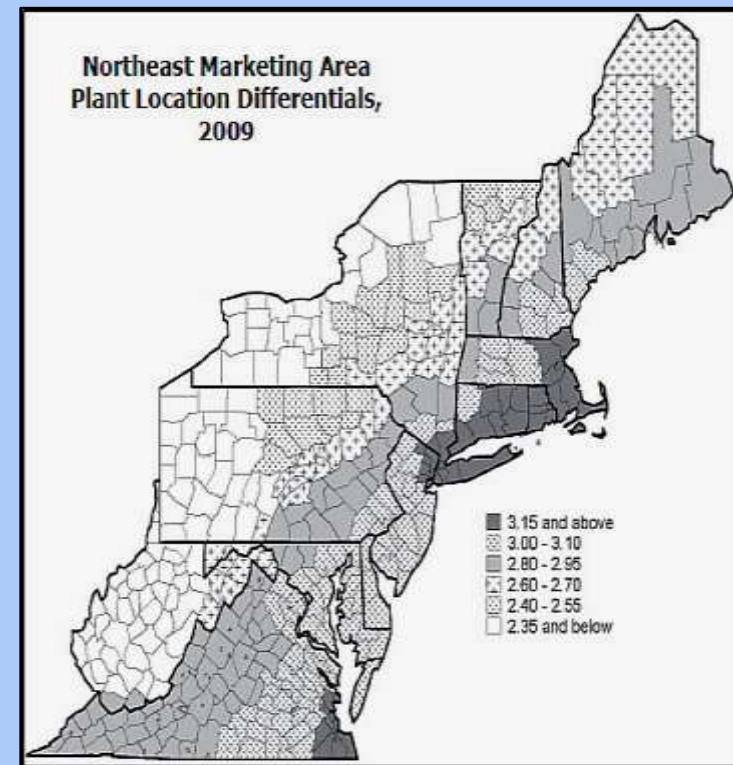
USDA-APHIS-VS National Center for Animal Health Emergency Management
Riverdale, MD November 3, 2011

Focus on the Six New England States

Population Density



Milk Price Differential

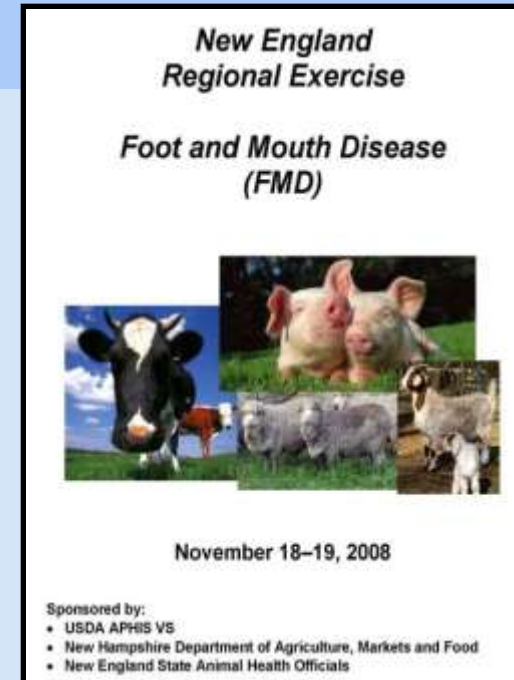


Some New England Distinctions

- **Economic and cultural importance of dairies**
- **Small state size and weak county government**
- **Population distribution and development pressure**
- **Agritourism and direct marketing**
- **Financial stress**

Developing Regional Capabilities

- **USDA/APHIS/VS Supports Regional FMD Tabletop Exercise (11/2008)**
- **After Action Report (2/2009)**
 - Develop regional capacity /capability
 - Include COOP planning for industry
- **Regional conference calls**
 - Become monthly, beginning 9/2009
- **Formation of the New England States Animal Agriculture Security Alliance (**NESAASA**)**
- **All 6 Governors sign the NESAASA Charter (7/2010)**



NESAASA Goals and Objectives 2010 - 2012

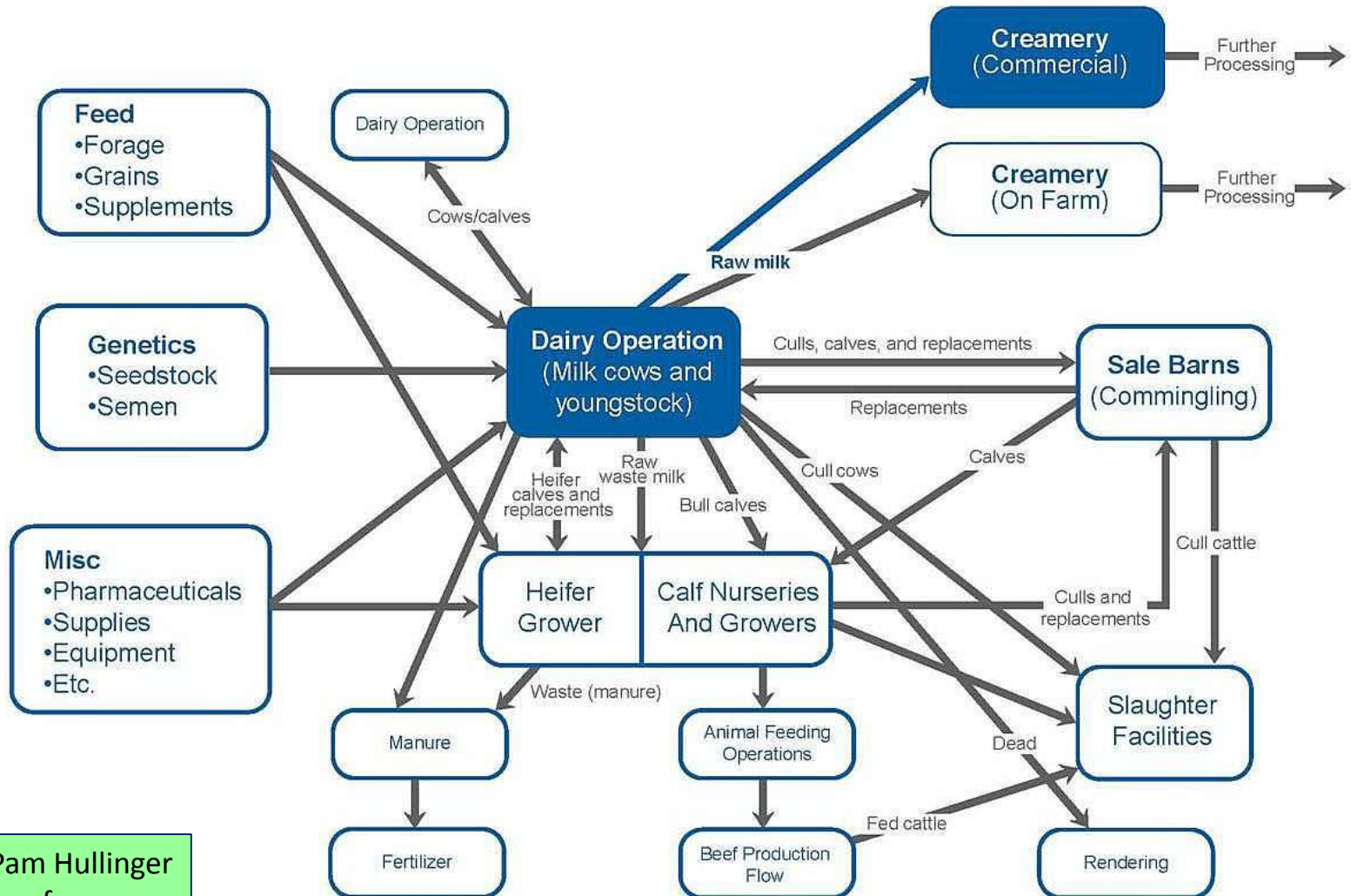
- 1. Support agricultural continuity of business plans/planning.**
 - a. Clarify regional fluid milk movement and processing variables**
 - b. Develop regional continuity of operations plan for dairy industry**
- 2. Share emergency management resources and information.**
- 3. Support state and regional training and exercises.**
- 4. Support EMAC deployment of agricultural and animal response resources.**
- 5. Enhance crisis and risk communication**

New England Secure Milk Supply (SMS) Project USDA/APHIS Cooperative Agreement

Objectives, FFY 2010-2011:

- **Document the current structure and business practices of the dairy industry in New England.**
- **Incorporate the findings into a prototype continuity of business plan (COB) for the New England dairy industry.**
- **Consult and share findings with national SMS Plan Working Groups.**
- **Present information and respond to stakeholders.**
- **Review and exercise the plan.**

Focus on Milk Movement From Farm to Plant



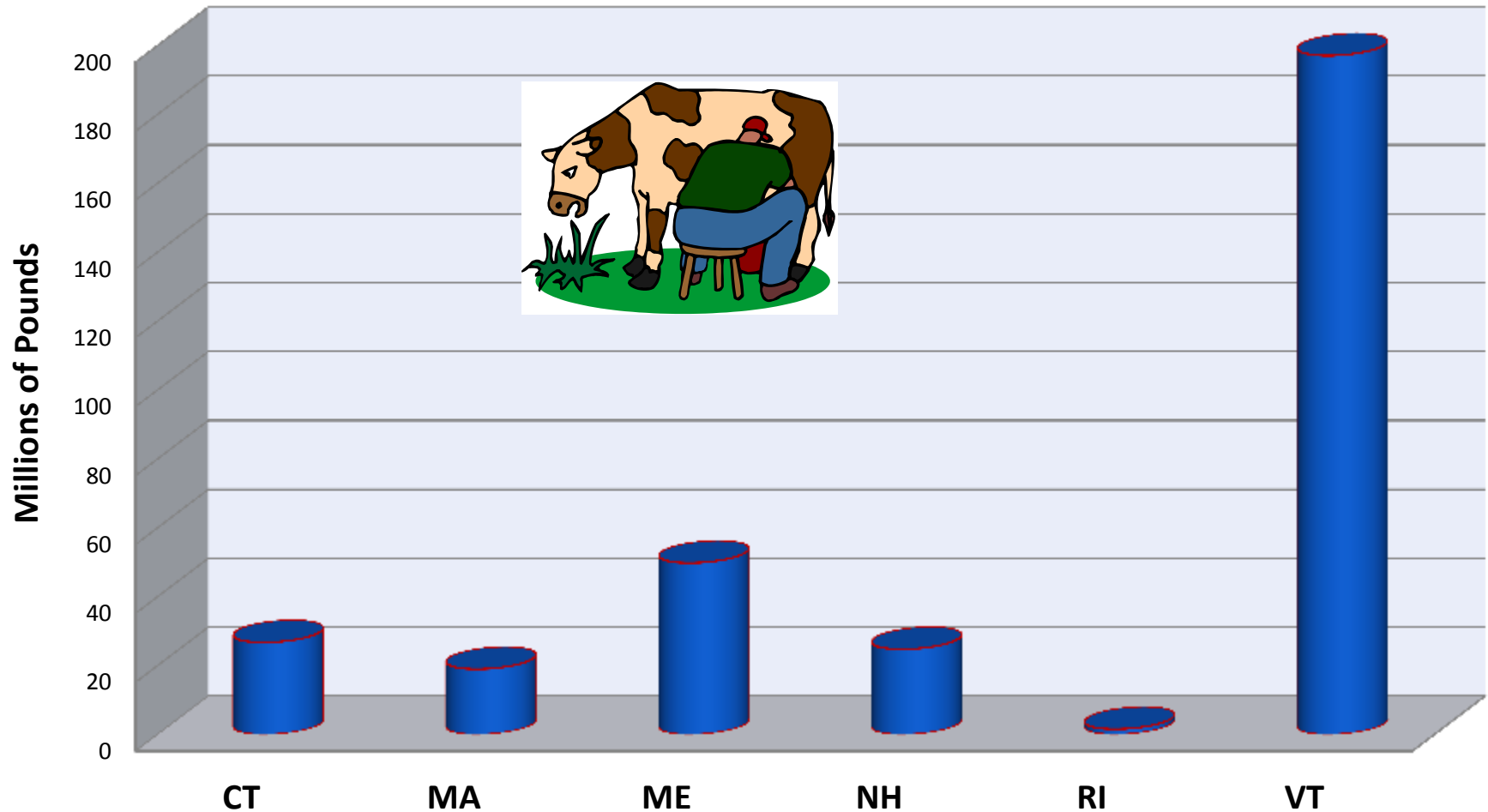
by Pam Hullinger
for
SMS Plan (2011)

Vulnerability Assessment

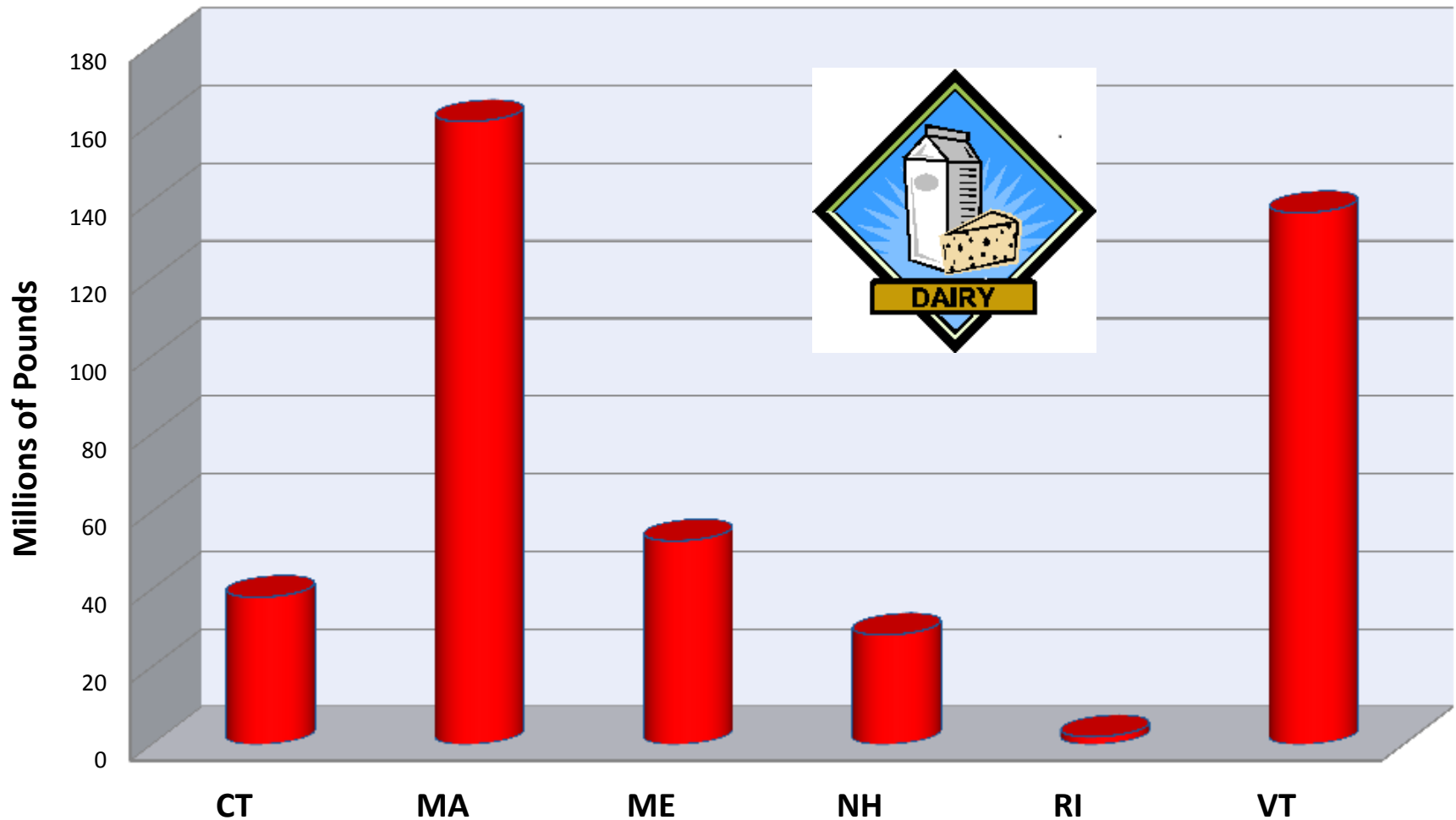
Key Questions:

- **How does milk ordinarily move in New England?**
- **If an FAD (in particular, Foot-and-Mouth Disease) strikes New England, how much dairy production and processor supply is at risk in each state? In the region as a whole?**
- **How much is at risk if measures to control the spread of disease include stops on inter-state movement? Versus region-level controls?**

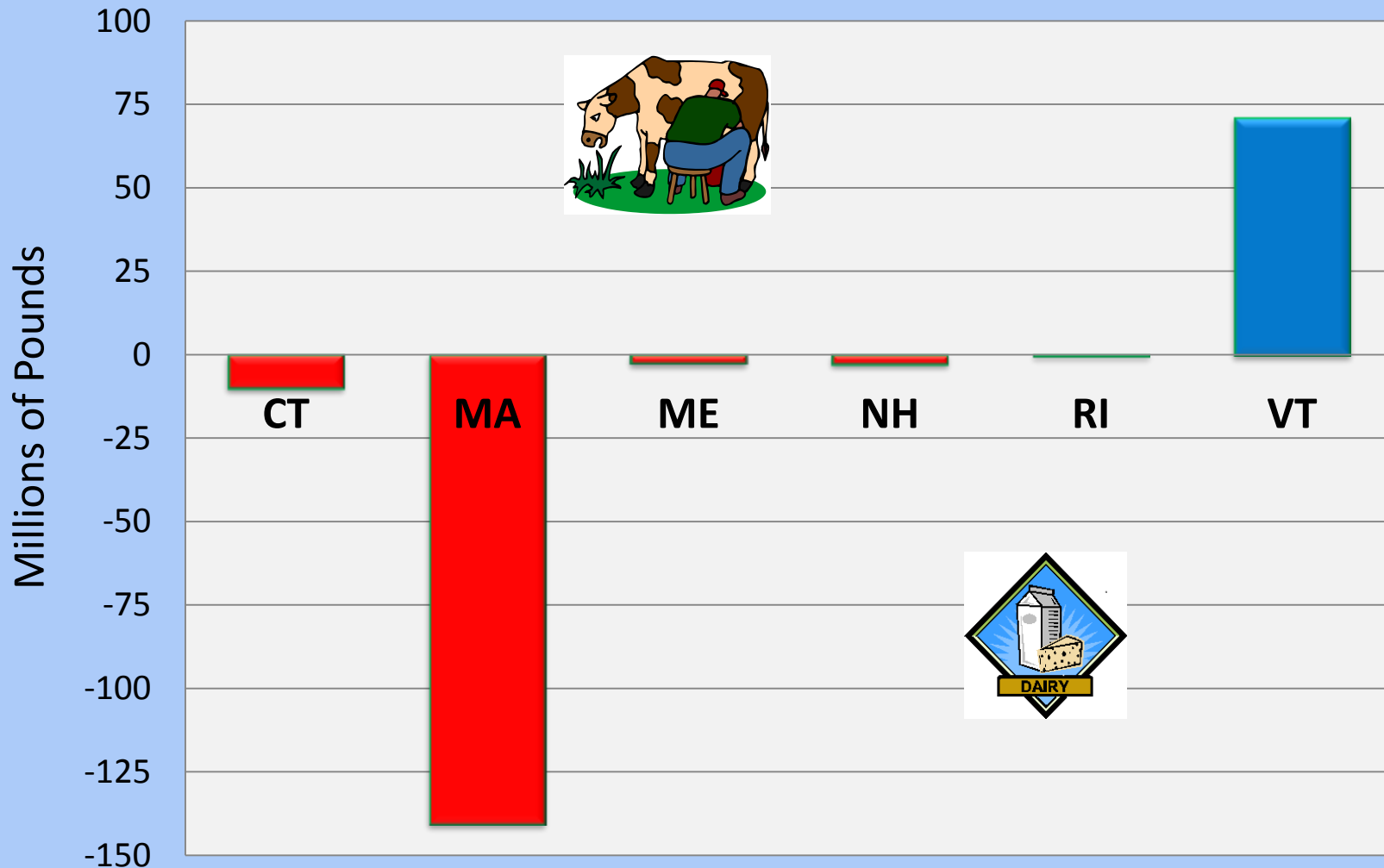
Milk Shipped from NE Dairy Farms



Milk Shipped to NE Dairy Plants



Net Markets for Interstate Milk Movement: Farm Supply Minus Plant Demand in NE States



Lessons of State-by-State Comparison (1)

- **The six states vary greatly in the amount of milk that is produced and processed in-state.**
- **They also vary greatly in their reliance on routine inter-state milk movement.**

Some states (especially MA) are milk importers; other states (especially VT) are milk exporters.

Lessons of State-by-State Comparison (2)

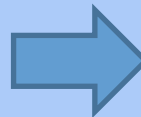
Vulnerability to infection and risks for continuity of operations vary with the role of each state in an interdependent production and marketing system.

In all New England states, both markets for farm sales and supplies for processors depend on interstate commerce.

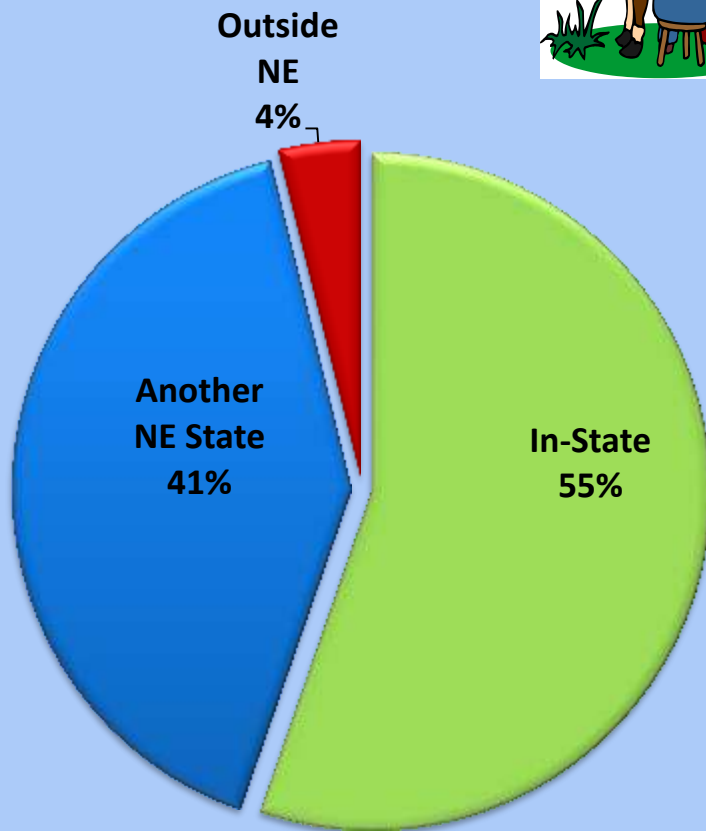
. . . But what about inter-regional milk movement?

Raw Milk Markets and Movement

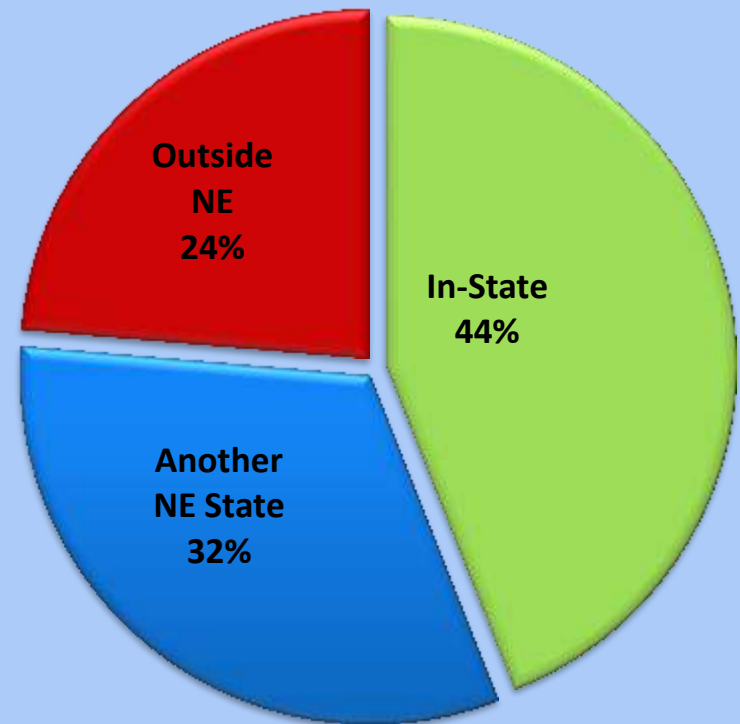
Destination of Milk from New England Farms



Origin of Milk Supply for New England Dairy Plants



1/2010 Total = 332 million pounds



1/2010 Total = 418 million pounds

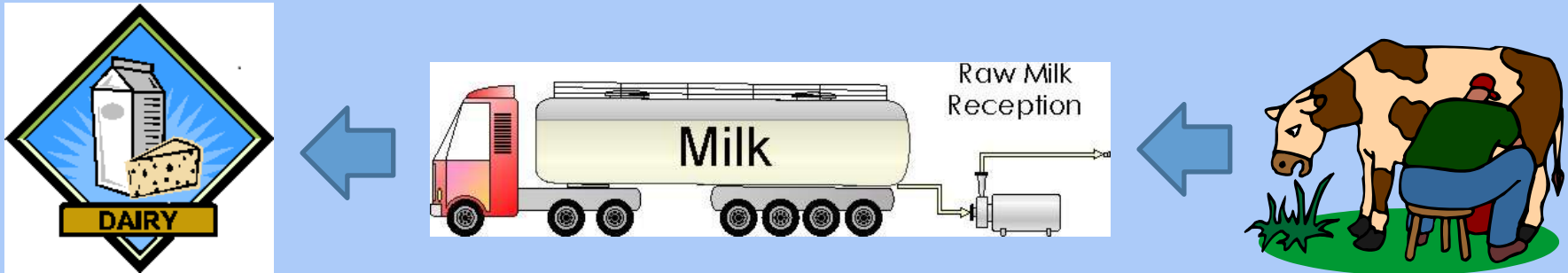
Lessons of Focus on Inter-Regional Milk Movement (1)

- **New England depends as much on interstate as in-state milk movement .**
- **Regional exports constitute a small share of the total market for milk production in New England.**
 - 13 of 333 million pounds total in January 2010.
 - Out-of-region plants increased the demand for New England milk by only 4% (peaking at just 5% in VT).
- **Regional imports are a significant but still a minority share of the total supply of raw milk for processing in New England.**
 - 99 of 418 million pounds in January 2010.
 - Out-of-region farms supplied 24% of all the milk processed in New England plants (peaking at 34% of the supply for CT, 31% for VT and 27% for MA).
- **For both supply and demand of raw milk, New York is by far the most important trade partner for New England.**

Lessons of Focus on Inter-Regional Milk Movement (2)

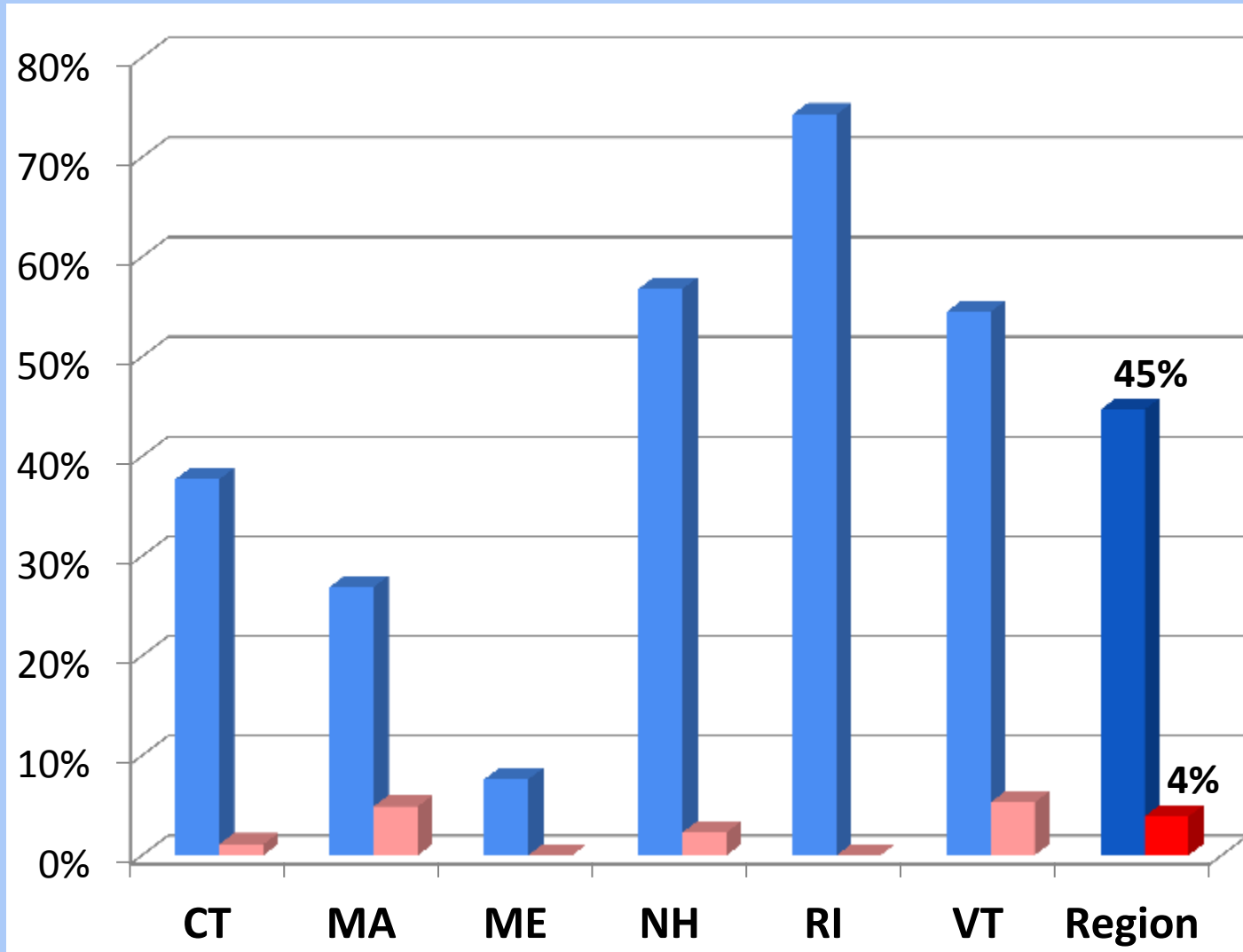
**With important limits,
the region is much less dependent
on inter-regional than
interstate transport
of raw milk.**

State vs. Region Borders For Control of Milk Movement



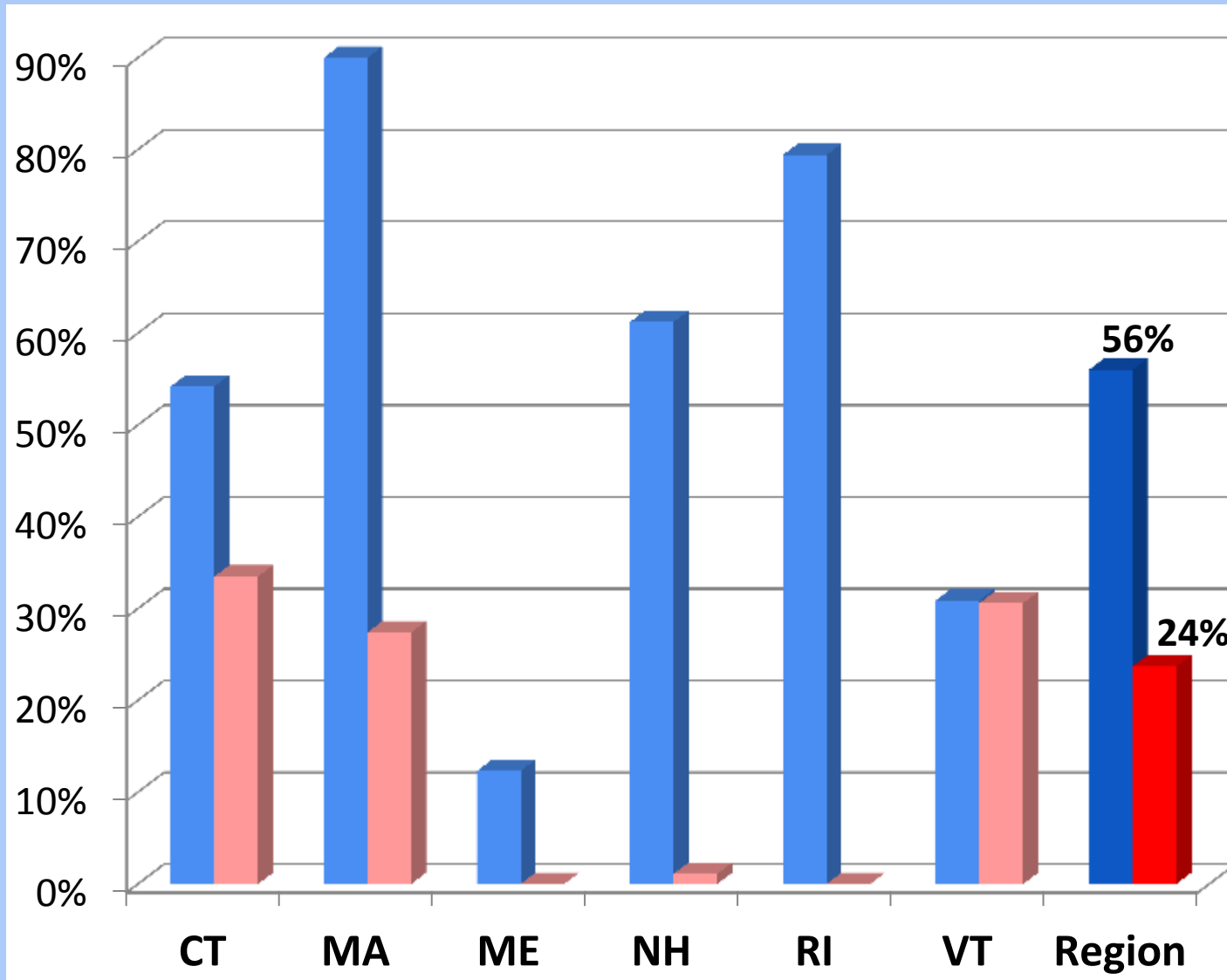
**Comparison of potential costs
for farms (e.g., loss of market and need to
dispose of waste milk)
and for plants (e.g., loss of milk supply)**

Farm Sales Loss If Milk Movements Are Stopped at State vs. Region Levels



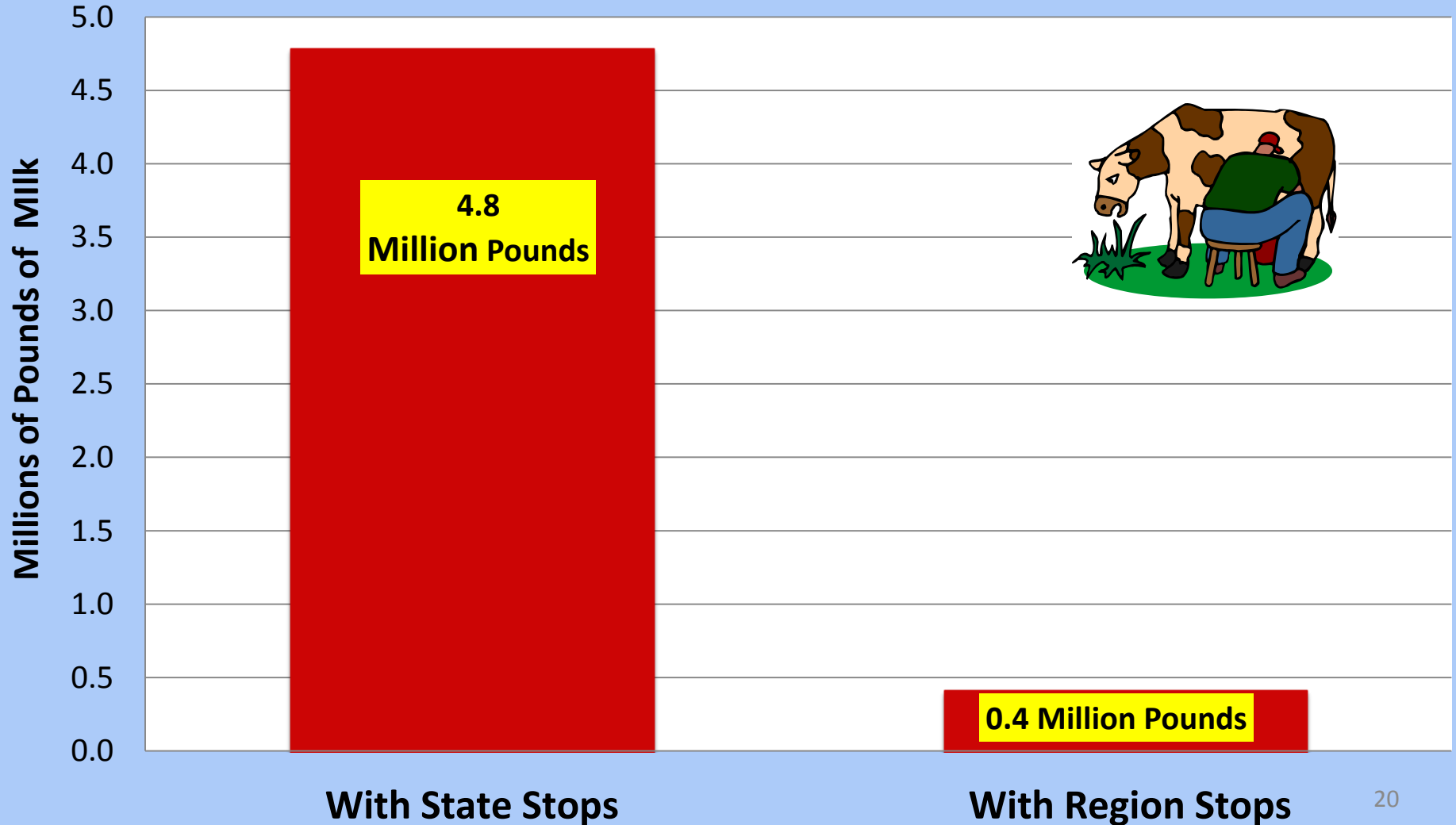
- Minimum Loss with State Stop
- Minimum Loss with Region Stop

Dairy Plant Supply Loss If Milk Movements Are Stopped at State vs. Region Levels

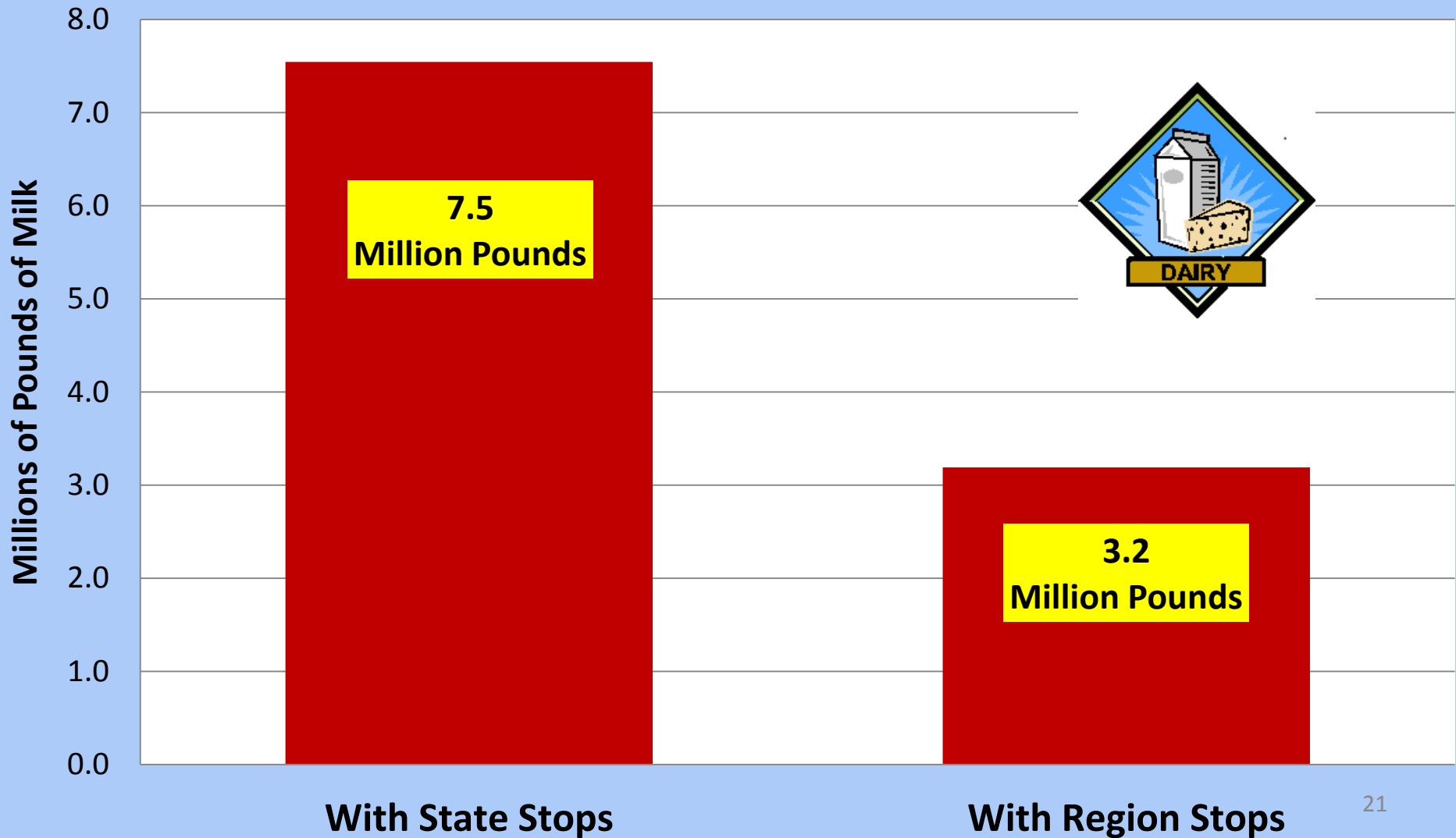


- Minimum Loss With State Stop
- Minimum Loss with Region Stop

Minimum Market Loss and Waste Generated Per Day on New England Dairy Farms With State vs. Regional Stops of Milk Movement



Minimum Supply Loss Per Day for New England Dairy Plants With State vs. Regional Stops of Milk Movement



Lessons of Comparing State and Regional Border Controls in FMD Response (1)

- **Effects of restrictions on milk movement would be severe for all stakeholders but also vary greatly among states and sectors of the dairy industry in New England.**
- **If milk movement were stopped at state borders rather than allowed to move within the region, environmental challenges and market-share losses would be particularly heavy for New England dairy farms.**
- **Stopping milk movement at the region level would be more immediately challenging for New England dairy processors (especially in CT, VT, and MA) than farmers, but they are interdependent.**

Lessons of Comparing State and Regional Border Controls in FAD Response (2)

**Continuity of business for all stakeholders
would be much less vulnerable
if milk movement restrictions were applied
at the border of the region
than at the border of each New England state.**

Recommended Goals

- 1. Develop more coordinated state FMD response plans (e.g., by embracing *The Red Book* with state-specific supplements on response organization and support of dairy continuity of business planning).**
- 2. Support national SMS and FAST Milk planning.**
- 3. In the meantime, advance regional readiness to move milk safely during an FMD outbreak, such as:**
 - Common, coordinated strategy for risk communication**
 - Common, reciprocal preparations and procedures for permitting in-state as well regional, interstate milk transport.**

Current Tasks

- **Coordinate New England and national SMS Planning.**
- **Develop a standard 6-state readiness review.**
- **Identify, collate, and geo-reference all licensed producers, as well as raw milk haulers, handlers, and processors with their territories and contact information.**
- **Develop support for information technology from Texas A&M with FAZD for:**
 - **Alternative visualization of milk movement;**
 - **Tools for optimum placement of response resources;**
 - **Extending the bio-security survey and data management of the six state collection system.**
- **Develop support for AHP (weighting “readiness” of farms for biosecure milk pickup).**

Outreach and Coordination

- **Participate in SMS National Steering Committee and working groups.**
- **Direct contacts with individual farms, co-ops, haulers, and processors plus regional commodity groups.**
- **Hold 1-3 workshops in each of the six states, including leadership of public- and private-sector stakeholders.**
- **Present at national and regional meetings of regulatory authorities and animal health practitioners (e.g., NESAASA, USAHA, NEUSAHA, NEVMA, NESAASA).**
- **Participate in state, and regional exercises (e.g., DMI).**

Coordinate New England and National SMS Planning

New England Secure Milk Supply Project

Regional Planning Documents

[Project Summary](#) - one-page statement of purpose

[Abstract of FMD as a Hazard for New England Dairies](#) - one-page summary

[FMD as a Hazard for New England Dairies](#) - vulnerability assessment with documentation

[Communicating with Dairy Consumers about FMD](#) - guide to risk communication

[New England SMS Project Update](#) (7-13-2011)

State Workshops on FMD Vulnerability and Preparedness in . . .

[Connecticut](#)

[Maine](#)

[Massachusetts](#)

[New Hampshire](#)

[Rhode Island](#)

[Vermont](#)

Draft Performance Standards from the National SMS Plan

[Phases and Types of an FMD Outbreak and Response](#) (8-27-2011)

[Recommendations from the Milk Movement Working Group](#) (8-27-2011)

[Dairy Premise Biosecurity](#) (9-1-2011)

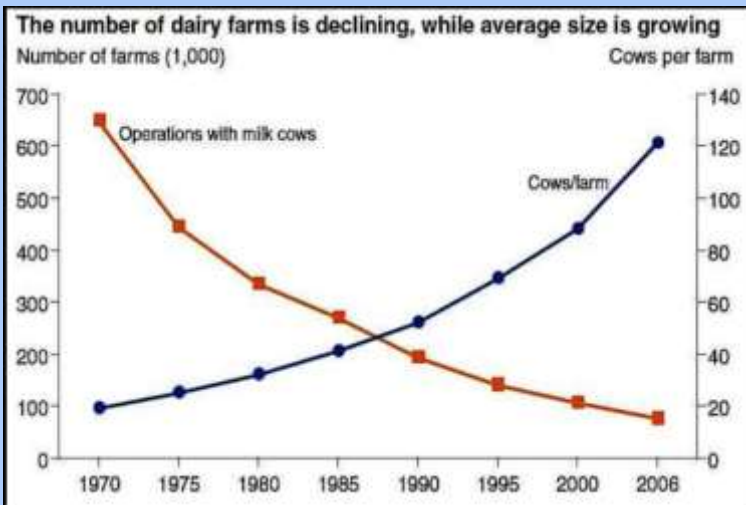
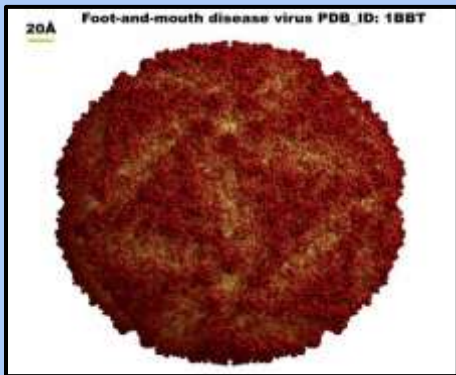
[Milk Hauler Biosecurity](#) (9-1-2011)

Richard P. Horwitz, NESAAASA Consultant, 2010-2012

rhorwitz@cox.net

Regional Vulnerability Assessment

FOOT-AND-MOUTH DISEASE (FMD) AS A HAZARD FOR NEW ENGLAND DAIRIES



California, 1924⁹



U.K., 2001¹⁰



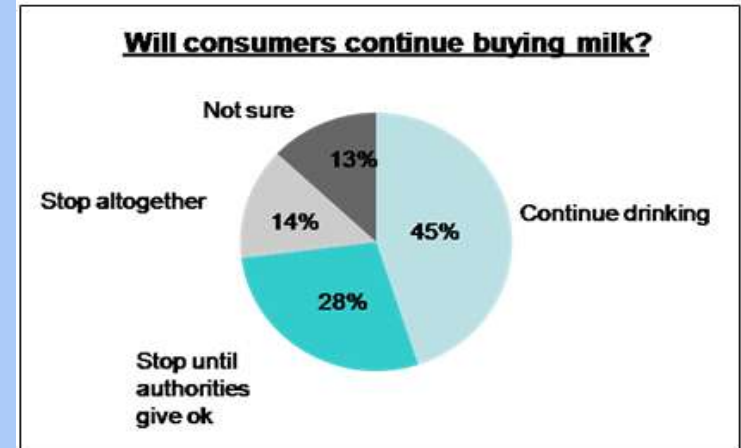
Guide to Risk Communication

Communicating with Dairy Consumers about FMD

by
Richard P. Horwitz, Consultant, June 30, 2011

Contents

Introduction	1
Consumer Confidence	1
FMD Concerns	2
Trusted sources.....	4
Key messages.....	5
Message Maps (2006).....	8
Risk Communication Resources:.....	25
Message maps for and FMD outbreak	25
E-resources	25
Guides to communication with consumers about FMD.....	25
General guides to risk communication and message mapping.....	25



MESSAGE MAP

AGENT: FOOT-AND-MOUTH DISEASE (FMD)
STAKEHOLDER: PUBLIC / MEDIA / FARMERS
QUESTION: HOW CAN I PROTECT MY FARM AGAINST FOOT AND MOUTH DISEASE?

KEY MESSAGE 1	KEY MESSAGE 2	KEY MESSAGE 3
Use strict biosecurity measures on your farm.	Prevent disease introduction into your herd.	Monitor livestock regularly and contact your veterinarian if you suspect illness.
Support Point 1.1 Isolate any animals showing signs of illness.	Support Point 2.1 Isolate new or returning animals for at least two weeks before reintroduction into the herd.	Support Point 3.1 Monitor livestock regularly for signs of FMD.
Support Point 1.2 Monitor and record any movement of people, vehicles or animals on or off your farm.	Support Point 2.2 Wash and disinfect shoes and clothing after traveling abroad.	Support Point 3.2 Signs of FMD include blisters or ulcers on the mouth, tongue, feet and udder; excessive drooling; reluctance to move; stopping eating.
Support Point 1.3 Wash and disinfect items going on or off your farm, such as boots, vehicles and equipment.	Support Point 2.3 Do not bring foreign meat products into the U.S.	Support Point 3.3 Notify your veterinarian if livestock show signs of illness.

Unhappy surprise



Hummm... what does this mean?



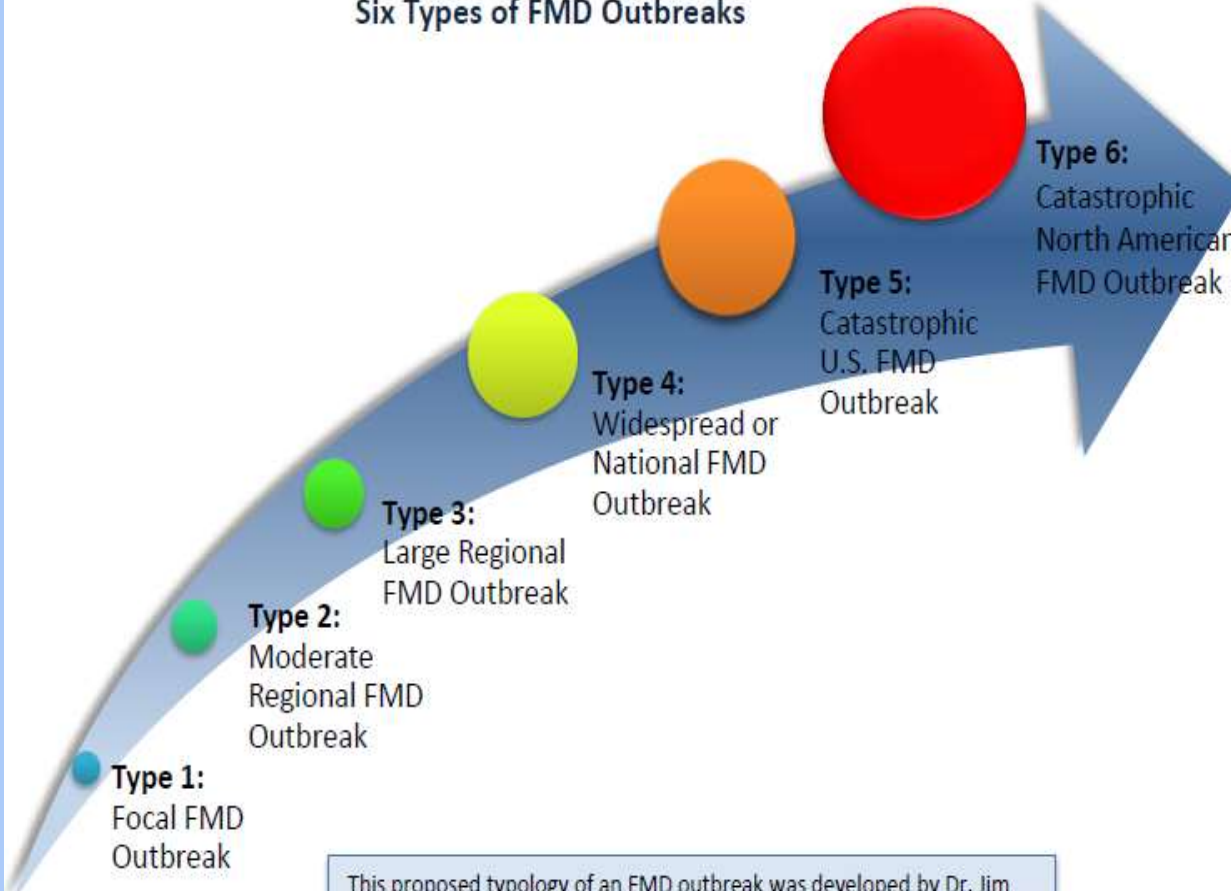
Need more info



Words: Concerned, Upset, Worried, Fear, Amazed, Shocked, Scared (I have kids, a family), Mistrust, Despair, ARG!, Not now!, What's next?

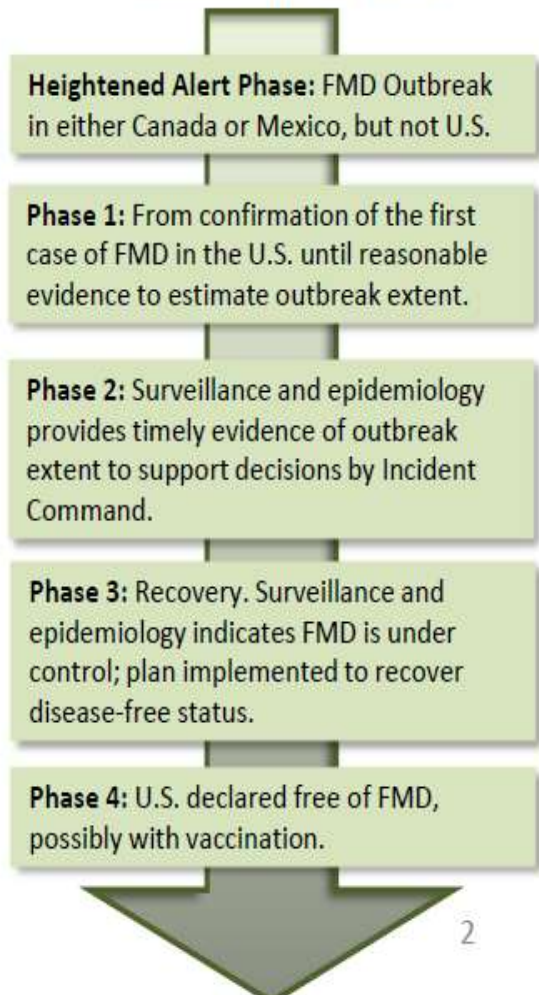
Coordinate NE and National SMS Planning: Phases and Types of Outbreak

Six Types of FMD Outbreaks



This proposed typology of an FMD outbreak was developed by Dr. Jim Roth, of the Center for Food Safety and Public Health, Iowa State University, as part of the Secure Milk Supply efforts. It is one approach to describing a response to an FMD outbreak in the United States.

Phases of FMD Response



Accommodate National SMS Performance Standards: E.g., Permit Eligibility by Phases and Types of Outbreak

Milk Movement Permit Decision Matrix									
E.g., Phase 2, Type 2 (Surveillance Phase of a Moderate Regional Outbreak)									
Premises Designation	Control Area	Increased Premises Biosecurity*	Increased Milk Truck Biosecurity*	Increased Milk Plant Biosecurity*	Active surveillance for absence of clinical signs **	Multiple Farm Loads per Truck Allowed	Permit to Treat to OIE Standards		
							in Control Area	out of Control Area	
Infected premises	No milk movement								
Contact premises	No milk movement								
Suspect premises	No milk movement								
At risk premises		Yes	Yes	Yes	Yes	No	OK	No	
Monitored premises		Yes	Yes	Yes	Yes	No	OK	OK	
Vaccinated premises (14 days post vac)	Not Applicable								
Free Area									
Free Premises in surveillance zone		No	No	No	Yes	Yes	OK	OK	
Free Premises not in surveillance zone		No	No	No	No	Yes	OK	OK	

Simplified, Regional Response Matrix

ELIGIBILITY FOR MILK PICK-UP PERMIT

PREMISES TYPE	LOCATION	ELIGIBLE?
Free Area		
Free Premises	Beyond the Surveillance Zone	Yes, no permit necessary
Free Premises	Surveillance Zone	Yes, no permit necessary
Protection Vaccination Zone		
Free Premises	Protection Vaccination Zone	Yes, if premises is Ready*
Vaccinated Premises (at least 14 days post)	Protection Vaccination Zone	Yes, if premises is Ready*
Control Area		
Free Premises	Containment Vaccination Zone	Yes, if premises is Ready*
Vaccinated Premises (at least 14 days post)	Containment Vaccination Zone	Yes, if premises is Ready*
Monitored Premises	Infected Zone or Buffer Zone	Yes, if premises is Ready* and if response is Regional**
At-risk Premises	Infected Zone or Buffer Zone	Yes, if premises is Ready* and if response is Regional**
Suspect Premises	Infected Zone or Buffer Zone	No
Contact Premises	Infected Zone or Buffer Zone	No
Infected Premises	Infected Zone	No

Coordinate NE and National SMS Planning: Prioritize and Triage

To qualify as “Ready,” a dairy farm must complete at least the following preparations:

- Check susceptible livestock twice daily for clinical signs of infection and find none.
- Establish and document adequate premises biosecurity, including:
 - Control farm access (secure the perimeter of dairy operations),
 - Maintain records of all on and off farm movements, and
 - Clean and decontaminate vehicle and foot traffic to and from the premises.
- Secure pick-up service from a hauler with adequate, documented truck biosecurity and delivery to a processing plant with approved biosecurity.

But if incident response is regional and assets are tight,
some premises will necessarily get more help than others.
So . . . Who becomes eligible first? With how much help?

Readiness Review

FARM READINESS FOR EMERGENCY MILK MOVEMENT

FARM

Farm	
Business Name:	
Address (where cows are milked):	
City or Town:	
Zip Code:	
County:	
Township:	
GPS Coordinates (milking parlor, in degrees and minutes)	
North:	
West:	
Premises Identification Number (PID):	
<input type="checkbox"/> State issued or	
<input type="checkbox"/> Federally issued	
Primary Contact	
Name:	
Business address:	

ANSWERS TO QUESTIONS ABOUT THE REVIEW OF FARM READINESS FOR EMERGENCY MILK MOVEMENT

What is this?

This review is to gather information about your farm, especially information about communication and biosecurity that will be necessary in an emergency, such as an outbreak of Foot-and-Mouth Disease (FMD).

Who should complete this review?

We ask that you – the owner or manager of the dairy farm – answer as many questions as you can in the company of a state agricultural official or milk regulator. The official must be there to verify your answers and to respond to any questions or suggestions that you may have.

How will this information be used?

State and federal officials will use the information to better respond to a livestock emergency.

Data Collection, Management, and Analysis

FAZD CENTER

USDA/APHIS

National Center for Foreign Animal and Zoonotic Disease Defense Center
Texas A&M University



Online Readiness Review

The FAZD Center will host a web-based survey for easy collection of information to improve continuity of dairy operations in an emergency.

Information can be provided by dairy owners/managers or regulators, and can be updated as frequently as needed.

Secure!!!
NEAASA Farm Readiness for Emergency MHA Movement

The on-stakes of NEAASA (the New England States Animal Agriculture Security Alliance) aim to use this survey to improve support for continuity of dairy operations in the event of an emergency.

Progress: 0% / 100%

Production Information

The on-stakes asks for general information about the farm, its location, and business and financial details. The information collected in this section is very important to the ability and accuracy of help that is sent as well as the effective containment of an FMD outbreak. Please provide as much information as possible, and ensure that the information you provide is accurate.

How many head of dairy cattle do you have?

City/county to be used in this form:

Milking cows:

Dry cows:

Heifer calves:

Calves:

Stubs:

Order "X" where appropriate, do not leave any blank fields.

How many head of other FMD-susceptible livestock do you have?

City/county to be used in this form:

Swine:

Sheep:

Goats:

Ungulates:

Parrots/birds:

Other:

Order "X" where appropriate, do not leave any blank fields.

How many non-FMD-susceptible livestock do you have?

City/county to be used in this form:

Equine:

Secure!!!
NEAASA Farm Readiness for Emergency MHA Movement

The on-stakes of NEAASA (the New England States Animal Agriculture Security Alliance) aim to use this survey to improve support for continuity of dairy operations in the event of an emergency.

Progress: 0% / 100%

Production Specifications

The on-stakes asks for information related to the perimeter of the farm, including access and fencing. The information collected in this section is very important to the ability and accuracy of help that is sent as well as the effective containment of an FMD outbreak. Please provide as much information as possible, and ensure that the information you provide is accurate.

How far is the perimeter of your dairy operations from the nearest neighboring perimeter with FMD-susceptible animals?

Does any road apply?

Distance (feet):

Distance (miles):

Please only select one of the options above.

How long is the fence from the well with link to the public road (if any)?

City/county to be used in this form:

Length (feet):

How long is the fence from feed storage to the public road (if any)?

City/county to be used in this form:

Length (feet):

Is the fencing sufficient to keep dairy stock or any other livestock off the premises?

Yes No

Is the fencing sufficient to prevent contact between livestock and wildlife?

Yes No

Is the fencing sufficient to prevent ticks and dogs from entering between fence?

Yes No

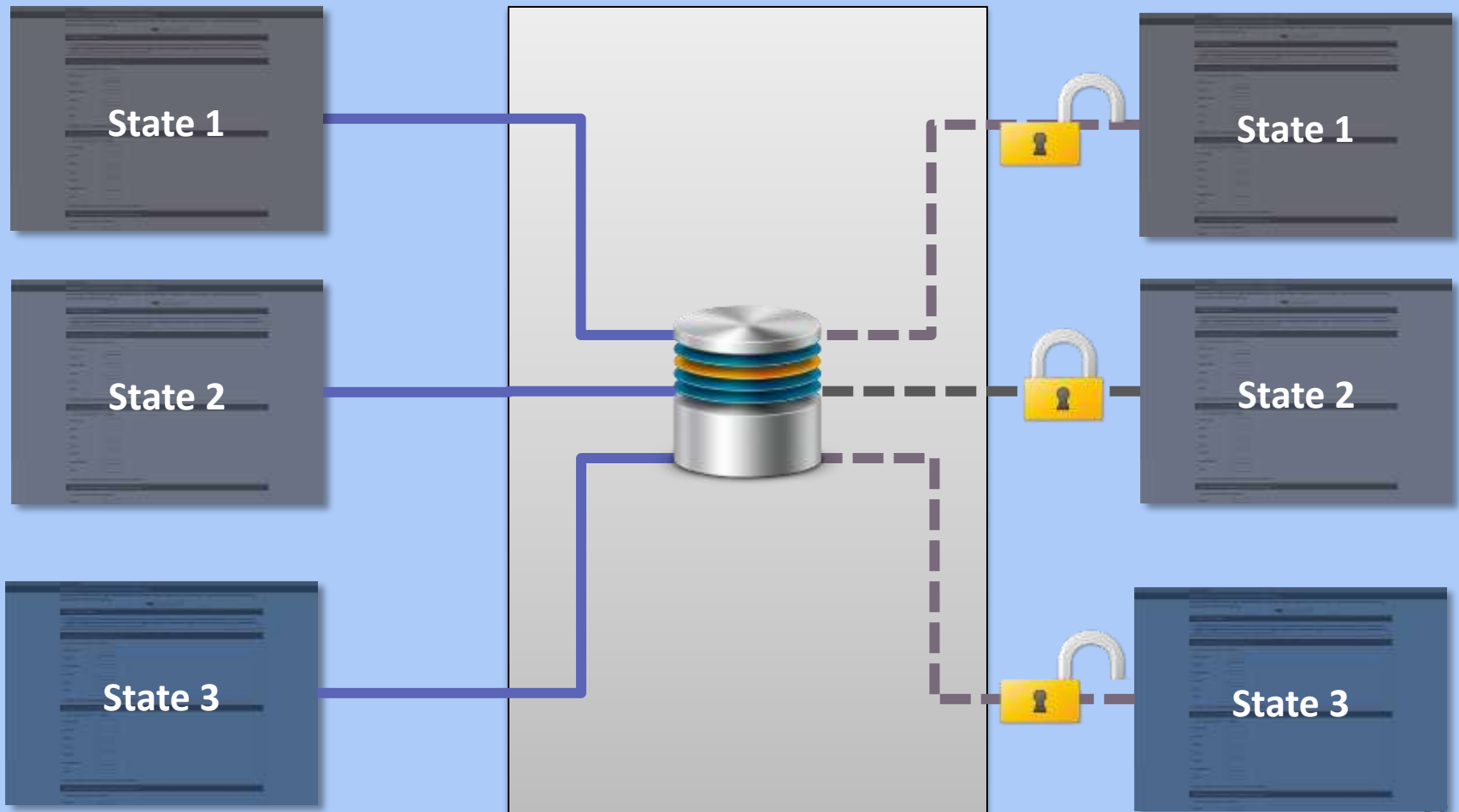
Is the fencing sufficient to control other pests, such as birds or rodents?

Data Collection and Compartmentalization

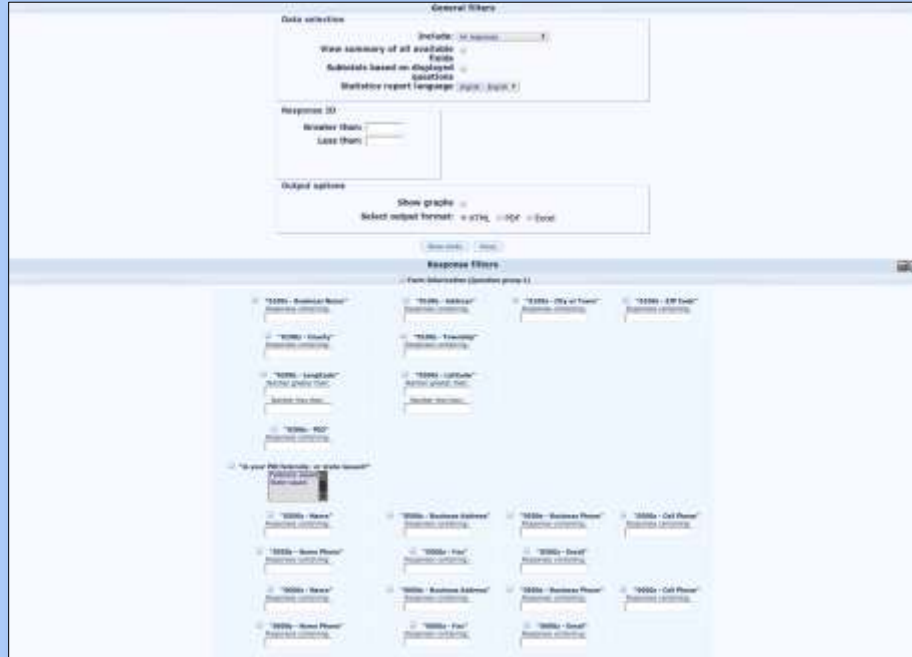
1. Each state can input and manage their own information.

2. The data will be warehoused by FAZD, and maintained until needed.

3. In the event of an incident, the data can be shared and used as necessary.



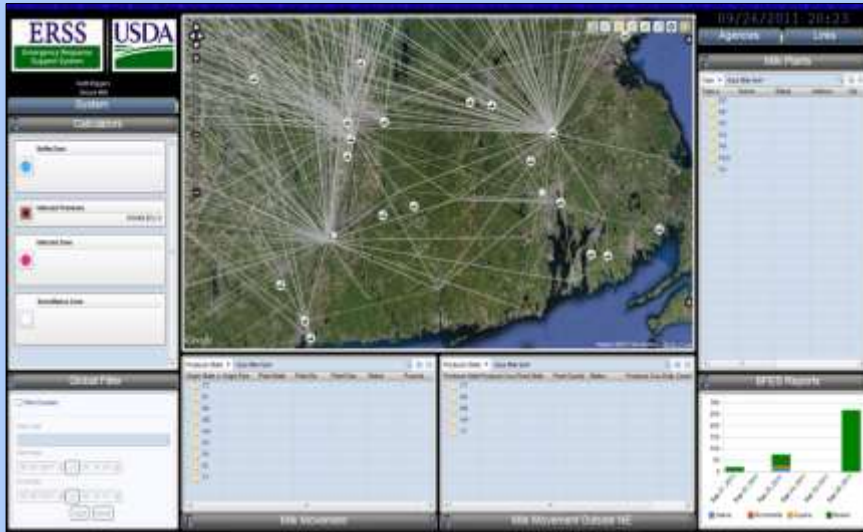
Response Application: Custom Reporting



Custom report generation and data filtering to support a variety of applications.

Data can be exported for use by ERSS and within other external applications.

Response Application: Visualization and Analysis



Direct integration of the data into ERSS for custom visualization and analysis.

- **Visualization of facilities within a region**
- **Analysis of product movement between locations**

Customized tools to support the response process.

- **Incident management and coordination**
- **Custom calculators for impact analysis**
- **Decision aids for resource placement**

Contact Information

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