

# **Foot-and-Mouth Disease Information / NBAF Position Paper**

**The National Grange**  
June 2008





# Foot-and-Mouth Disease Information / NBAF Position Paper

The National Grange | June 2008

## FOOT-AND-MOUTH DISEASE FAQ

### What is FMD?

Foot-and-Mouth Disease, or simply FMD, is a highly contagious and possibly fatal viral disease that affects cattle, pigs, goats, sheep, deer, and other animals of the wild or the farm.

Animals that are infected with FMD and recover still face decreased milk production and halted growth, thereby not only causing great economic damage to the farmer, but also to a country's agricultural sector. Currently, there is no known cure.

### How contagious is FMD, and how is it spread?

Foot-and-Mouth Disease is twenty times more infectious than smallpox, and the airborne transmission range of the disease has a radius of fifty miles.

While the disease is spread most commonly from animal to animal, humans can also spread the disease, as FMD can inhabit a person's lungs for up to forty-eight hours.

Most anything can be a carrier for FMD, including standing water, hay, or facilities/vehicles that are exposed to the virus.

### What are the signs that my livestock may be infected with FMD?

Signs of infected animals vary among types of animals, but some common signs include:

- Marked rise in body temperature for 2 to 3 days;
- Vesicles that rupture and discharge clear or cloudy fluid, leaving raw, eroded areas surrounded by ragged fragments of loose tissue;
- Production of sticky, foamy, stringy saliva;
- Reduced consumption of feed due to painful tongue and mouth lesions
- Lameness with reluctance to move;
- Abortions;
- Low milk production (dairy cows);
- Low rate of conception;
- Death of other animals.



## Foot-and-Mouth Disease Information / NBAF Position Paper

The National Grange | June 2008

### **Has there ever been an outbreak of FMD?**

The United States has seen nine outbreaks of FMD since 1870, the most devastating of which occurred in 1914, infecting over 170,000 cattle, sheep, and swine. That outbreak cost the country \$93.3 million in 2007 USD.

Although the last U.S. outbreak of FMD hasn't occurred since 1929, more recently, FMD has been common in other countries. For instance, the U.K. has seen two outbreaks of FMD within the past eight years alone.

### **What would happen if an outbreak of FMD occurred today?**

In 2006, the National Institute of Justice, the criminal justice policy research arm of the U.S. Department of Justice, published a Research for Policy brief entitled "Agroterrorism- Why We're Not Ready" that identified FMD as the greatest agroterrorist threat facing our nation. An outbreak of FMD within the United States would result in the slaughtering of millions of animals in an attempt to halt the spread of the disease.

Domestic and international sales of meat products would be disrupted for at least several months, and quite likely, even years, as the government would attempt to halt the spread, and foreign countries would refuse to accept our agricultural exports in fear of inciting their own FMD outbreaks.

Currently, there is no single plan for dealing with an outbreak of the disease. Although many people believe that public health officials would be in charge of the response, this may not be true. Local, state, and federal law enforcement agencies would almost certainly be involved, as agroterrorism would be the assumed cause until proven otherwise.

A conservative estimate of the total cost to our economy of an FMD outbreak is \$60 billion.

***For more information on Foot-and-Mouth Disease or its potential effects on American agriculture, please visit [www.fmdinfo.org](http://www.fmdinfo.org).***



## Foot-and-Mouth Disease Information / NBAF Position Paper

The National Grange | June 2008

### POSITION OF THE NATIONAL GRANGE ON THE PROPOSED NATIONAL BIO AND AGRO-DEFENSE FACILITY

#### Background

The Plum Island Animal Disease Center (PIADC) is a federal research facility located on Plum Island, about 1.5 miles off the coast of Long Island, NY. The center is dedicated to the study of and protection of American livestock from foreign animal diseases.

In June 2003, operational responsibility of the facility was transferred from the U.S. Department of Agriculture to the Department of Homeland Security (DHS), and on September 11, 2005, DHS announced plans to replace the facility with a new “National Bio and Agro-Defense Facility” (NBAF).

Currently, only six out of the original pool of twenty-nine potential relocation sites remain, and the Department of Homeland Security is expected to select one by early 2009. While the current offshore location is among the final six, the other five are all located on the mainland in the states of Kansas, Texas, Mississippi, North Carolina, and Georgia.

#### What You Should Know

While there are understandable arguments in favor of relocating such a facility to the mainland, such as research cooperation with major universities, the National Grange *firmly* believes that the risks of doing so *far outweigh* the benefits.

The National Grange’s threat assessment concerns for locating the proposed NBAF, and especially the research facilities for animal diseases such as Foot-and-Mouth, on the mainland fall into three broad categories:

- Insufficiency to implement protocols and procedures that would prevent an accidental or intentional release of harmful pathogens from the facility;
- A possible agroterrorist attack against, or in the vicinity of, the NBAF that deliberately releases pathogens and causes mass confusion; and
- Ancillary economic and social damage to farming and rural communities within the vicinity of the NBAF due to the “perceived risk” of such an outbreak.



## Foot-and-Mouth Disease Information / NBAF Position Paper

The National Grange | June 2008

In 2006, the National Institute of Justice, the criminal justice policy research arm of the U.S. Department of Justice, published a Research for Policy brief entitled "Agroterrorism- Why We're Not Ready" that identified FMD as the greatest agroterrorist threat facing our nation. Experts agree that locating the proposed NBAF on an island would afford an additional layer of security and protection in the event of an outbreak. For this and many other reasons, the National Grange believes that it is of the utmost importance that the Department of Homeland Security chose an offshore location for a new NBAF facility.

### Role Of The National Grange

Thus far, the National Grange has worked towards persuading government officials that, while there is a widely recognized need for a new animal disease research center, such a new facility should remain on Plum Island *or a similar, off shore site*.

On May 22, 2008, National Grange Legislative Director Leroy Watson testified in opposition to a mainland NBAF site before the House Subcommittee on Oversight & Investigations. In his testimony, he outlined the National Grange's aforementioned concerns, as well as spoke in favor of a new NBAF facility, so long as it is located offshore. A follow up hearing will be held on an unspecified, future date.

Grange members who wish to voice concerns to the Department of Homeland Security, should send comments to:

U.S. Department of Homeland Security  
Building 410  
245 Murray Lane SW  
Washington, D.C. 20528

***For more information on the National Grange's involvement in keeping NBAF off of the U.S. mainland, please visit our website at [www.nationalgrange.org](http://www.nationalgrange.org), or contact the National Grange office at 1-888-4-GRANGE.***

### Information in this report has been gathered from:

*Agroterrorism - Why We're Not Ready: a Look At the Role of Law Enforcement. National Institute of Justice. 2006. 20 May 2008*  
<<http://www.ncjrs.gov/pdffiles1/nij/214752.pdf>>.

*"DHS | National Bio and Agro-Defense Facility." 18 Apr. 2008. U.S. Department of Homeland Security. 12 June 2008*  
<[http://www.dhs.gov/xres/labs/editorial\\_0762.shtm](http://www.dhs.gov/xres/labs/editorial_0762.shtm)>.

*"FMD Foot-and-Mouth Disease: Information, News and Resources." FMDInfo.Org. 2008. National Cattlemen's Beef Association. 10 June 2008* <<http://www.fmdinfo.org/aboutfmd.aspx>>.



## **National Grange Opposes Mainland Research Facility**

*(Washington, DC)* – In a strongly worded letter to Secretary of Agriculture Ed Schafer, the National Grange, the nation’s oldest general farm and rural public interest organization representing family farmers and rural citizens, expressed its opposition to the development of a Foot-and-Mouth Disease research facility on the United States Mainland. Currently this disease research is accomplished on an isolated island laboratory in New York’s Long Island Sound, far away from U. S. livestock, and thus minimizing the risk for a catastrophic outbreak, which would devastate our domestic livestock industry. The research accomplished includes vaccine and drug development, testing of imported animals, and professional training.

The Bush administration is proposing additional highly sensitive research at a new National Bio Defense Facility on the U. S. mainland near hundreds of thousands of livestock. Proposed sites for the new laboratory include the states of Kansas, Georgia, North Carolina, Texas, and Mississippi. The National Grange strongly believes any outbreak containment would be more successful at the existing isolated facility than at a proposed mainland site. The Foot-and-Mouth virus, which does not affect humans, is nonetheless, highly contagious and can be carried by breath, clothes, and vehicles.

Ed Luttrell, National Grange President stated, “Bio-security will always be an issue on the mainland so placing a new research facility on the continental United States greatly increases the risk of a catastrophic outbreak. Consequently the National Grange recommends renovating the existing facility to obtain the security necessary to perform higher-level research such as viral transfer from animals to humans rather than building a new facility on the continental U. S.”

Proponents of a new mainland facility say modern safety rules at labs are sufficient to avoid any potential outbreak. But incidents in Britain have demonstrated that the foot-and-mouth virus can cause remarkable economic havoc, and that the virus can escape from a facility. An epidemic in 2001 devastated Britain's livestock industry, as the government slaughtered 6 million sheep, cows and pigs. Last year, in a less serious outbreak, Britain's health and safety agency concluded the virus probably escaped from a site shared by a government research center and a vaccine maker. Other outbreaks have occurred in Taiwan in 1997 and China last year and in 2006. The United States has not had an outbreak of Foot-and-Mouth Disease since the 1920s.



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

1400 Independence  
Avenue, SW

Washington, DC  
20250

MAY 16 2008

Mr. Leroy Watson  
Legislative Director  
National Grange of the Patrons of Husbandry  
shamfam5@verizon.net

Dear Mr. Watson:

Thank you for your letter of April 30, 2008, to Secretary Edward T. Schafer on behalf of the National Grange concerning Plum Island Animal Disease Center (PIADC) research and diagnostic activities.

We recognize your concern and appreciate this opportunity to respond. As you may know, in June 2003, operational responsibility for the PIADC transferred from the U.S. Department of Agriculture (USDA) to the U.S. Department of Homeland Security (DHS) under the Homeland Security Act of 2002. We have developed a strong, collaborative partnership with DHS, and are working together to establish the National Bio- and Agro-Defense Facility (NBAF), a next-generation facility to replace the current PIADC structures. Although DHS is ultimately responsible for the selection of an NBAF site, USDA has been closely involved throughout the process. Our Agency of USDA and USDA's Agricultural Research Service have provided detailed program requirements to DHS, and we have representatives on the site selection committee, the site inspection team, and the environmental impact statement (EIS) team. Because DHS is responsible for the selection of the NBAF site, you may wish to contact DHS directly, the address is DHS, Building 410, 245 Murray Lane SW., Washington, D.C. 20528. In addition, DHS has a Web page with information about the NBAF at [www.dhs.gov/nbaf](http://www.dhs.gov/nbaf).

Since 1954, the PIADC has played a critical role in helping USDA develop the tools and expertise needed to protect U.S. livestock from foreign animal diseases (FAD) such as foot-and-mouth disease (FMD). However, the current state of the aging facility has created a backlog of needed space for important experiments, diagnostic development, and training efforts. For instance, USDA cannot carry out biosecurity level 4 (BSL-4) activities at the PIADC, meaning that the United States does not currently have a facility to address certain high-consequence, zoonotic diseases such as Rift Valley fever, Nipah, and Hendra.



Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs

An Equal Opportunity Provider and Employer

Mr. Leroy Watson

Page 2

DHS is currently preparing an EIS considering six site alternatives, including Plum Island and mainland locations. While we understand concerns about moving certain FAD research activities to the U.S. mainland, we assure you that, with today's much more advanced technologies, neither location nor physical barriers dictate abilities to manage effective biosecurity and biosafety practices.

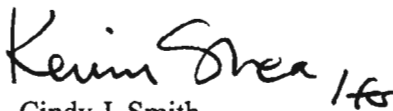
A 2002 study commissioned by USDA and completed by the Science Applications International Corporation (SAIC), found that the FMD virus and other exotic foreign animal diseases of concern could be fully and safely contained within a BSL-3 laboratory, as was being done at the time in other countries including Canada, Germany, and Brazil. A second SAIC study also concluded that there was a valid USDA need for a BSL-4 facility, and that a BSL-4 facility for large animal work could be safely located on the mainland.

In planning for the NBAF, we recognize the absolutely essential need for state-of-the-art biosafety practices and procedures, including stringent and rigorous safety measures within the laboratories themselves, to prevent disease organisms from escaping into the environment. Situations such as the recent suspected release of live FMD virus from the Pirbright campus in England only serve to highlight this importance. In fact, we can use that example as a learning opportunity to make sure that the design and maintenance of the U.S. NBAF facility enables us to carry out the essential activities needed to protect the Nation from FADs while ensuring the highest level of biosafety.

We also wish to point out that, among other potential advantages, locating the NBAF in a more accessible location (i.e., on the mainland) would enhance the speed with which USDA could respond to a potential FAD threat. There are other benefits as well: the cost of living would be lower for employees; personnel recruitment would be easier; the facility would be more accessible if weather conditions or emergency situations force air traffic shutdowns; and, the facility would not be subject to the occasional wind closures that we experience at the PIADC due to rough waters.

We hope this information is helpful and demonstrates our commitment to ensuring that our diagnostic capabilities and resources reflect the new and changing FADs that continue to emerge.

Sincerely,



Cindy J. Smith  
Administrator



## **National Grange Urges Congress to Oppose a “Live Strain” Mainland Animal Disease Research Facility**

*(Washington, DC)* – National Grange Legislative Director, Leroy Watson, testified today before the Subcommittee on Oversight and Investigations of the U. S. House of Representatives Committee on Energy and Commerce opposing any government plans to develop an animal disease research facility including live strains of virulent diseases on the U. S. Mainland. Currently research on virulent foreign animal diseases (FADs) including live strains of Foot and Mouth Disease (FMD) are performed at Plumb Island Animal Disease Center, an isolated island off the United States eastern shoreline away from existing concentrations of commercial livestock.

“We believe that the economic risks of a potential outbreak of FMD to family farmers and ranchers across the nation with commercial livestock operations will far outweigh the advantages the Government has put forth to justify their proposals to bring this critical and sensitive research back to the mainland and away from the isolated island research facility where it has been successfully conducted for more than fifty years,” Watson stated. While there are many possible scenarios for the outbreak of animal diseases that would pose a significant economic risk to family farmers and ranchers as well as to their surrounding rural communities and their natural environments, few come close to the nightmare of an outbreak of FMD in dramatically impacting many aspects of American life.

There is no known cure for FMD once it has been contracted. Once the disease was loose on the mainland U.S., it could require mass slaughter and disposal of potentially tens of millions of individual carcasses of domestic and wild animals to control the outbreak. It would undoubtedly disrupt the domestic and international sale of meat and meat products throughout the nation for months or even years. “We believe the ancillary costs to general commerce, outdoor recreation, and impacts on future investments in the livestock sector by family farmers and ranchers would exceed the conservative USDA estimate of \$60 billion in direct costs by several fold,” Watson stated.

To illustrate his concerns, Watson told Sub-committee members about recent Great Britain experiences where two outbreaks of FMD have been attributed to release from bio-research facilities working with FMD. A 2001 outbreak caused at least \$16 billion in damages, devastated the rural economy, and nearly caused the government to fall. “The experiences in Great Britain lead us to conclude that conducting federal research on dangerous animal diseases on the U.S. mainland is a risk we do not have to take,” Watson said.

[more]

Even if an outbreak never occurs, National Grange is concerned that a mainland facility would become an inviting target for espionage and terrorist or criminal attacks aimed at breaching the physical and procedural barrier built into the facility and getting these pathogens out of the laboratory to eventually be released into the environment. “Our concern is that a facility located on the mainland would attract an extremely broad universe of potential terrorist or criminal organizations to use an attack on the facility to advance their goals, Watson stated.

The National Grange believes that geographic isolation at the Plumb Island Research facility remains a prudent, cost effective means of adding additional security to the facility and the vicinity. Watson concluded, “National Grange strongly believes that the selection process for a research facility of this nature has under appreciated the need for geographic isolation of a facility like this as a prudent, reasonable, and cost effective security measure that will assure our nation a world class bio and agro research facility and the assurance that this facility will not pose accidental or incidental risk to rural communities in which potentially tens of thousands of family farmers and ranchers live.”

-30-

The National Grange is the nation’s oldest agricultural and rural community organization, and has evolved to incorporate the interests of non-farm rural families and communities, as well as the traditional interests of family farmers and ranchers. It has nearly 3,000 state, local, and grassroots chapters across 40 states. Additional information about the organization’s positions is available at: [www.nationalgrange.org](http://www.nationalgrange.org).

## **SAMPLE LETTER**

*[Month, DD, YYYY]*

NBAF Program Manager Jamie Johnson  
Department of Homeland Security  
245 Murray Lane, SW Bldg 410  
Washington, D.C. 20528

Dear Ms. Johnson,

I'm writing in regard to the decision making process that your department is currently undertaking to select a site for the proposed National Bio and Agro-Defense Facility (NBAF). I understand that of twenty-nine sites originally proposed, only six remain – five of which are on the U.S. mainland.

As a rural American, I have several concerns in regard to the construction of NBAF on the mainland of the United States anywhere near livestock operations that are owned and managed by thousands of family farmers and ranchers. Most of my concerns cannot be adequately answered by the promises of state-of-the-art safety features and precautions of DHS.

Of course, after two outbreaks of Foot and Mouth Disease (FMD) in the U.K in the past eight years and problems in our own country, such as the less than adequate response by the Federal Government to Hurricane Katrina, family farmers, ranchers, and rural Americans are highly skeptical of DHS' assurances that NBAF's safety procedures will be fail-safe. Even if the technology in such a facility were to be fail-safe, the risk of human error would remain high. For example, from January of 2004 to the middle of 2007, there were 103 outbreaks from BLS 3 and BLS 4 laboratories in the U.S. alone, 90 of which were caused by human error.

It is also important to note that the release of a harmful pathogen, such as FMD, whether accidental or intentional, would never have to occur for the facility to have a largely negative impact on the culture and economy of the local region. Just taking into account the perceived risk involved with handling a virus that is twenty times more infectious than small pox and has an airborne transmission range of fifty miles, there is no way that beginning farmers and ranchers will want to start a career in agriculture anywhere near such a facility. Outside investment of the area in consideration could also face serious consequences if NBAF were to be placed there.

Finally, I am greatly concerned by the potential for terrorist acts against a mainland NBAF. In 2006, the National Institute of Justice published a Research for Policy brief entitled "Agroterrorism – Why We're Not Ready" that identified FMD as the greatest agroterrorist threat facing our nation. Because this disease is to be studied at NBAF, I can say with confidence that the placement of NBAF on the mainland is not worth the invitation of agroterrorism. If a pathogen were to be released anywhere near the outer perimeter of the facility, the consequences would be magnified many times over, as local, state, and federal law enforcement scrambled to determine whether the release came from the facility or from an

*Continued on next page...*

Ms. Jamie Johnson  
Page 2

intentional release. This investigation would be a waste of time and resources, would delay or halt important ongoing research initiatives at the NBAF facility and would quickly cause DHS to lose the trust and support of both rural and urban Americans.

I understand the risks already posing our agricultural sector and our national economy by the potential for an accidental or intentional release of a disease such as FMD, which is why I support the effort to construct NBAF. However, for the aforementioned reasons and many more, I am firmly opposed to such a facility being placed on the mainland of the United States.

Sincerely,

*[Your Signature]*

*[Your Typed Name]*

*[Your Address]*

*[Your Address]*

***For an editable version of this letter in Microsoft Word, please contact National Grange Legislative Intern John Goodman at 1-888-4-GRANGE ext. 105, or at [intern@nationalgrange.org](mailto:intern@nationalgrange.org).***