



## Agrosecurity – Protecting America’s Food Supply An Introduction to Agrosecurity Challenges

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America has enjoyed one of the safest food supplies in the world for more than a generation. Every link in America’s food supply chain has played a key role in ensuring the wholesomeness of the food we eat. This production chain is complex and has many players. As a result of this complexity, there are several ways in which this production system could be disrupted, leading to fear amongst consumers, reduced confidence in our production systems, and ultimately in severe cases, a complete disruption of America’s food supply.

The importance of protecting the food supply has been an often-stated theme between national leaders since that fateful day in September 2001 when America realized how vulnerable we are to attack. Secretary of Health and Human Services, Tommy Thompson, stated shortly after September 11<sup>th</sup>, “*I, for the life of me, cannot understand why the terrorists have not attacked our food supply, because it is so easy to do.*” For those of us who are actively engaged in producing food and fiber for America, this was our “call to arms” to ensure that such attacks never disrupt our lives and those of the millions who rely upon our products for sustenance.

Before beginning to look at agrosecurity, there are some terms which need to be addressed so we are on equal footing as we discuss the topic. This fact sheet will serve as an introduction to the topic of agrosecurity and will be followed by other fact sheets that will address certain aspects of agrosecurity in more depth.

An **emergency** is a sudden, urgent incident that usually requires immediate action from traditional responders in a community. A **disaster**, on the other hand, is an incident that causes great loss of life, damage or

hardship and requires resources from a variety of response agencies both within a community and without.<sup>1</sup>

### Threat Types

There are three basic types of threats that can impact agricultural production: natural, accidental and intentional. Each of these threat types involves unique challenges; however plans can be developed to minimize the impacts that come with one or all of them.<sup>2</sup>

### Natural Threats

Natural threats are those caused by acts of nature. Hurricanes, floods, ice storms, droughts, or dust storms are common examples of natural agricultural threats. Natural threats can assume many shapes and impact a



Figure 1. Tribune, KS - December 2006. A heifer covered in ice following a severe blizzard (Yeagan and Husband, 2009).

variety of production enterprises from agronomic crops to livestock and wildlife. Depending on the magnitude of the incident, it may have impacts across many different enterprises such as in the case of an earthquake or flood, or it may only impact a very specific enterprise in the case of a naturally-occurring disease. Other potential natural threats to agricultural enterprises could include severe storms, wildfires and pests. In addition, one type of natural threat – such as drought – can increase the threat from another; as in increased fire from drought conditions.

## Accidental Threats

Accidental threats are threats that impact agricultural enterprises from sources that are not naturally occurring. These threats can come from on or off the farm. Examples of these could be highway accidents involving chemical spills, contamination of a crop with a biological agent found in irrigation water (e.g., *Salmonella* or *E. coli* 0157H7), or pests unintentionally introduced into an area by someone travelling through. Common on-farm, accidental threats are pesticide spills, inadvertent contamination of product with chemicals, or facility failure outside of acts of nature. Local government agencies often have plans to mitigate the effects of these types of events relative to the local population, but often they do not cover impacts to local agriculture. Agricultural producers should take an active role with emergency response agencies to ensure that the welfare of animals and crops are also taken into account during these types of emergencies.

## Intentional Threats

The final threat category is much more nefarious than the previous two because it entails intentional acts directed toward disrupting food production and the economic welfare of the country. This is what is known as *Agroterrorism*, and it is a very real threat to the welfare of our animals, crops and livelihoods.

Agroterrorism can be carried out by domestic terrorist groups such as the ALF (Animal Liberation Front) or ELF (Earth Liberation Front) or by foreign nationals such as those who attacked the World Trade Center on September 11, 2001.

Agriculture is one of the easiest economic sectors to disrupt. Since agricultural enterprises are subject to a variety of natural phenomena, such as naturally-occurring diseases, terrorists could capitalize on this fact to make intentional acts appear to be natural.

Domestic terrorists generally look to disrupt agricultural production by damaging production, marketing or processing facilities or by using the media to negatively impact agricultural markets through misinformation relative to husbandry/production practices. While we refer to them as “domestic” terrorists, many of the groups they may be affiliated with, or have ties to, are considered to be international eco-terrorist organizations. Examples of impacts that ecoterrorists have had on animal enterprises are the recent release of mink from a northern Utah mink farm<sup>3</sup> or a series of arson fires at the Brigham Young University’s Ellsworth Farm.<sup>4</sup>

Foreign-based terrorists have planned and attempted attacks on American agriculture in the recent past. Below are images confiscated from Al Qaeda terrorists in Afghanistan which indicate they were planning attacks against agricultural entities in the United States. Prior to 2007, U.S. Homeland Security officials intercepted foreign nationals from Southeast Asian countries who were posing as Mexican nationals. In their possession were several vials of blood containing highly-infectious foot and mouth disease bacteria. When questioned, they indicated that their intent was to release this very virulent disease-causing agent into the livestock populations in the southwestern U.S. to disrupt the meat supply.<sup>5</sup>

Anti-Animals  
Foot-Mouth Disease  
Rinderpest - Cattle Plague  
New cattle  
Hog cholera  
Foot plague  
Brucellosis

ANTI PLANTS  
Rice Blast  
Maize Rust  
Black stem Rust of cereals.  
Rice blight  
Corn blight

Figure 2. Hand-written notes confiscated by U.S. military personnel from Al Qaeda operatives in Afghanistan. Notes indicate how Al Qaeda was planning to use biological agents to disrupt the U.S. food supply. (Courtesy of Federal Bureau of Investigation & Joint Terrorism task Force, 2008.)

## Conclusion

Whether natural, accidental or intentional, there are a variety of threats to agricultural production in the United States. American agricultural producers can and should implement plans to eliminate, or at the very least, minimize and/or mitigate the impacts of encroachments on the security of their enterprises. This fact sheet series is designed to assist producers in identifying potential risks and implementing best management practices that will minimize those risks and help make American agriculture impervious to outside attack.

## References

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5. Viera, A. 2007. Presentation on Federal Bureau of Investigation involvement with weapons of mass destruction relative to animal agriculture. Southwest Regional Animal Agrosecurity Conference. Las Cruces, NM. April 3-4, 2007.

## Photo Credits

Figure 1. Yeargan, R., and A. Husband. 2008. Animal Agrosecurity and Emergency Management Course Instructor Guide. Extension Disaster Education Network/Kentucky Cooperative Extension Service. P. 1-5.

Figure 2. Federal Bureau of Investigation and Joint Terrorism Task Force. 2008. Presented at International Symposium on Agroterrorism, April 22, 2008.

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