

USDA ARS 5th International Biosafety & Biocontainment Symposium: Biorisk and Facility Challenges in Agriculture

February 11-14, 2019
Hilton Baltimore • Baltimore, Maryland



Preliminary Program



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U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS)

5th International Biosafety & Biocontainment Symposium: Biorisk and Facility Challenges in Agriculture

February 11-14, 2019

Registration Desk

Monday 7:00 am - 5:00 pm

Tuesday 7:00 am - 5:00 pm

Wednesday 7:00 am - 5:00 pm

Thursday 7:00 am - 12:00 pm

Opening Reception

The Opening Reception will be held Monday 5:30 pm - 7:00 pm

Poster and Networking Reception

Wednesday 5:30 pm - 7:00 pm

Hotel Information

Hilton Baltimore

401 West Pratt Street

Baltimore, MD 21202

443-573-8700

Fax: 443-683-8841

The room block is available until January 11, 2019 or until the rooms are sold-out.

Exhibit Hall

The Exhibit Hall will be open on Monday from 5:30 - 7:00 pm showcasing the latest in laboratory biosafety products and services during the Opening Reception. The Exhibit Hall will be open on Tuesday and Wednesday from 9:00 am - 4:00 pm.



ABSA International has been approved as a provider of continuing education programs in clinical laboratory science by the American Society for Clinical Laboratory Sciences (ASCLS), Professional Acknowledgment for Continuing Education P.A.C.E.® program.

For each professional development course, contact hours will be based on 60 minutes of instructional time for each P.A.C.E.® contact hour. The maximum number of P.A.C.E.® contact hours to be credited for half-day courses is 3.50 contact hours and for full-day courses is 7.50 contact hours. Attendees have the opportunity to earn up to 16.5 contact hours by attending the entire symposium program. Attendance rosters must be signed in for each attended session that credit is requested for and the P.A.C.E.® certificate of attendance must be validated by ABSA staff at the registration desk on your final day of attendance at the symposium.

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Professional Development Courses

Please visit our website for course availability
<http://arssymposium.absa.org/>

Monday, February 11, 2019

8:00 am - 5:00 pm

1. Scenario-based Agricultural Risk Assessment

Instructors: *John Balog, BS, RBP, U.S. Food and Drug Administration, Silver Spring, MD*
Susan Harper, DVM, DACLAM, DACVPM, U.S. Department of Agriculture, Beltsville, MD
David White, DVM, PhD, RBP, DACVM, U.S. Department of Agriculture, Ames, IA
Bruce Whitney, PhD, Texas A&M University System, College Station, TX

The instructors will review general concepts and considerations for assessing risks encountered in research programs that involve animals, plants, pathogens, pests, facilities, equipment, and work practices relevant to agriculture. The focus of the course will be on hazard identification and risk assessment (qualitative and quantitative), with discussion on how the strategic use of management practices can be used to minimize risks. Interactive exercises, specifically designed to incorporate unique challenges and hazards routinely encountered in agricultural research programs, will be used to guide attendees through the risk assessment process and illustrate key factors that influence selection of biocontainment and biosecurity measures to protect workers, the environment, and public health. The use of real-world case studies will provide opportunities for discussion and exchange of ideas that reinforce practical application of knowledge, information, and concepts covered through formal presentations, and an attendee's actual experience in identifying and assessing research-related risks. Scenarios will be provided for discussion and assessment that focus on the critical aspects of agricultural risk assessment that differ from other described processes: the potential economic impact on local or regional animal and plant morbidity and mortality; and the international trade implications of disease presence in the country.

Objectives:

- Construct risk assessments for working with agricultural agents and/or animals at various levels of biocontainment, including foreign animal (i.e., transboundary) diseases, in limited resource areas, and contrast with considerations for resource-rich areas
- Develop practices and procedures appropriate for mitigating the risk of working with agriculturally-important agents and/or animals infected with various pathogens
- Assess a facility's ability to contain the agriculturally important agents or animals infected with various pathogens (ABSL1-4, BSL-3Ag, BL1-4P)

Suggested Background: Fundamentals of Biosafety, Risk Assessment, Biosafety Level 3-Design and Operations, Principles & Practices of Biosafety

Target Audience: Biosafety Professionals, Animal Caretakers, All Safety Professionals

Audience Level: All levels

8:00 am - 12:00 pm

2. Animal Disease Response Training: Kansas State University National Agricultural Biosecurity Center

Instructors: *Craig Beardsley, MS, Kansas State University, Manhattan, KS*
Ken Burton, DVM, Kansas State University, Manhattan, KS

It is estimated that more than 100,000 veterinary and non-veterinary responders would be needed over time in a large-scale Foot and Mouth Disease outbreak. USDA/APHIS statistics show that over 3,200 state, federal, and contracted personnel were involved in just the first six months of response to the recent Highly Pathogenic Avian Influenza outbreak. These numbers reflect a serious challenge to provide adequate veterinary and non-veterinary personnel trained in animal disease response. Individuals in the animal health industry (feedlot cowboys, livestock producers, rendering and packing plant employees and extension

personnel), animal health companies, and local emergency response personnel, if properly trained, can provide a valuable source of qualified animal disease response personnel in the event of a high-consequence transboundary animal disease outbreak. This course provides information needed to minimize effects of such an outbreak. Instructors will focus on best practices and safety issues associated with an agriculture emergency, including quarantine, biosecurity, euthanasia and disposal, use of personal protective equipment, and cleaning and disinfection. This course also assists in increasing coordination of responders across jurisdictions, lines of authority, and disciplines by examining the integration of response efforts.

Objectives:

- Explain the need for pre-planning and animal disease response training
- Restate the best practices for responding to an agricultural disease emergency
- Describe the needs and actions necessary to ensure coordination between responders from various disciplines, agencies and governmental levels

Suggested Background: Familiarity with animal health industry

Target Audience: Responder groups including, but not limited to, Emergency Management Agencies, Emergency Medical Services, Veterinarians, Agriculture Emergency Responders, Fire Fighters, Law Enforcement, Producers, Agricultural Industries, Public Health, Public Works, Environmental Agencies, Elected Officials

Audience Level: Basic

8:00 am - 12:00 pm

3. Biosecurity 101

Instructors: Ryan Burnette, PhD, Merrick & Company, Greenwood Village, CO

Kort Dickson, Perdue Farms, Inc., Salisbury, MD

Stephen Goldsmith, DVM, Federal Bureau of Investigation, Washington, DC

Kelsie Judd, Merrick & Company, Greenwood Village, CO

Lauren Richardson, DVM, DACVPM, Merrick & Company, Greenwood Village, CO

The field of biosafety has evolved from a primary focus on biomedical research intended to reduce exposure of laboratory workers, their communities, and the environment to infectious biological risks to supporting the activities of a wide variety of biological, clinical, veterinary, industrial, and diagnostic laboratories around the world. As the threat landscape directed at laboratories and biological assets has changed, the need to secure them from outsider and insider threats has led to creation of a parallel, but distinct, practice of biosecurity. This course is intended to describe biosafety and biosecurity and to define the fundamental differences between the knowledge and analytical skills required of biosafety (risk-based) and biosecurity (threat-based) assessments.

Objectives:

- Describe the elements of risk-based (biosafety) and threat-based (biosecurity) programs fundamental to implementing a comprehensive biorisk management program
- Recognize threats and vulnerabilities to consider when protecting laboratory materials from unauthorized access, loss, theft, misuse, diversion, or intentional release
- Restate and use the five pillars of biosecurity (personnel, transport, material, physical, and information) to recognize gaps and opportunities for biosecurity program improvement

Suggested Background: None

Target Audience: Professionals in biosafety, security, and laboratory management and practice

Audience Level: Basic

8:00 am - 12:00 pm

4. Risks of Deferred Maintenance in High-Containment Facilities

Instructors: Miguel Grimaldo, University of Texas Medical Branch, Galveston, TX

John Henneman, MS, RBP, Kansas State University, Manhattan, KS

Many biocontainment research facilities have limitations with funding and budgets for maintenance which are often the first to be cut. Sometimes, necessary maintenance needs are postponed or not done at all. This course will discuss ways to sustain maintenance to avoid running equipment to a failure point, options and lessons learned in prioritizing what equipment to fix first, and examples of how value engineering can come back to haunt you. Long-term planning can be a challenge without fixed budget allocations. Information on defining and starting a maintenance plan will be shared, along with suggestions for creating a culture of

responsibility and ownership for the maintenance staff. Discussions will include options to consider when creating priorities, knowing the critical equipment, estimating some type of budget, and establishing a facility risk assessment to maintain safe operations.

Objectives:

- Describe the consequences of postponing critical maintenance
- Identify the basic steps in forming a maintenance plan
- Define the critical equipment for your facility

Suggested Background: None

Target Audience: Biosafety Professionals, Facility Managers, Facility Engineers

Audience Level: Basic

1:00 pm - 5:00 pm

5. Implementing Biosecurity Solutions

Instructors: Ryan Burnette, PhD, Merrick & Company, Greenwood Village, CO

Kort Dickson, Perdue Farms, Inc., Salisbury, MD

Stephen Goldsmith, DVM, Federal Bureau of Investigation, Washington, DC

Kelsie Judd, Merrick & Company, Greenwood Village, CO

Lauren Richardson, DVM, DACVPM, Merrick & Company, Greenwood Village, CO

Understanding of the tenets of biosecurity is vital to develop practical strategies and solutions at the facility and organizational level. Awareness of global health security has led to increased international development efforts to improve laboratory capacity; this presents unique challenges for biosecurity. This course will focus on practical strategies for implementing basic biosecurity in a variety of environments, including research, agriculture, industry, and international development.

Objectives:

- Recognize the agencies and organizations with stakeholder roles in biosecurity
- Define practical strategies for integrating functional security within biorisk management using an Integrated Security Management Plan (ISP) at the facility level

Suggested Background: Biosecurity 101 (course 1 described above) or similar

Target Audience: Professionals in biosafety, security, laboratory management and practice, life sciences policy, and international development

Audience Level: Basic/Intermediate

1:00 pm - 5:00 pm

6. Introduction to Strategic Leadership Principles for Biorisk Management

Instructors: Joseph Kanabrocki, PhD, CBSP, University of Chicago, Chicago, IL

Joseph Kozlovac, MS, RBP, CBSP, SM(NRCM), U.S. Department of Agriculture, Beltsville, MD

Neal Woollen, DVM, PhD, National Strategic Research Institute, University of Nebraska, Omaha, NE

This course will provide attendees the opportunity to explore strategic elements of microbiological and biomedical laboratory operations that impact, and are impacted by, biosafety and biosecurity decision making. Attendee participation will be maximized during instructor-led discussions focused on the learning objectives below.

Objectives:

- Describe today's biosafety and biosecurity strategic environment and why it matters
- Discuss what it means to be a high-reliability organization for biosafety and biosecurity
- Identify why critical thinking and systems thinking matter
- Recognize how to manage strategic risk and the challenges of organizational transformation
- Illustrate the relevance of managing human and social capital
- Define what is important to strategic communications and why it matters

Suggested Background: None

Target Audience: Biosafety professionals, all levels of leaders at biocontainment and life sciences laboratories, research scientists

Audience Level: Intermediate

1:00 pm - 5:00 pm

7. Waste Management

Instructors: *Eilyn Fabregas, MS, RBP, U.S. Department of Agriculture—APHIS, Riverdale, MD*
Gerald Houvener, MPH, CIH, CSP, U.S. Department of Agriculture—APHIS, Riverdale, MD
Daniel Weissman, PE, CHMM, CSP, U.S. Department of Agriculture—APHIS, Riverdale, MD

Attendees will learn various laboratory or facility biological, chemical, radioactive, waste management strategies and technologies available both in the laboratory setting, final disposal, and anywhere in between (e.g., temporary storage, shipping and transport) while considering location-specific needs and resources. Readily-available U.S. and international regulations and/or guidance documents, such as but not limited to: International Air Transport Association (IATA) Dangerous Goods Regulations, WHO Laboratory Biosafety Manual, CWA 15793 Laboratory Biorisk Management, FAO Laboratory Mapping Tool-Safety Module, and *Biosafety in Microbiological and Biomedical Laboratories (BMBL)* as they relate to waste management will be discussed.

Objectives:

- Identify types of waste and available waste management strategies, including treatment and transportation options, for the laboratory/facility setting
- Communicate the necessity of the program
- Identify the value in obtaining stakeholder buy-in

Suggested Background: None

Target Audience: Biosafety Officers, Safety Professionals, Environmental Management and Waste Management Professionals, Principal Investigators, Facility Managers

Audience Level: Basic/Intermediate

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Georgetown University Medical Center

**5th International Biosafety & Biocontainment Symposium:
Biorisk and Facility Challenges in Agriculture**

Symposium Program

Monday, February 11, 2019

5:30 - 7:00 pm Opening Reception

Tuesday, February 12, 2019

7:00 am - 5:00 pm Registration

9:00 am - 4:00 pm Exhibits

8:00 - 8:15 am **USDA ARS Welcome**
Joseph Kozlovac, MS, RBP, CBSP, SM(NRCM), U.S. Department of
Agriculture, Beltsville, MD

8:15 - 8:30 am **ABSA International Welcome**
Dee Zimmerman, ABSA International President, Galveston, TX

Session I **Managing Risks**
Moderator: Bruce Whitney, PhD, Texas A&M University System, College
Station, TX

8:30 - 9:15 am **Keynote: A Global Perspective on Biorisk and Facility Challenges in
Changing Agricultural Landscapes**
Henk Jan Ormel, DVM, Food and Agriculture Organization of the United
Nations, Rome, Italy

9:15 - 9:45 am **Horse Pox**
Victoria Olson, PhD, Centers for Disease Control and Prevention, Atlanta, GA

9:45 - 10:15 am Break in Exhibit Hall

Mini Session **Governance Updates**

10:15 - 10:25 am **BMBL Update**
Paul Meechan, PhD, RBP, CBSP, Centers for Disease Control and Prevention,
Atlanta, GA

10:25 - 10:45 am **ISO 35001**
Patricia Olinger, JM, RBP, Emory University, Atlanta, GA

10:45 - 10:55 am **USDA ABC**
Joseph Kozlovac, MS, RBP, CBSP, SM(NRCM), U.S. Department of
Agriculture, Beltsville, MD

10:55 - 11:15 am **Questions & Answers**

11:15 - 12:45 pm Lunch in Exhibit Hall

Session II	Facilities: The Life Cycle of Risk Moderator: Dee Zimmerman, Galveston, TX
12:45 - 1:15 pm	Contract Mechanisms for Containment Labs Bradley Andersen, RA, Merrick & Company, Greenwood Village, CO
1:15 - 2:25 pm	Roundtable: Pros/Cons of Design Methodologies Panelists: <i>Principal Investigator</i> Allison Ficht, PhD, Texas A&M University, College Station, TX <i>Project Manager</i> J. Brett Cumpton, AIA, Texas A&M University, College Station, TX <i>Biosafety Officer</i> Bruce Whitney, PhD, Texas A&M University System, College Station, TX <i>Builder</i> Michael Briselden, The Whiting-Turner Contracting Company, Atlanta GA <i>Commissioning Agent</i> Paul Langevin, Merrick & Company, Kanata, Ontario, Canada
2:25 - 2:55 pm	Risks of Deferred Maintenance John Henneman, MS, RBP, Kansas State University, Manhattan, KS
2:55 - 3:25 pm	Challenges in Certifying Equipment Dave Bressler, MS, CBSP, Centers for Disease Control and Prevention, Atlanta, GA
3:25 - 3:55 pm	Break in Exhibit Hall
3:55 - 4:15 pm	Factoring Biorisk Management into Sustainable Design Heather Sheeley, MS, Public Health England, Porton Down, Salisbury, United Kingdom
4:15 - 4:35 pm	Unique Risk of Large-scale/Pilot Plant Design Brian Petuch, RBP, CBSP, Merck & Co, Inc., West Point, PA
4:35 - 4:55 pm	Renovation of an Aging High-Containment Greenhouse Reid Frederick, PhD, U.S. Department of Agriculture, Fort Detrick, MD Henry Hays, PE, U.S. Department of Agriculture, Beltsville, MD
4:55 - 5:15pm	PIADC Decommissioning Planning and Implementation Christopher Schutta, PhD, U.S. Department of Homeland Security, Greenport, NY
5:15 - 5:30 pm	Question and Answer

Wednesday, February 13, 2019

7:00 am - 5:00 pm	Registration
9:00 am - 4:00 pm	Exhibits
Session III	Disease Agents: The Drivers of Risk Moderators: Robert Ellis, PhD, CBSP, Colorado State University, Fort Collins, CO Julie Johnson, PhD, CBSP, Kansas State University, Manhattan, KS
8:00 - 8:30 am	Foot and Mouth Disease Control Challenges <i>Momtaz Wasfy, PhD</i> , Middle East for Veterinary Vaccines, El-Sharkya, Egypt
8:30 - 9:00 am	Rabies Mathew Muturi, DVM, Zoonotic Disease Unit, Nairobi, Kenya
9:00 - 9:30 am	<i>Coxiella burnetii</i> and Q Fever: Challenges & Opportunities Stephen White, PhD, U.S. Department of Agriculture, Pullman, WA
9:30 - 10:00 am	Break in Exhibit Hall
10:00 - 10:30 am	Leptospirosis Michael Lappin, PhD, Colorado State University, Fort Collins, CO
10:30 - 11:00 am	Emerging Crop Diseases and Food Security James Stack, PhD, Kansas State University, Manhattan, KS
11:00 - 11:30 am	Occupational Health Laboratory to Field Lee Wugofski, MD, MPH, FACOEM, U.S. Department of Health and Human Services, San Francisco, CA
11:30 - 1:00 pm	Lunch in Exhibit Hall and Poster Session
1:00 - 1:30 pm	Weisella Talk Tim Welch, PhD, U.S. Department of Agriculture, Kearneysville, WV
1:30 - 3:00 pm	Panel: Risk Assessment Scenarios Alex Chaskopoulou, PhD, European Biological Control Lab—U.S. Department of Agriculture, Thessaloniki, Greece David White, DVM, PhD, RBP, DACVM, U.S. Department of Agriculture, Ames, IA Bruce Whitney, PhD, Texas A&M University System, College Station, TX Susan Harper, DVM, DACLAM, DACVPM, U.S. Department of Agriculture, Beltsville, MD Dee Zimmerman, Galveston, TX
3:00 - 3:30 pm	Break in Exhibit Hall and Poster Session
Mini Session	Risk Management & Communication Moderator: Lindsey Childers, U.S. Department of State, Washington, DC
3:30 - 4:00 pm	Food Safety & Food Defense Jessica Pulz, U.S. Department of Agriculture—Food and Safety Inspection Service, Washington, DC

4:00 - 4:30 pm	Community Outreach Risks Connie Holubar, MBA, University of Texas Medical Branch, Galveston, TX
4:30 - 5:30 pm	Gene Editing/Gene Therapy and Dealing with Regulatory Pathways Biotechnology Regulatory Service (BRS)—U.S. Department of Agriculture Michael Firko, PhD, U.S. Department of Agriculture, Riverdale, MD
4:30 - 4:45pm	
4:45 - 5:00 pm	Center for Veterinary Medicine (CVM)—U.S. Food and Drug Administration Laura Epstein, U.S. Food and Drug Administration, Rockville, MD
5:00 - 5:15 pm	Center for Veterinary Biologics (CVB)—U.S. Department of Agriculture Paul Hauer, DVM, PhD, U.S. Department of Agriculture—APHIS, Ames, IA
5:15 - 5:30 pm	Question and Answer
5:30 - 7:00 pm	Poster and Networking Reception

Thursday, February 14, 2019

7:00 - 11:00 am	Registration
8:00 - 8:10 am	Announcement of Poster Awards Hank Parker, PhD, Georgetown University, Washington, DC
Session IV	Arthropod-borne Diseases and Pests Moderator: Paul Meechan, PhD, RBP, CBSP, Centers for Disease Control and Prevention, Atlanta, GA
8:10 - 9:10 am	Keynote: Biorisk Management Issues Relative to Sterile Fly Production Facilities Gwen Keller, PhD, U.S. Department of Agriculture—APHIS, Pacora, Panama
9:10 - 9:40 am	Novel Control Strategies for the Management of Arthropod Vectors of Public Health Importance Alex Chaskopoulou, PhD, European Biological Control Lab—U.S. Department of Agriculture, Thessaloniki, Greece
9:40 - 10:10 am	African Swine Fever—Global Gap Analysis Douglas Gladue, PhD, U.S. Department of Agriculture, Orient Point, NY
10:10 - 10:40 am	Cattle Tick Fever Javid Kashefi, BcS, European Biological Control Lab—U.S. Department of Agriculture, Thessaloniki, Greece Beto Perez de Leon, PhD, U.S. Department of Agriculture, Kerrville, TX
10:40 - 11:00 am	Break
11:00 - 11:30 am	Citrus Greening Eduardo Chumbinho de Andrade, PhD, Brazilian Agricultural Research Corporation—Embrapa Cassava and Fruits, Cruz das Almas, BA, Brazil
11:30 - 12:00 pm	Hot Topic Speaker: TBD
12:00 pm	Closing Comments & Adjourn Joseph Kozlovac, MS, RBP, CBSP, SM(NRCM), U.S. Department of Agriculture, Beltsville, MD

United States Department of Agriculture, Agricultural Research Service 5th International Biosafety & Biocontainment Symposium: *Biorisk and Facility Challenges in Agriculture*

**Hilton Baltimore • Baltimore, Maryland
February 11-14, 2019**

Please print or type.

Name _____

Institution _____

Address _____

City _____ State _____ Zip _____

Phone _____

E-mail _____

Please list any special dietary requirements: _____

Registration Fees (circle the course fees you are registering) **Through 1/14** **1/15 to Onsite**

ARS Symposium (Tuesday through Thursday) \$680 \$735
(Breaks, Tuesday and Wednesday lunches, Opening Reception, and Poster Reception are all included.)

Single Day Registration (Tuesday or Wednesday) \$280 \$300

Single Day Registration (Thursday) \$150 \$170

Professional Development Courses on Monday, February 11, 2019

Full-day Course

Scenario-based Agriculture Risk Assessment \$510 \$560

Morning Courses

Animal Disease Response Training \$300 \$350

Biosecurity 101 \$300 \$350

Risks of Deferred Maintenance in High-Containment Facilities \$300 \$350

Afternoon Courses

Implementing Biosecurity Solutions \$300 \$350

Introduction to Strategic Leadership Principles for Biorisk Management \$300 \$350

Waste Management \$300 \$350

Additional Tickets

Lunch \$45 \$50

Opening Reception \$60 \$76

Poster and Networking Reception \$90 \$100

Total Amount \$ _____

Credit Card (circle one): Visa MasterCard AmEx

Credit Card # _____ Exp Date _____

Signature _____ Cardholder Name _____

Registrations are not complete until payment is received. Purchase orders are not accepted. Check must be made payable to "ABSA International" and bank drafted in U.S. dollars or it will be returned. Cancellations postmarked by December 21, 2018—85% refund. Cancellations postmarked after December 21, 2018—no refund.

Send registration form and payment to:

ABSA International • 1200 Allanson Road • Mundelein, IL 60060-3808
866-425-1385 • 847-566-4580 (fax) • info@absa.org • arssymposium.absa.org



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