AGJR 404: Communicating Agricultural Information to the Public

Journal Articles Review Assignment
Research Article #1

APA Citation:

Intended Audience:
This article is published in Avian Diseases, which is the official publication of the American Association of Avian Pathologists. The journal concentrates on poultry diseases, and also contains articles on diseases of pet and wild birds. It is intended for anyone with an interest in learning more about avian diseases, particularly those who own poultry farms or are in close contact with one. The AAAP is a national organization for veterinary practitioners, diagnosticians, researchers, and students interested in poultry health and medicine.

Location: National Agricultural Library Stacks. Call Number 41.8 Av5

The isolation of Exotic Newcastle Disease (END) virus from nonpoultry avian species associated with the epidemic of END in chickens in Southern California: 2002-2003

The main focus of this article was the association between non-poultry avian species infected with Exotic Newcastle Disease (END) virus and the epidemic of END in chickens in Southern California from 2002 through 2003. This virus, also known as Velogenic viscerotropic Newcastle disease (VVND) or Asiatic Newcastle disease, affects avian species, causing rapid dissemination and mortality. This virus was first diagnosed in the United States in California in 1950 among imported pheasants. Since 1950, there have been numerous outbreaks confirmed in several other states and countries. The experiment in this article occurred between October 2002 and August 2003, when more than 27,000 specimens were submitted to the University of California’s School of Veterinary Medicine for ENDV testing. Virus isolation was the primary testing method used, and the association between the disease statuses of non-poultry avian species with the presence of chickens was measured. Fifty-seven specimens (representing 12 different species) out of more than 24,000 tested positive for NDV, all of which had been collected inside the quarantine zone within one kilometer of a known infected premise.

This article provided information that is beneficial to those who own poultry farms or live near one because it provides evidence to suggest that non-poultry avian species can be infected by this disease if they come in close contact with infected poultry. According to this article, the spread of a past epidemic of ENDV between chicken flocks was due to mechanical transport by humans, especially in cases where birds are smuggled into the United States. This information is important for poultry service crews and farm operators because they need to know the necessary precautions to take in order to reduce risk of spreading the disease, if it is present in their flocks. This article provided a diagram of the geographical distribution of non-poultry positive-ENDV
birds in the quarantine zone. The diagram was effective because it illustrated how close the infected birds were to the area where an outbreak had occurred in southern California.

I believe this article was effective in providing research information that provides evidence to suggest that although ENDV is a virus that mainly infects poultry, other birds can be affected as well. The general public should be aware of the possibility of the virus affecting other non-poultry species. I will use this information in my research brief when describing the effects of ENDV and how the disease is spread, and will include data and research on other avian species besides chickens. This information also will be included in the fact sheet, but I will present the information in a less complex way for the press release and news brief.

**Journal Articles Review Assignment**

**Research Article #2**

APA Citation:


Intended Audience:

*Avian diseases* is the official publication of the American Association of Avian Pathologists. It is intended for anyone with a direct interest in poultry diseases, but also includes articles on diseases of pet and wild birds. It is intended for poultry farm owners, as it provides information on the ways poultry flocks can be infected. The AAAP is a national organization for veterinary practitioners, diagnosticians, researchers, and students interested in poultry health and medicine.

Location: National Agricultural Library Stacks. Call Number 41.8 Av5

**Survival of exotic Newcastle disease virus in commercial poultry environment following removal of infected chickens**

This purpose of this article was to explain the survival of the Exotic Newcastle Disease (END) virus in commercial layer flocks in southern California following the removal of the infected chickens. The purpose of the experiment was to provide management techniques for contaminated poultry manure in the course of an END outbreak. In the experiment, environmental drag swabs were tested for END virus from two commercial poultry ranches that consisted of several houses following immediate removal of the infected flocks. Each of the ranches used a different manure-handling system. The experiment tested for ENDV survival times outside the host associated with temperature, moisture, and environment. Several samples taken from the first ranch, which had a manure pit with concrete floors, tested positive for the END virus. All samples taken from the second ranch, which had an automatic manure belt disposal system, tested negative for the virus during the entire sampling time.

Though this article provided sufficient evidence that a better manure-handling system lessens the probability of infecting other chickens post-depopulation, there were a number of
factors that should be considered when accounting for the absence of the virus. The discussion portion of the article states that the flock from the second ranch was well vaccinated for Newcastle disease, and that the style of the houses was high-rise, including a high volume ventilation system which caused the manure on the surfaces of the belts to be dry. By taking into account other factors, it is less appropriate to assume that only the manure-handling system is responsible for the survival of the disease. The experiment was effective, however, in showing that the lesser quality, California-style houses in the first ranch, were very likely to continue to carry the virus after ENDV-positive chickens had been removed. This information is useful for anyone who might own a poultry ranch with this style of housing.

The experiment was conducted over a 21 day period, but I believe that it could have been more effective if the testing period had been longer. Though other factors such as temperature, weather, and housing style were considered, a more thorough testing of each factor could have made the results more accurate. I would suggest this article be read by poultry farm operators and service crews because it provides information on how to handle manure from infected premises, and it suggests that a higher-quality manure-handling system, such as a manure belt disposal system, may prevent disease spread if your flock is infected with ENDV. I plan to use this information in my research brief, news brief, and press release when discussing the probability that manure carries the disease and can still infect other chickens once the contaminated chickens have been removed from the flock. I also will use this information in my brochure when suggesting housing styles and manure systems to poultry ranch owners.