

Lecture	Description	Recommended Reading	Instructor
<b>Week 1: Homeland Security as an Economic Problem</b>			
8/31/10	<p>Threats</p> <p>Differential nature of Agricultural threat,</p> <p>Terrorism deliberate vs. inadvertent</p> <p>Why address this in economics</p> <ul style="list-style-type: none"> <li>• Nature of issue</li> <li>• Significance</li> <li>• Prior damages</li> <li>• Decision making/decision support</li> </ul>	<p>Hagerman, A.D., B.A. McCarl and J.H. Mu. 2009. "Economic Impact of a Livestock Attack." Voeller, J.G. (ed). <i>Wiley Handbook of Science and Technology for Homeland Security</i>. John Wiley and Sons.</p>	Bruce McCarl
9/2/10	<p>Nature of economic focus:</p> <ul style="list-style-type: none"> <li>• Event Costing <ul style="list-style-type: none"> <li>○ Direct production</li> <li>○ Market impact</li> <li>○ Indirect impact</li> </ul> </li> <li>• Strategy evaluation</li> <li>• Risk appraisal</li> <li>• Strategy design <ul style="list-style-type: none"> <li>○ Compensation</li> <li>○ Cooperation</li> <li>○ Regulatory design</li> </ul> </li> <li>• Market impacts <ul style="list-style-type: none"> <li>○ Supply/demand</li> <li>○ Trade</li> <li>○ Dynamic</li> </ul> </li> <li>• Induced/regional impacts</li> </ul>	<p>Pritchett, J., D. Thilmany, and K. Johnson. 2005. "Animal Disease Economic Impacts: A Survey of Literature and Typology of Research Approaches." <i>International Food and Agribusiness Management Review</i>. 8(2): 23-46</p> <p>Morgan, N. and A. Prakash. 2006. "International Livestock Markets and the Impact of Animal Disease." <i>Revue Scientifique et Technique de l'Office International des Epizooties</i> 25(2): 517-528.</p>	Bruce McCarl
<b>Weeks 2: Economic background for homeland security</b>			
9/7/10	<p>Review of the Basics</p> <ul style="list-style-type: none"> <li>• Demand/supply analysis</li> <li>• Cost benefit analysis</li> <li>• Decision making theory</li> <li>• Risk analysis</li> <li>• Externality</li> <li>• Cooperative / Non Cooperative behavior</li> <li>• Induced effects (indirect input output)</li> <li>• Spatial nature of homeland security issue</li> <li>• Robustness</li> </ul>	Class Notes	Bruce McCarl

9/9/10	<p>Basic decision problem</p> <ul style="list-style-type: none"> <li>• Context</li> <li>• Ex Ante- and ex-post-investment /management mix</li> <li>• Information needs</li> </ul>	Class Notes	Bruce McCarl
<b>Week 3: Markets</b>			
9/14/10	<p>General Market Issues</p> <ul style="list-style-type: none"> <li>• Measured through prices and production</li> <li>• Measured through equity prices</li> </ul>	<p>Thompson, D., P. Muriel, D. Russell, P. Osborne, A. Bromley, M. Rowland, S. Creigh-Tyte, and C. Brown. "Economic Costs of the Foot-and-Mouth Disease Outbreak in the United Kingdom in 2001." <i>Revue Scientifique et Technique de l'Office International des Epizooties</i> 21(3 2002): 675-687</p> <p>Leeming and Turner. 2004. "The BSE Crisis and the Price of Red Meat in the UK." <i>Applied Economics</i>. 36:1825-1829.</p>	David Bessler
9/16/10	Case studies: AI Impacts	<p>Huang, W., D.A. Bessler. 2010. "How Does Avian Influenza Impact Poultry Related Equities Listed on US Public Stock Markets?" Unpublished Working Paper, Texas A&amp;M University.</p>	David Bessler
<b>Week 4: Markets</b>			
9/21/10	Case studies: Meat Market Impacts	<p>Park, M. Y.H. Jin, and D.A. Bessler. 2008. "The Impacts of Animal Disease Crises on the Korean Meat Market." <i>Agricultural Economics</i>. 39: 183-195.</p>	David Bessler

9/23/10	Case studies: H1N1 Impacts	Attavanich, W., B.A. McCarl, and D.Bessler. "The Effect of H1N1 (Swine Flu) Media Coverage on Agricultural Commodity Markets." <i>Applied Economic Perspectives and Policy</i> (Revised and Resubmitted)	Witsanu Attavanich
<b>Week 5: Human Health Implications</b>			
9/27/10	Food Security (case studies) <ul style="list-style-type: none"> <li>• Oregon salad bar</li> <li>• Japanese radishes</li> <li>• FMD in England</li> <li>• BSE in England, Canada, US</li> <li>• AI in China</li> <li>• Spinach event</li> </ul>	Marsh et al. 2004. "Impacts of Meat Product Recalls on Consumer Demand in the USA." <i>Applied Economics</i> . 36:897-909.  Lloyd, T.A., S. McCorrison, C.W. Morgan and A.J. Rayner. 2006. "Food Scares, Market Power and Price Transmission: The UK BSE Crisis." <i>European Review of Agricultural Economics</i> 33(2): 119-147.	Jianhong Mu
9/30/10	Human Health Implications: RVF <ul style="list-style-type: none"> <li>• Value of a Life</li> <li>• Lost Productivity</li> </ul>	Landefeld, J.S. and E.P Seskin. 1982. "The Economic Value of Life: Linking Theory to Practice." <i>American Journal of Public Health</i> , 72(6):555-568.  Viscusi, W.K. 1993. "The Value of Risks to Life and Health." <i>Journal of Economic Literature</i> , 31(4): 1912-1946.  Gold, M.R., D.Stevenson, D.G. Fryback. 2002. "HALYs and QALYs and DALYs, Oh My: Similarities and Differences in Summary Measures of Population Health." <i>Annual Review of Public Health</i> , 23:115-134.	Randi Hughes-Fraire

<b>Week 6: Vulnerability assessment for animal disease</b>			
10/5/10	FMD Carcass disposal	<p>Carpenter, T.E., J. O'Brien, A.D. Hagerman and B.A. McCarl. 2010. "Epidemic and Economic Impacts of Delayed Detection of Foot-and-Mouth Disease: a Case Study of a Simulated Outbreak in California" forthcoming <i>Journal of Veterinary Diagnostic Investigation</i>.</p> <p>Jin, Y, W. Huang, and BA. McCarl, 2005. "Economics of Homeland Security: Carcass Disposal and The Design of Animal Disease Defense." <i>Paper presented at the American Agricultural Economics Association Meetings</i>, Providence, Rhode Island.</p>	Amy Hagerman
10/7/10	RVF H1N1 and Climate	Class Notes	Randi Hughes-Fraire, Mark Masumba and Ruth Amuta
<b>Week 7: Vulnerability assessment for animal disease</b>			
10/12/10	Avian Influenza: China	<p>Rouliot, S. and D. Sumner. 2008. "Traceability, Liability, and Incentives for Food Safety and Quality." <i>American Journal of Agricultural Economics</i> 90:15-27.</p> <p>Brouwer, R., P. van Beukering and E. Sultanian. 2008. "The Impact of the Bird Flu on Public Willingness to Pay for the Protection of Migratory Birds." <i>Ecological Economics</i> 64:575-585.</p>	Jianhong Mu
10/14/10	Avian Influenza: Texas	Robert H. Beach and Chen Zhen, (2008), "Consumer	Jianhong Mu

		<p>Purchasing Behavior in Response to Media Coverage of Avian Influenza”, Selected Paper prepared for presentation at the Southern Agricultural Economics Association Annual Meeting, Dallas, Texas, February 2-5, 2008.</p> <p>Verbeke W and Ronald W. Ward, (2001), "A fresh meat almost ideal demand system incorporating negative TV and advertising impact", <i>Agriculture Economics</i>, 25.</p>	
<b>Week 8: Investment and Response</b>			
10/19/10	Balance studies for animal disease Inspection and FMD	<p>Elbakidze, L., and B.A. McCarl. "Animal Diseases Prevent Preparedness Versus Post-event Response: When Is It Economic to Protect." <i>Journal of Agricultural and Applied Economics</i> 38(2 2006):327-336.</p>	Bruce McCarl
10/21/10	Vaccination and carcass disposal Animal ID	<p>Hagerman, A., B.A. McCarl, T.E. Carpenter, J. O'Brien. 2010. "Emergency Vaccination and Control of FMD: Consequences of Its Inclusion as a US Policy Option." Working Paper.</p> <p>Hagerman, A.D., J.C. Looney, B.A. McCarl, D.P. Anderson, M. Ward. 2010. "Rapid Effective Trace-Back Capability Value in Reducing the Cost of a Foot and Mouth Disease Event." <i>Journal of Agricultural and Applied Economics</i>. Selected paper for the 2010 SAEA Annual Meeting Proceedings</p>	Bruce McCarl
<b>Week 9: Policy decision making</b>			
10/26/10	Policy interventions	Gramig, B., R.D. Horan and	Amy

	Public versus private goods Incentive mechanisms Non-cooperative behavior Compensation	C.A.Wolf. 2009. "Livestock Disease Indemnity Design When Moral Hazard is Followed by Adverse Selection." <i>American Journal of Agricultural Economics</i> . 91(3): 627-641.  Gramig, B.M., B.J. Barnett, J.R. Skees, and J.R. Black. 2006. "Incentive Compatibility of Risk Management of Contagious Livestock Diseases." <i>Economics of Livestock Disease Insurance: Concepts, Issues and International Case Studies</i> . S.R. Koontz, D.L. Hoag, D.L. Thilmany (eds). CABI Publishing: Wallingford, Oxfordshire.	Hagerman
10/28/10	Experiences Trade and Events	Paarlberg, P.L., and J.G. Lee. 1998. "Import Restrictions in the Presence of a Health Risk, an Illustration using Foot and Mouth Disease." <i>American Journal of Agricultural Economics</i> 80(1998):175-183	Fred Boadu
<b>Week 10: Policy decision making</b>			
11/2/10	Regulation / legal issues Strategy <ul style="list-style-type: none"> <li>• Zoning/regionalization</li> <li>• Assurance</li> </ul>	Seitzinger, A.H. and Forsythe. 1999. "Regionalization's Potential in Mitigating Trade Losses Related to Livestock Disease Entry." <i>Annals of the New York Academy of Sciences</i> . 894: 95-99.	Fred Boadu
11/4/10	Probability Risk Stochastic Dominance	McCarl, B.A. "Forming Probability Distributions: Applied Simulation for Economic Analysis Notes." Unpublished manuscript, Texas A&M University, 1996.  McCarl, B.A. "Choosing Among Risky Alternatives	Bruce McCarl

		Using Stochastic Dominance." Unpublished Manuscript, Texas A&M University, August 2008.	
<b>Week 11: Assessing policy and Challenges</b>			
11/9/10	Advanced Stochastic Dominance BRAC	McCarl, B.A. "Preference Among Risky Prospects Under Constant Risk Aversion." <i>Southern Journal of Agricultural Economics</i> 20(December 1988): 25-34.  McCarl, B.A. and D. Bessler. "Estimating an Upper Bound on the Pratt Risk Aversion Coefficient when the Utility Function is Unknown." <i>Australian Journal of Agricultural Economics</i> 33(April 1989): 56-63.	Bruce McCarl
11/11/10	Evaluation Terrorism	Casagrande, R. 2002. "Biological Warfare Targeted at Livestock." <i>Bioscience</i> 52(July): 577-581	Bruce McCarl
<b>Week 12-14 Student Presentations (20 minutes plus 10 minutes class discussion)</b>			
<b>Week 15 Related issues and Wrap-up</b>			
FINAL SCHEDULED TIME: DECEMBER 15, 1-3PM			