

Western Poultry Disease Report
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Introduction: In speaking with veterinarians across the western provinces in the preparation of this report, it became evident that the majority of disease challenges were eclipsed by the Avian Influenza (AI) disaster in BC. While I am attempting to summarize the disease challenges in all four western provinces, for each of the four commodity groups the biggest problem for BC would be AI. I have been asked not to focus on AI for this report but couldn't help but comment that we have all had a wake up call as we observed how much bird movement there is between provinces, and thus how interconnected our poultry industry is, even with provincial market segregation. There is a considerable amount of human movement between provinces including field service people, who by the nature of their jobs are in contact with poultry farms and producers and potentially pose the greatest risk for disease transmission. In our daily responsibilities, we tend to focus on nutrition, management, vaccination and medication to help control disease but ultimately every infectious disease has to get into the barn to cause problems in the first place. There are many risks we cannot eliminate including those associated with our occasional presence on farms, and movement between farms but we certainly can mitigate these risks by taking adequate biosecurity measures. Our clients expect and deserve our every effort in protecting their farms and companies.

Turkeys: It would appear that turkey growers across the west had a relatively uneventful year on the disease front. Reports of rickets and some leg problems were present with occasional cases of ionophore toxicity cases seen in all four provinces. Ongoing challenges with hemorrhagic enteritis (HE) have been identified on various farms and serve to remind us of the importance of a solid vaccination program. The clinical presentation of HE will often be, increased mortality at 4-6 weeks of age which is usually associated with *E. coli* or *Salmonella* septicemia (infection of the blood stream). It is difficult to treat these secondary bacterial infections, which makes identifying and preventing the underlying causes, important. Considerable losses were seen on a few isolated farms in Manitoba and Alberta associated with Fowl Cholera. Fowl Cholera is a severe respiratory disease caused by the bacteria *Pasteurella multocida*. The most important

factor in preventing this disease is ensuring that wild birds, rodents and cats do not have access to the barns as well as having a good vaccination program where the risk factors are still present. No cases of black head disease (histomoniasis) were reported in commercial flocks. The prevention of this disease has become so important since, the only effective treatment, dimetridazole (Emtryl) was pulled from the market. Companies feeding farms with range-reared flocks may want to consider including Histostat-50 in the feed as a preventative measure for this parasitic infection, which can result in 100% mortality.

Broilers Chickens: The disease report for broiler chickens should include mention of ongoing challenges with occasionally high losses due to omphalitis (yolk sac infection). Colisepticemia in older birds continues to be a problem on certain farms but overall condemnation rates are low. Higher than usual level of rickets are being reported in broilers including a trend toward younger birds (5-10 days of age). The majority of these cases appear to be responsive to vitamin D supplementation in the drinking water but are causing losses, nonetheless. In Manitoba, Saskatchewan, Alberta and BC there have been ongoing problems with Inclusion Body Hepatitis (IBH) which is a disease caused by an adenovirus. Adenoviruses are highly resistant to environmental destruction and are present in every barn. Traditionally this disease has been present year upon year in low levels, representing losses of 2-4 %, at or around 21 days of age in a small number of farms. In the last year IBH has been responsible for considerable losses both in number of farms affected and overall mortality, in all four Western provinces. Vertical transmission from breeder flocks is suspected in the early cases at 8-12 days of age, and later cases, i.e. between 14-26 days of age, are attributed to horizontal (bird to bird or barn to bird) transmission. Losses as high as 35% have been seen in some flocks but 5-10% is more common. Commonly, IBH is a secondary infection, which follows immunosuppression caused by other factors, such as early chilling, Infectious Bursal Disease, or Chicken Anaemia Virus (CAV). The strain of virus isolated from cases in Alberta and Saskatchewan has been identified as strain 8a, which has been shown to cause problems in the absence of other immunosuppressive diseases (e.g CAV, IBD, Marek's) in Ontario. There are ongoing investigations in all four provinces to identify underlying causes and to identify reasonable control measures. Problems with IBH in Australia lead to the development of a vaccine for breeders, which may be required in western Canada. ILT has been seen in a number of commercial

broiler farms in Alberta and continues to pose a significant threat to the rest of the commercial breeder and layer flocks, which are unvaccinated.

Broiler Breeders: The disease situation in broiler breeders has been quite stable with continuing challenges with Staph. arthritis and occasionally Staph. septicaemia. All provinces report farms which have particularly virulent strains of Staph., many of which are highly resistant to antibiotics. Some factors which influence the rate and severity of Staph. infections are damaged foot pads from high litter ammonia, and or sharp edged objects on slats, physical damage of the joints from jumping or handling during weighing, nutritional stress from over-restriction, social stress associated with overly aggressive males, or high male to female ratios, and poor overall barn conditions. Peritonitis (infection of the abdomen) and Salpingitis (infection of the oviduct) commonly caused by *E. coli* continue to be a problem with some breeder flocks coming into production and at peak lay. In the many cases I have seen, this problem has been accompanied by high numbers of floor eggs but it has been reduced, by cleaning nest boxes, top dressing with new litter, and by increasing ventilation. Without Baytril to treat these infections management and prevention in the barn have become even more important.

Egg Layers: Disease challenges and reports for the egg layer flocks have been relatively few and far between. Prolapses, Fatty Liver Hemorrhagic Syndrome, Yolk peritonitis and cage layer fatigue (osteoporosis) remain the most common causes of mortality. Bronchitis challenges have been associated with decreased egg quality and production in several flocks and Marek's disease has been implicated in cases of early pullet mortality.