



# Societal Security and Civil Defense with the Agricultural and the Food Chain Sector Study Trip

Presented by the Western Institute for Food Safety and Security (WIFSS), in conjunction with the Swedish Defence University, Institute for National Defence and Security Policy Studies (IHT), Swedish Board of Agriculture, National Food Agency, National Veterinary Institute, and the Swedish University of Agricultural Sciences

University of California, Davis  
Western Institute for Food Safety & Security  
Gladys Valley Hall  
October 10 – 13, 2017

## CONFERENCE AGENDA

### Tuesday – October 10 Room 1023 Gladys Valley Hall

8:00 a.m.	Vans Pick-up Guests	<i>Hyatt Place, UC Davis</i>
8:30 – 8:45 a.m.	Welcome and Brief Introductions	<i>Dr. Bennie Osburn, Director, Outreach &amp; Training, WIFSS</i>
8:50 – 10:00 a.m.	WMD Awareness Training	<i>Sheldon Fung, FBI, Special Agent Bomb Tech, WMD Coordinator</i>
10:00 – 10:15 a.m.	BREAK	
10:15 – 11:15 a.m.	Agroterrorism	<i>Derek F. DeWaal, Intelligence Analyst Weapons of Mass Destruction/Domestic Terrorism/Fusion Center</i>
11:15 – 12:00 Noon	APHIS Roles and Responsibilities	<i>Todd Smith, USDA, APHIS</i>
12:00 Noon	LUNCH	
1:00 p.m.	Travel to Thurman Laboratory	
1:30 p.m. – 2:30 p.m.	Tour of California Animal Health & Food Safety Laboratory	<i>Dr. Pam Hullinger, Director, CA Animal Health &amp; Food Safety Laboratory</i>
2:30 p.m.	Travel to Hutchison Hall	
3:00 p.m.– 4:00 p.m.	Plant Pathology Program Activities	<i>Dr. Neil McRoberts, Associate Professor, Director, Western Plant Diagnostic Center</i>
4:00 p.m.	Return to Hotel	

### Wednesday – October 11 Room 2030 Gladys Valley Hall

8:00 a.m.	Vans Pick-up Guests	<i>Hyatt Place, UC Davis</i>
8:30 a.m.	Review & Summarize Tuesday's Experience	<i>Group Discussion</i>
9:00 a.m. – 10:15 a.m.	Threat Assessment/InfraGard	<i>Brian Banning, President, InfraGard Sacramento Members Alliance</i>
		<i>Kimberly Pratt, Executive Director InfraGard National Members Alliance</i>
10:15 a.m.	BREAK	

10:30 a.m. – 11:15 a.m.	Agroterrorism and Attendant Food Sabotage	<i>Raymond Zilinskas, Director, Chemical &amp; Biological Weapons Nonproliferation Program, Middlebury Institute of International Studies at Monterey</i>
11:15 a.m. – 12:00 Noon	National Incident Management System Overview	<i>David Goldenberg, Preparedness Training, WIFSS</i>
12:00 Noon	LUNCH	
1:00 p.m. – 3:00 p.m.	Horizon Scanning: Ani-Bio Threat Review	<i>Dr. Rickard Knutsson, Director of Security, National Veterinary Institute</i>
3:00 p.m.	Fika American Style	
3:15 p.m. – 5:00 p.m.	Horizon Scanning Continues Davis Farmers Market	<i>Group Discussion Map to be provided</i>

## Thursday – October 12 Room 2030 Gladys Valley Hall

8:00 a.m.	Vans Pick-ups Guests	<i>Hyatt Place, UC Davis</i>
8:30 a.m. – 9:00 a.m.	Review & Summarize Wednesday's Experience	<i>Group Discussion</i>
9:00 a.m. – 9:45 a.m.	Adult Education Concepts	<i>Heather Johnson, Instructional Systems Designer, WIFSS</i>
9:45 a.m.	BREAK	
10:00 a.m. – 11:00 a.m.	FMD Modeling	<i>Dr. Tim Carpenter, Professor Emeritus</i>
11:00 a.m. – 12:00 Noon	California's Pest Prevention System	<i>David Pegos, Special Assistant, Calif, Department of Food &amp; Agriculture</i>
12:00 Noon	LUNCH	
1:00 p.m. – 3:00 p.m.	Define GAPS & Needs for Swedish Food & Ag System	<i>Group Discussion</i>
3:00 p.m.	Fika American Style	
5:30 – 7:30 p.m.	Reception and Dinner	<i>To Be Announced</i>

## Friday – October 13 Room 2030 Gladys Valley Hall

8:00 a.m.	Vans Pick-up Guests	<i>Hyatt Place, UC Davis</i>
8:30 a.m. – 9:00 a.m.	Review & Summarize Thursday's Experience	<i>Group Discussion</i>
9:00 – 10:00 p.m.	Cooperative Agreement/Faculty Exchange	<i>Dr. Bennie Osburn, Director, Outreach &amp; Training, WIFSS</i>
10:00 a.m.	BREAK	
10:15 – 12:00 Noon	Wrap Up/Future Efforts/Conference	<i>Group Discussion</i>
12:00 Noon	LUNCH	
1:00 p.m.	Guests Depart	

### Brian Banning

Lieutenant Brian Banning is currently a Governors Appointee serving in the Infrastructure Protection unit of the California Governor's Office of Emergency Management (CalOES) working on statewide issues within their Critical Infrastructure Protection division. Prior to this assignment, he was a Senior Analyst with Scientific Research and Applications International (SRA). He also served as Assistant Commander of the Sacramento Regional Terrorism Threat Assessment Center (RTTAC), a multi-agency intelligence fusion center that supports the casework of the Federal Bureau of Investigation led Joint Terrorism Task Force at the Top Secret level. At the RTTAC he also worked on Critical Infrastructure Protection matters with the California Office of Homeland Security conducting threat and vulnerability assessments and enhancing security on selected critical infrastructure sites.

### Catherine Bernstein

Catherine Bernstein is a contributing writer and editor for HS-Community.org, a homeland security practitioners' network. In 2015, having served 27 years as an attorney for state and local government, she retired as Senior Counsel for the California Governor's Office of Emergency Service. In 2014 she earned a Master of Arts in Security Studies at the United States Naval Postgraduate School, Center for Homeland Defense and Security. She earned a Juris Doctor from Southwestern University, School of Law, in 1986. She holds a Bachelor of Science in Human Resource Management/Business Administration from California State University Northridge.

### Tim Carpenter

Prof. Tim Carpenter is Professor Emeritus of the School of Veterinary Medicine, UC Davis, and Institute of Veterinary and Animal Biomedical Sciences, Massey University, Palmerston North, New Zealand. His areas of teaching and research include epidemiologic modeling, spatial epidemiology, animal health economics, and risk analysis. His animal species and disease focus is equally as diverse as the methods used to study them, including aquatic, wildlife, companion animals and livestock and bacterial, viral, protozoan infections and non-infectious diseases, from African swine fever to West Nile virus. Since 2000, he has focused on modeling the spread and control of FMD in the US as well as Europe, South America, and East and Southeast Asia.

### Derek F. DeWaal

Derek has been an Intelligence Analyst with the Sacramento Field Office of the Federal Bureau of Investigation for 13 years. In that time, he has worked white collar crime, international terrorism, counterintelligence, domestic terrorism, and weapons of mass destruction matters. Prior to his work with FBI, Derek was a research program manager for the California Department of Corrections. As a graduate research assistant, Derek has 17 publications in medical and behavioral science journals (fibromyalgia diagnosis and treatment; tuberculosis surveillance and treatment in Russia; adjustment of Russian healthcare system from communism to insurance-based). Derek has a BS in Psychology, a BS in Human Development, an MS in Behavioral Analysis, and an MPH in Public Health/Epidemiology.

### Josefine Elving

Dr Josefine Elving is a microbiologist employed at the Department of Chemistry, Environment and Feed Hygiene with the National Veterinary Institute, Uppsala. She received her PhD in Microbiology from the Swedish University of Agricultural Sciences in 2012. For the last 5 years, Dr Josefine Elving has been working as a scientist and risk assessor within the field of health related environmental microbiology and feed hygiene.

### Sheldon Fung

Special Agent Bomb Technician (SABT) Sheldon Fung has worked for the Federal Bureau of Investigation for 19 years. He was first stationed in Los Angeles and worked Weapons of Mass Destruction, Counterterrorism and Counterintelligence for his first 8 years during which he was awarded the Attorney General Award for his work on an espionage case. He was transferred to the Sacramento Division of the FBI in 2006, where he currently works on the Domestic Terrorism squad. He has 18 years of experience as a Hazmat Specialist and 12 years of experience as a bomb tech. He is currently the WMD Coordinator and Special Agent Bomb Technician for the Sacramento Division of the FBI. SABT Fung has a Bachelors of Science degree in Biochemistry from the University of California at Davis, and a Masters degree from Indiana University of Pennsylvania. Prior to coming to the FBI, Fung worked as a chemist and a police officer.

## David Goldenberg

David Goldenberg is an instructor in food safety with the Western Institute for Food Safety and Security. He contributes to food safety projects for the U.S. Food and Drug Administration (FDA) Integrated Food Safety System (IFSS). He is involved in the produce investigations course and is working on integrating video and table top exercises to enhance adult learning principles. He teaches the Agroterrorism Preparedness Training for Frontline Responders; a six course food safety/security curriculum sponsored by the US Department of Homeland Security (DHS).

## Sebastian Hakansson

Sebastian Hakansson earned his MSc. Degree in Microbiology at Umeå University 1992. He later earned his Ph.D degree in Cell and Molecular Biology at Umeå University in 1996 and are since 2007 Associate Professor/Senior Lecturer in Microbiology at Swedish University of Agricultural Science.

Sebastian work now as a Senior Researcher including 50% research commission within the Centre for Biological Control at SLU with focus on formulation and stabilization of biocontrol organisms and has a long experience of managing and mentoring doctoral students. He has previously worked as EU Scientific Investigator and Researcher and Research Program Director etc.

## Lars Hedstrom

Lars Hedstrom is Director General of the Institute for National Defense and Security Policy Studies, Swedish National Defense University. He helped establish the Crisis Management Coordination Secretariat at the Prime Minister's Office while serving as Deputy Director. He was previously with the Swedish Emergency Management Agency (SEMA) as Deputy Director General. Before that he held the position as Deputy Director General of the Swedish Rescue Services Agency. In 2000, he was seconded to NATO headquarters, Civil Emergency Planning Directorate. He is a former Chief Fire Officer.

## Pamela Hullinger

Dr. Pamela Hullinger, former director of the Large Animal Clinic at the UC Davis Veterinary Medical Teaching Hospital, is the Director of the California Animal Health and Food Safety Laboratory System. Dr. Hullinger has foreign animal disease experience including working in the United Kingdom as part of the effort to control the Food and Mouth Disease outbreak of 2001. Her interests include food safety and security, as well as international veterinary medicine and global ecosystem health.

## Mats Johansson

Dr. Mats Johansson is a team leader with at the National Food Agency, Uppsala. He completed his M.D. in Agronomy his doctoral degree in Microbiology at the Swedish University of Agricultural Sciences. He worked for a period of three years at the National Veterinary Institute before his present position at the National Food Agency. Dr. Johansson has more than ten years of experience in the area of risk assessment and crisis management with focus on food and drinking water.

## Heather Johnson

Heather Johnson is an instructional systems designer and educational specialist at WIFSS. She oversees the instructional design component of WIFSS training and educational projects in accordance with certification standards that meet local, state and federal agency requirements. She designs blended - learning educational materials specifically using principles of adult education.

## Haralampos Keremidis

Haralampos Keremidis is advisor for contingency planning and project manager for the Swedish Board of Agriculture. Keremidis is a political scientist and historian, and is specialized in security policy, threat analysis and assessment. Keremidis has several years of experience working with issues regarding security, security policy and project management. Keremidis is project manager for the project *Societal Security and Civil Defense within the Agricultural and Food chain sector* and has worked in several of the working groups within the project AniBioThreat. Keremidis has published articles on agroterrorism in peer review journal.

## Rickard Knutsson

Dr. Rickard Knutsson is director of the Security Department at the National Veterinary Institute (SVA), Uppsala, Sweden and coordinator /project director of AniBioThreat. Dr. Knutsson has a scientific background in bacteriology, molecular biology and biosecurity and has worked as a crisis management coordinator for the last five years at SVA. He was commissioned by the Swedish Ministry of Foreign Affairs to participate as an Expert Member State Delegate at the Biological and Toxic Weapons Convention, United Nations, Geneva. He has been the chairman of the Swedish Cooperation Area Hazardous Substances, the Swedish Forum for Biopreparedness, and the Swedish Laboratory Response Network.

## Anders Kvarnheden

Anders Kvarnheden is a Professor in Plant Virology at Department of Plant Biology at Swedish University of Agricultural Sciences. He is also visiting Professor at Estonian University of Life Sciences. He held his doctoral degree in 1994 on Physiological Botany The nuclear genome of Norway spruce. Anders has been both main supervisor and deputy supervisor to doctorates. He has published 49 articles in international peer-reviewed scientific journals and 19 other publications (book chapters, popular science etc). He has also worked with several special commissions, for example reviewer of grant applications for European Commission, National Science Foundation and editor, Plant Pathology.

## Neil McRoberts

Neil McRoberts is an associate professor and Director of the "Western Plant Diagnostic Network". His specific areas of interest are plant disease epidemiology, systems modeling and analysis, bio-economic analysis of plant diseases. In his role as Director of the Western Plant Diagnostic Network, he coordinates efforts with four other Programs in the US supported by USDA to address invasive diseases of plants and re-emergence of local disease entities. The program covers much of Western US.

## Lennart Melin

Lennart Melin is since 1987 a Veterinary surgeon and has been an employee at the National Veterinary Institute since 1994. He has a scientific background in bacteriology and has a dissertation named "Weaning in Pigs with a Special Focus on the Intestinal Health". He has been working in several departments at SVA: Dept. of Animal Health and antimicrobial strategies, Dept. of Bacteriology, Dept. of Disease control and Epidemiology and Dept. of Business Support.

## Susanna Melin

Susanna Melin is a course coordinator of the Institute for National Defence and Security Policy Studies, Swedish National Defence University. She holds a Bachelor degree in political science with an emphasis on crisis management and a master degree political science with emphasis on security policy from Swedish National Defence University. She has previously worked with security in the private sector. For the last three years she worked as a research assistant and worked with education of military students and research projects at the Air Operations Section, Swedish National Defence University.

## Catrin Molander

Dr. Catrin Molander is head of the contingency unit, Swedish Board of Agriculture. Molander has a PhD in medicine 2001, and was a laboratory manager in genetics, and head of feed and animal products, before heading the crisis management and contingency planning unit. Her interest and experience is in crisis management, leadership, crisis communication, strategic contingency planning and security issues, all within the sector of animal health, plant health, and feed and farming/primary production.

## Jim Nygren

Jim Nygren works at The Department of Plant Biology at the Swedish University of Agricultural Sciences (SLU) in Uppsala. He earned his PhD in plant breeding at Department of Plant Biology at SLU 2016 with specialization in plant breeding: Response to Wheat dwarf virus in wild and domesticated Wheat. He has held several positions as research assistant and teaching assistant at SLU and supervisor of student for undergraduate project in plant virology.

## Bennie Osburn

Dr. Bennie Osburn is Director of Outreach and Training at the Western Institute for Food Safety and Security. He is Dean Emeritus of the School of Veterinary Medicine, UC, Davis. Dr. Osburn's research has focused on infectious diseases of

livestock, zoonotic diseases, including foodborne pathogens, and the ecology of infectious agents. He is interested in applying a One Health approach to food safety.

## Michael Payne

Dr. Michael Payne is a researcher and outreach coordinator at WIFSS. Dr. Payne has worked as a veterinarian in extension, academics and private practice. He is director of the California Dairy Quality Assurance Program, an industry, academic regulatory partnership which promotes the health and welfare of livestock, consumers and the environment through outreach, education and research.

## David Pegos

David Pegos is the Special Assistant, Plant Division, responsible for division communication activities including strategic planning, crisis communications, media relations, management of several websites, Public Information Officer (PIO) duties, outreach materials, communicating to the public regarding our eradication programs and elected official communications. Mr. Pegos has 20+ years of experience in public relations, community outreach, public policy and public education. He has worked in the California State Legislature as Legislative Director to both a California State Assembly member and State Senator and formerly appointed Deputy Secretary of Communications and External Affairs for the California Department of Food and Agriculture. Throughout his career, Mr. Pegos has conducted numerous public outreach campaigns county, state and nationwide. He manages the Firewood outreach campaign as well as the National Don't Pack A Pest campaign. Mr. Pegos is currently the Executive Director of the California Invasive Species Advisory Committee (CISAC), Agency Liaison for the Invasive Species Council of California (ISCC), Founding member of the California Firewood Taskforce, Duty Officer Liaison with the Governor's Office of Emergency Services and CDFA Native American liaison.

## Kimberly Pratt

## Todd Smith

## Thomas Svensson

Thomas Svensson Assistant Head of District Veterinary Organization since 2007. He became a licensed veterinarian 1980 and has since then held several positions within his expertise. He has during these years also worked as chairman of the livestock section 1998-1999 and 2003-2004 (Swedish Veterinary Society). He has also been part of the Board of Agriculture associated epiteam, a rapid reaction force and position as crisis manager during salmonella outbreaks etc.

## Malin Wester

Malin Wester is an advisor at the National Food Agency in Uppsala, Sweden. She studied International Business and Economics at Umeå University. Thereafter she worked 15 years as a project manager at ICA AB, Sweden's largest food retailer, mainly in the fields of supply chain management and business development. Since 2015, she has worked with risk assessment and crisis management at the National Food Agency, focusing on food security and building a public-private partnership.

## Beth Young

Beth Young Beth earned Bachelor of Science in Biology at University of Guelph in Canada 1997. She earned her doctoral degree of Veterinary Medicine, Ontario Veterinary College, University of Guelph, Canada. Thereafter she earned doctoral degree of Veterinary Science in Swine Health Management of Department of Population Medicine, also at University of Guelph.

Beth is now a researcher at the Swedish University of Agricultural Sciences (SLU) in Uppsala with focus on reviews and assessment of the biological threats to Swedish animal agriculture. She is also Lead Reviewer/Editorial Board Member for Journal of Swine Health and Production, US and has several articles published.

## Jonathan Yuen

Jonathan Yuen Professor Yuen is an internationally recognized expert in plant pathology, plant disease epidemiology, modelling and statistics. He has published over 150 research citations, of which over 100 are journal articles or chapters in scholarly books. His research interests include quantitative epidemiology and the population biology of plant pathogens. He has used a variety of techniques to study pathogen populations, from molecular markers to a variety of modelling approaches, including process-based simulation models, empirical statistical models, and a variety of Bayesian techniques.

He was a leader in the use of logistic regression in developing risk algorithms, and was an early proponent of using ROC curves to evaluate the quality of these algorithms. He has been the main or assistant supervisor for 14 students who received their PhD from SLU, and was the assistant supervisor for 3 PhD students from Haramaya University.

## Raymond Zalinkas

Raymond A. Zalinkas has a BS (Biology), Masters (Organic Chemistry), and Ph.D. (International Relations, from the University of Southern California). He has worked for the U.S. Office of Technology Assessment; U.N. Industrial Development Organization; University of Maryland Biotechnology Institute; and the School of Hygiene and Public Health at Johns Hopkins University. In 1994, he twice served as an UNSCOM biological inspector in Iraq. During 2003-2004 he managed three Cooperative Threat Reduction projects at former biological weapons institutes in Russia. Currently he directs the Chemical and Biological Weapons Nonproliferation Program at the James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies at Monterey, California, which is a graduate school of Middlebury College. His more than 120 publications include *Encyclopedia of Bioterrorism Defense* (co-editor Rebecca Katz, 2010) and *The Soviet Biological Weapons Program: A History* (co-author Milton Leitenberg, 2012).