

8-1-2007

## Steps to Bolster Your Dairy Farm's Biosecurity: An Introductory Video

Julia M. Smith

University of Vermont, [julie.m.smith@uvm.edu](mailto:julie.m.smith@uvm.edu)



This work is licensed under a [Creative Commons Attribution-NonCommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

---

### Recommended Citation

Smith, J. M. (2007). Steps to Bolster Your Dairy Farm's Biosecurity: An Introductory Video. *The Journal of Extension*, 45(4), Article 29. <https://tigerprints.clemson.edu/joe/vol45/iss4/29>

This Tools of the Trade is brought to you for free and open access by the Conferences at TigerPrints. It has been accepted for inclusion in The Journal of Extension by an authorized editor of TigerPrints. For more information, please contact [kokeefe@clemson.edu](mailto:kokeefe@clemson.edu).



August 2007 // Volume 45 // Number 4 // Tools of the Trade // 4TOT6



PREVIOUS  
ARTICLE



ISSUE  
CONTENTS



NEXT  
ARTICLE



## Steps to Bolster Your Dairy Farm's Biosecurity: An Introductory Video

### Abstract

The Healthy Farms--Healthy Agriculture video overview of dairy farm biosecurity serves as a stand-alone teaching tool or an introduction to additional resources. The narrated video takes the viewer through the steps needed to build a sound biosecurity program. These steps form the acronym "STAIRS," standing for sanitation, traffic control, assessment, isolation, resistance, and security. Bringing biosecurity to life in pictures makes it easier to teach or reemphasize basic concepts.

### Julia M. Smith

Assistant Professor and Extension Dairy Specialist  
University of Vermont  
Burlington, Vermont  
[Julie.M.Smith@uvm.edu](mailto:Julie.M.Smith@uvm.edu)

## Introduction

Bovine viral diarrhea virus, contagious mastitis, and Johne's disease--these and other endemic, infectious diseases cost the U.S. dairy industry millions of dollars each year (Weersink, VanLeeuwen, Chi, & Keefe., 2002; Kirk, 1998; Adaska & Kirk, n.d.). In 2001, the Foot and Mouth disease outbreak in the UK cost billions of dollars and required the slaughter of 6 million animals to control (Risk Solutions, 2005) in a country not much bigger than New England.

On-farm biosecurity may not prevent a foreign animal disease like Foot and Mouth disease from gaining entry into this country, but it can help stop it in its tracks. In addition, by developing and implementing comprehensive biosecurity programs, farmers can control production-limiting diseases that are already present in this country. Extension educators, who play a critical role in providing non-biased, non-commercial information and assistance to livestock producers, now have an audio-visual tool to help convey the concepts of biosecurity to multiple audiences.

*Healthy Farms--Healthy Agriculture: Protecting the Health of Animal Agriculture* (Smith, 2004) is a 20-minute video that introduces the concept of biosecurity to youth and new farmers and serves as a refresher for seasoned farmers. I scripted and produced this video with the assistance of professional videographers, editors, and a narrator. While created as a supplement linked to the USDA-funded *Healthy Farms--Healthy Agriculture* materials (Smith, Ather, Murray, & Yandow, 2003) (available online at: <http://www.uvm.edu/~ascibios>), it can also be used as a stand-alone product in Extension biosecurity education programs.

## "STAIRS" Spells Biosecurity

The video is organized around the acronym "STAIRS," which stands for the basic steps of biosecurity: Sanitation, Traffic control, Assessment, Isolation, Resistance, and Security. Basic principles of dairy biosecurity are discussed with reference to more in-depth materials available at the *Healthy Farms--Healthy Agriculture* Web site. Although Assessment ("A") is truly the place to start, the middle placement serves as a reminder that reassessments are important to monitor compliance with best management practices and make sure no steps are missing. Because it is an essential part of establishing a farm-specific biosecurity program, the assessment tool is included with the purchase of a video from *Hoard's Dairyman*.

- **Sanitation**--Illustrates basic principles of sanitation (cleaning and disinfection) to be followed

by visitors as well as employees.

- **Traffic control**--Discusses how risks associated with different types of visitors require different precautions and how increased susceptibility of certain categories of animals should dictate work routines.
- **Assessment**--Outlines the process of developing, implementing, communicating, and reviewing the biosecurity plan. Assessment is the starting point for developing a farm-specific biosecurity plan.
- **Isolation**--Provides practical advice on collecting animal histories, taking samples, giving shots, and setting up and operating an isolation area. Some of the greatest risks to herd health involve introducing new or recently exhibited animals into the home herd.
- **Resistance**--Explains how vaccination programs stimulate specific resistance, while proper nutrition and comfortable housing can support non-specific disease resistance.
- **Security**--Describes how farm security encompasses protection from disease, intruders, and contamination. This segment focuses on disease, but also provides pointers on other aspects of farm security and who to call for help.

## Healthy Farms Video User Guide

### 1. Pictures Worth Thousands of Words

This narrated video introduces people to biosecurity in action and where to go for additional information. The images provide a basic framework for Extension educators teaching biosecurity to new and experienced farmers, service providers, and farm visitors.

### 2. A Teachable Moment

In one scene, a veterinarian is seen injecting what looks like antibiotics into the rear thigh muscle of a cow. According to beef quality assurance guidelines, this is no longer recommended when facilities are adequate to allow injection in the muscles of the neck. Extension educators must make sure viewers understand this point.

### 3. No "One-Size-Fits-All" Answer

The video provides introductory information on biosecurity and directs viewers to a Web site with in-depth information and substantial resources to personalize a biosecurity program for individual farmers. Extension educators should note that these guidelines are general recommendations only.

### 4. Supplemental Information Is a "Click" Away

The *Healthy Farms--Healthy Agriculture* resources include an assessment and planning guide, compilation of biosecurity best management practices, resources on specific diseases and disaster planning, and resources for farms hosting school groups. In preparation for using the video, Extension educators should visit <<http://www.uvm.edu/~ascibios>> to explore the entire contents.

## Conclusion

This 20-minute video is a useful tool for Extension educators wanting to provide audiences a better appreciation for the importance of biosecurity in relation to maintaining the health of farm operations and the security of our food supply. Consumers are becoming more concerned about the safety and security of food production, and this video serves as a ground level educational tool for farmers to improve the health of their animals through management.

Although filmed in Vermont, the video has nationwide applicability. It was a national winner in the 2005 communications competition sponsored by the National Association for County Agricultural Agents. *Healthy Farms--Healthy Agriculture: Protecting the Health of Animal Agriculture-An Overview of Dairy Cattle Biosecurity* is available for \$10 in VHS or DVD formats through the University of Vermont Department of Animal Science, (802) 656-2070. Biosecurity is something everyone needs to know in order to promote healthy farms and healthy agriculture.

### Acknowledgments

The author wishes to acknowledge United States Department of Agriculture's Animal and Plant Health Inspection Service and Senator James Jeffords for funding this project. The author is extremely grateful to Workhorse Creative, the farms, and individuals who participated in filming and video production. Finally, thanks go to the student interns, Jen Ather, Mark Murray, and Leah Yandow, who compiled print materials for the initial *Healthy Farms--Healthy Agriculture* project.

## References

Adaska, J., & Kirk, J. (n.d.). Johne's disease in dairy cattle. UC Davis Veterinary Medicine Extension, Retrieved November 30, 2006, from: [http://www.vetmed.ucdavis.edu/vetext/INF-DA/INF-DA\\_JOHNESDISEASE.HTML](http://www.vetmed.ucdavis.edu/vetext/INF-DA/INF-DA_JOHNESDISEASE.HTML)

Kirk, J. H. (1998, August). Contagious mastitis--Can you keep it out of the herd? (Mastitis biosecurity planning). Presented at Eleventh Annual Fall Symposium on Advances in Clinical Veterinary Medicine, University of California, Davis, Davis, CA. Retrieved November 30, 2006, from: [http://www.vetmed.ucdavis.edu/vetext/INF-DA/INF-DA\\_MASTITISKEEPOUT.HTML](http://www.vetmed.ucdavis.edu/vetext/INF-DA/INF-DA_MASTITISKEEPOUT.HTML)

Risk Solutions. (May, 2005). Cost benefit analysis of Foot and Mouth disease controls: A report for DEFRA. DS100/R3 Issue 3. Retrieved November 30, 2006, from: <http://www.defra.gov.uk/footandmouth/pdf/costben.pdf>

Smith, J. M. (Writer/Producer). (2004). *Healthy farms--Healthy agriculture: Protecting the health of animal agriculture—An overview of dairy cattle biosecurity*. [Educational video]. (Available from the University of Vermont, Department of Animal Science, 113 Terrill Bldg., 570 Main St., Burlington, VT 05405)

Smith, J. M., Ather, J., Murray, M., & Yandow, L. (2003). *Healthy farms--Healthy agriculture*. University of Vermont, Department of Animal Science.

Smith, J. M., Ather, J., Murray, M., & Yandow, L. (September, 2003; last modified August 13, 2004). *Healthy farms--Healthy agriculture*. Retrieved November, 2006, from: <http://www.uvm.edu/~ascibios/>

Weersink, A., VanLeeuwen, J. A., Chi, J., & Keefe, G. (2002) Direct production losses and treatment costs due to four dairy cattle diseases. In Proceedings of the 2002 Western Canadian Dairy Seminar, Red Deer, Alberta, Canada. Retrieved November 30, 2006, from: <http://www.wcds.afns.ualberta.ca/Proceedings/2002/Chapter%2005%20Weersink.htm>

*Copyright © by Extension Journal, Inc.* ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the [Journal Editorial Office, joe-ed@joe.org](mailto:joe-ed@joe.org).

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)