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Application of traditional and molecular techniques in understanding the epidemiology of *Riemerella anatipestifer* in a commercial duck company

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A commercial duck company that raises approximately 6 million Pekin ducks per year, had multiple flocks on multiple farms that were experiencing sickness and death loss due to *Riemerella anatipestifer*. The disease appeared to be spreading from farm to farm. The level of biosecurity practiced by flock supervisors was limited and there was concern that the company may be responsible for the bacterial spread. A field investigation was undertaken wherein sick and dead ducks from affected flocks were sent to a veterinary diagnostic laboratory for diagnostic investigation. Ducks from affected flocks had lesions of septicemia. Bacterial isolation resulted in the recovery of large numbers of *Riemerella anatipestifer* from affected birds. *Riemerella anatipestifer* isolates were sent to the National Animals Disease Center in Ames, Iowa where they were analyzed via serotyping and molecular fingerprinting. It was determined that *Riemerella anatipestifer* was spread to multiple farms from a company-owned farm. The results of this study reinforce the value of molecular testing for field investigations and the importance of biosecurity in the prevention of disease spread.

Biography

R. M. Fulton is a veterinary pathologist with over 25 years of experience in poultry pathology and medicine. An associate Professor of avian diseases and a Diplomate of the American College of Poultry Veterinarians, he serves as a diagnostician, teacher, researcher and poultry extension veterinarian at Michigan State University. He is skilled in training others in avian disease diagnosis, treatment, prevention, and control, as well as in biosecurity and the use of personal protective equipment. He has led training on response to catastrophic poultry diseases in Mongolia, Moldova, Macedonia, Transnistria, Egypt and Nepal as well as led table top and farm-based exercises in Bulgaria, Rwanda and his home state of Michigan. He has worked to re-establish a veterinary pathology teaching program at Kabul University in Afghanistan and has provided poultry production development and planning assistance to commercial poultry producers in Turkmenistan. Published widely on avian diseases, he has a D.V.M. and a Ph.D. in veterinary pathology from Purdue University.

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