TECHNICAL Cobb FOCUS

ONE - 2004

THE POLITICS OF POULTRY DISEASE IN THE GLOBAL MARKET

RE-INVENTING BIOSECURITY

Leonard W. Fussell D.V.M., M.A.M. Dipl. A.C.P.V.,

Kate Barger D.V.M., Scott Gustin D.V.M., M.A.M., Algis Martinez D.V.M., Dipl. A.C.P.V.

Biosecurity in poultry operations is implemented in many ways around the world. Biosecurity is the term used to describe the overall strategy or linked steps that are employed to exclude infectious disease from entering and exiting a premise and/or a company.

Any biosecurity program that "works" is a good program....or is it? In the absence of disease challenge, any biosecurity program will appear to work. However, when and if a disease challenge occurs in an area the biosecurity program will be fully tested. Weakness in any of the biosecurity links may result in disease on the farm and in the surrounding area. Biosecurity strategies that may look excellent on paper fail time and time again. There are always reasons for biosecurity failures and being aware of the most common mistakes may prevent errors from being repeated. Common sense efforts can be employed to strengthen the biosecurity programs currently in place with minimal additional investment in all types of poultry operations throughout the world. Every company should explore a strategy for re-inventing and re-evaluating their current biosecurity programs NOW! Our suggestions to re-invent and re-evaluate the biosecurity for your company and farms are explored in this review.

Are you prepared to evaluate the real risk for your company?

Although there are many diseases of concern for poultry producers, historically the primary concern for an individual grower or company has been the loss due to flock morbidity and mortality that may occur with a major disease on the local level. However, on a global level the real cost is actually incurred when there is a disruption in international commerce for poultry meat, eggs and/or chicks. Furthermore, the politics of disease often results in true market upheaval (internationally, nationally, and locally) and is thus the real cost to the entire industry.

Using the USA production system as an example, a disease causing a "one time mortality" of 1 million chickens in a complex would result in tremendous losses for a company. However, a more dramatic and devastating loss would be incurred if the same disease affected the ability of the company to sell and export poultry meat. For example, if the company produces 5 million chickens per week for a year (5 million chickens with a 5 lb average is 25 million pounds per week x 50 weeks per year) a total of 1.25 billion lbs annually is the potential for sale and export. You do the math: if this export market closed indefinitely due to disease problems in the production area, the total losses would be exponential! The potential losses that could decimate a company when disease results on a national and global level make it clear that an aggressive stance must be taken to eradicate outbreaks of diseases of OIE (Office International des Epizooties) significance and to prevent their spread and reoccurrence.

In this incredibly integrated and dependent world, there is no time for even the slightest hesitation when faced with severe diseases such as Highly Pathogenic Avian Influenza (HPAI) or Viscerotropic Velogenic Newcastle Disease (VVND). Upon realizing the dangers and risks of these diseases in commercial poultry production systems each producer and company can focus on the cost-benefit ratio of implementing and maintaining an effective biosecurity program. The costs of such a biosecurity program are insignificant when faced with a total market meltdown, and mortality and eradication dollars become irrelevant when compared to the greater impact that these most feared diseases have on global poultry production.

The WEAKEST Link

The caveat is that an entire market is subject to the weakest link or the actions of the company or person(s) with the poorest biosecurity program. Serving as veterinary health professionals for a primary breeder company, one quickly realizes the definition of vulnerability when exports are instantly shut down due to no fault of your own. Genetic seedstock produced and managed under the

Continued on page 2

Continued from page 1

most intensive surveillance and biosecurity programs become suddenly unexportable due to an unrelated and distant disease outbreak occurring in a company that is geographically over a thousand miles away. This is a sobering reality and something we live with in the primary breeder business every day. For safety reasons at Cobb we have genetic seedstock located strategically within the USA and around the world to secure the "pipeline of product" to our customers.

Nonetheless, there are constant adjustments that Cobb-Vantress, Inc. makes quickly and efficiently to ensure the safe production and delivery of both eggs and chicks to our customers. Many times, these changes must be made due to the disease status in countries where production units are located or the disease status of countries which are simply points of transshipment during delivery.

No matter where poultry are produced in the world, each individual, company and country must have the resolve to mandate and actively practice biosecurity everyday in order to really make a difference.

Market trends you should be aware of and how they can impact you

1) Risk of Zoonosis (diseases that animals pass to humans): Until recent outbreaks of Avian Influenza in Europe and Southeast Asia, the issue of zoonosis was not strongly considered, except for food borne illnesses such as Salmonella, E. Coli and Campylobacter. The relatively minor threat of conjunctivitis from Newcastle Disease has now been superceded by deaths caused by HPAI viruses. The threat of human exposure and illness from Avian Influenza now presents additional pressure in terms of media awareness and human health agencies preparedness. This necessitates greater measures to prevent HPAI and VVND from entering commercial poultry production.

2) Biosecurity: Theory or Practice? Biosecurity is often talked about, planned and implemented to some extent in the majority of the world. However, many countries and companies do not have the resolve to practice a level of biosecurity that will really make a difference to prevent the occurrence and the rapid spread of an exotic disease.

We have travelled the world visiting different poultry production systems and will not hesitate to say that there are many weak links in biosecurity programs. I have also found that there are other areas of the world that appear to be "solid" on paper and perhaps to the casual observer appear to employ a more intense biosecurity program, but these same countries often have more occurrences of exotic diseases such as HPAI or VVND. Is biosecurity in those countries for "show?" Or is the intensity of biosecurity reflective of the degree of challenge from exotic diseases on an everyday basis? At this time, it appears that no region is truly "safe" from the threat of exotic diseases.

No matter where poultry are produced in the world, each individual, company and country must have the resolve to mandate and actively practice biosecurity everyday in order to really make a difference.

3) Free-range poultry: Trends to grow and market free-range birds have increased the risk of disease for the entire poultry population in some countries. A prime example of this trend is the Avian Influenza that occurred in Europe in 2002. The disease was difficult to control and stop in the free range bird populations, and resulted in the slaughter and depopulation of many birds, both commercial and free range.

The greatest drawback with these alternative production systems is that adequate "birdproofing" of a free-range environment simply does not happen. A "natural disaster" is inevitable when wild birds, particularly migrating waterfowl, are in close proximity to domestic poultry. As long as there is a market for free range poultry, businessmen will meet that market need and produce the product. However, in doing so, these individuals place the entire industry at risk due to their business decisions.

4) Concentration of production: Poultry tends to be concentrated into fewer companies and in certain geographic areas around the world. For example, in the USA certain states produce the majority of all commercial poultry meat and eggs.

In Brasil, Europe and Asia, areas of production are often concentrated in specific areas due to labor, water, land, feed supply or market limitations. These dense poultry populations not only increase the risk for disease, but also limit the ability to stop disease dissemination once it has started. Due to this tendency, the need for strict biosecurity on each farm and for each company is critical. And, again, despite a company's best biosecurity program, its defenses may be weakened by a poor biosecurity system of other producers if infectious diseases are prevalent.

5) Partial catching or removing filler: The practice of partial catch or removing filler is one by which a certain percentage of the broiler flock is removed early and the remaining birds are kept for a longer period of time to achieve a higher market weight. This trend increases risk of disease and is common in certain regions due to consumer demands.

For example, in the USA only a few companies with Cornish or Roaster programs employ this practice of taking out a portion of the chickens and returning at a later date to catch the rest. In Europe, due to housing constraints and limitations for the maximum quantity of kilograms of bird per square meter permitted in some countries, poultry companies are forced into a situation in which they utilize this practice to meet local legislative requirements and to stay competitive in the face of high housing costs.

Continued on page 3

Whatever the reason for this practice, the truth is that the live-haul and catching procedures are invasive moments on any chicken farm. During live haul and catching, the entry of equipment and people on to the farm and their movement in and out of the houses is inevitable. With each entry and exit of a person or machine on to a farm, the potential entry and exit for an "unseen" disease causing organism is also very possible! Again, this trend is a risky matter and must be balanced in overall strategic planning for biosecurity.

6) Regionalization: This is a term that has been discussed for some time by those employed in government services and those involved in the export of poultry products.

Regionalization is a plan recognized by many governments around the world in regards to disease prevalence. Specifically, the regionalization concept allows defined regions of a country to continue to export despite the presence of a disease in an area geographically distinct from the site from which an export is to occur. The USA has allowed regionalization and other countries have reciprocated on a case-by-case basis. In these situations, zones like states or provinces define the geographical regionalization permitted.

When disease crises occur in countries where genetic stock originates and/or is transshiped, it is vital that you work with your government animal health officials to quickly verify reports and to actively propose a contingency plan so that you can successfully receive shipments that are already in transit or shipments that will soon be arriving. Many times, governments are slow to react and make decisions due to political pressures and the fact that they may not understand the poultry industry. Your involvement will help educate them and expedite your shipment arrival!

> The management perspective that "you can do anything you want as long as it doesn't cost anything" is not the answer when considering the value of effective biosecurity.

An additional view of regionalization that is not as widely understood by all poultry producers and government officials is the concept of regionalization along the lines of a company or program instead of just a geographic regionalization.

A prime example is that all of the primary breeders in the USA participate in the Avian Influenza clean program of the National Poultry Improvement Plan (NPIP). To be certified as Avian Influenza Clean in this national plan every flock is tested frequently for Avian Influenza by an official laboratory (at Cobb we test birds for Avian Influenza every 3 weeks). In consideration of this program, program line regionalization could allow genetic seedstock companies that participate in the nationally recognized AI surveillance/monitoring program to export genetics anywhere in the world regardless of the Avian Influenza status in the region from which the genetic seedstock originates.

The primary breeders of the world need the help of customers world-wide to simplify this process and to promote understanding and acceptance of program and company regionalization since it is becoming more difficult each day to provide the needed genetics to our customers simply because their governments do not understand our business.

How can you re-evaluate and re-invent biosecurity for your company?

The most common reason for failure in biosecurity that results in a disease outbreak is the failure of a person to do what they were supposed to do. On the surface this is not earth shattering information, but in reality it is. When and if this occurs, there are several critical points that must be evaluated:

1. Why would any person not practice the written biosecurity program that you certainly have put together over the last few years? What can be done to correct this failure? What are the consequences for not following company policies for biosecurity?
2. Did the person know what he/she was supposed to do?
3. Did you communicate the biosecurity program in his/her native language and manner that he/she clearly understands?
4. Does the individual disagree with the program? Does the individual take biosecurity seriously? Some people do not take biosecurity seriously and feel that it is intended for everyone but themselves. It is especially critical that all personnel, regardless of status and/or position within the company, follow biosecurity policies!

Re-inventing biosecurity:

Acceptance by management: The first thing that must happen is that management of the company must accept and embrace the need for biosecurity programs and understand the risk of non-compliance for these programs.

Let's face it, some people suggest that biosecurity does not cost anything. The truth is, biosecurity does and will have a cost. Again, when we evaluate the potential loss to our local, national and global market in the face of an outbreak, implementing and practicing biosecurity properly is not done on cost efficiency. The quantity of birds evaluated daily per serviceman will decrease if biosecurity and the job of servicing are done properly. Is management ready to invest in more manpower for this purpose? If not, then perhaps management is not realizing the true impact of biosecurity and therefore is not embracing the need realistically.

Continued on page 4

Continued from page 3

The management perspective that "you can do anything you want as long as it doesn't cost anything" is not the answer when considering the value of effective biosecurity.

Execution by management: Company management must make the need for biosecurity a high priority. If a high expectation is not promoted and practiced by management, then change of attitudes and improvements in biosecurity will not happen. Management must also empower its employees to make the program practical.

Revise the biosecurity program and involve everyone: Assuming you have a written biosecurity program for your operation, pull the dusty copy off the shelves and invite those who must follow it on a day to day basis to assist you with reviewing and rewriting the program. (Do not hire anyone to write your program from the outside...you and your team must write the program yourselves!) There is probably more gained during the time that a biosecurity program is dissected, argued and rewritten by the people that are actually going to practice it day to day than at any other time.

The poultry producer is key in the overall biosecurity process. The ownership must be with the contract farmer and/or farm manager to control non-company traffic and to identify weaknesses in the program. Explain the economics of disease to the producers as far as what it means to them and to the survival of the company and the industry.

The service persons, growers or producers, vaccine crews, catchers, haulers, etc. have more knowledge of the weaknesses in the program than anyone else as long as they understand the basics of disease and what you are trying to accomplish. If these people are empowered, they are your strength. Take a look at the U.S. Poultry and Egg Association Biosecurity Diskette (free at http://www.poultryegg.org/Biosecurity/biosecurity.cfm). It is a great reference material, but remember, you must customize the program to your own operation and involve your specific team.

Resolve to make biosecurity cultural: Common sense practice of biosecurity must become cultural and instilled as to require minimal thought by those practicing it on a daily basis. Until everyone cares about what is actually happening, the biosecurity program is only meaningless words on a piece of paper. Getting to this level requires that management embrace the program and the entire team become dedicated to education and consistency in biosecurity.

> There should be no vulnerable segments of your production. Your personnel serve as the armor between your production and exotic disease - there should be no weaknesses!

Without a culture change in biosecurity, good execution will not occur. How is your program carried out by every person every day when no one is watching? Compliance and practicality are the key! The program must not be so onerous as to make it impossible to do business, but it must at the same time effectively exclude the threat of disease.

In addition to a well-written program that is audited with some frequency, a contingency plan should be planned now, that must include the company, other integrators, and the government (local, state, federal) to determine the reaction and plan that will be implemented in the event a break or a suspected exotic disease occurs.

Many states in the USA and countries around the world have such contingency plans to allow for immediate disease reporting and containment plans. The first few hours or days of a break of a serious disease such as Highly Pathogenic Avian Influenza or Velogenic Viscerotropic Newcastle are critical to stop the spread of the disease. In these stressful moments of suspected or known disease breaks, it is imperative that all facets of a company are quickly and correctly informed of the situation. The production, veterinary, and transportation personnel all need to be aware of the company's emergency plan.

The management and financial decision makers of the company must also realize that whole flock depopulation may be a necessity in order to quickly control and prevent further damage to their operation and the industry. Initially, these decisions are unappealing in terms of direct costs, but can be essential in eradicating further spread of a disease and future indirect costs to the business.

Start now before it's too late!

The sobering reality in poultry production is that biosecurity is often not addressed until the threat is eminent or it is already too late! Identify key authorities in your area that will be responsible for decisions should an emergency arise.

Also, ensure that lines of communication are established so that every person that is involved in your operation knows and understands the current situation in the field, your biosecurity program, and the consequences of not complying. There should be no vulnerable segments of your production. Your personnel serve as the armor between your production and exotic disease-there should be no weaknesses!

With the current disease climate that exists, now is the time to review and re-invent your biosecurity program. These decisions may ultimately influence the viability of your business for years to come.