

Sandhill Veterinary Services

Veterinary Care for Game Birds, Commercial Poultry and Pigeons



Game Bird Disease Surveillance Report May – September 2014

SUBMISSION REVIEW

A 'submission' is a single bird or distinct batch of birds of the same age or type.
These figures do not include faeces samples submitted for coccidial oocysts counts and worm egg counts.

Total Birds Examined	2089
Total Number of Pheasant Submissions	320
Total Number of Partridge Submissions	258
Total Number of Submissions	578

In 2014 pheasant submissions accounted for 55% of total pheasant and partridge submissions compared with 73% in 2013.

Overall the number of submissions in 2014 was slightly higher than in 2013 but the total number of pheasant submissions was down and partridge submissions rose by 75%.

PHEASANTS

Breeding birds: Mycoplasmosis was the most frequent condition seen in breeding flocks and the incidence of infection was significantly higher than last year. Testing showed some of these flocks to have concurrent *Ornithobacterium rhinotracheale* (ORT) infection – a bacterial infection that increases the severity of Mycoplasmosis. Visceral gout due to Coronavirus infection was seen in a number of flocks and individual cases of Blackhead and Erysipelas were seen early in the breeding season but in neither flock was mortality excessively high. No cases of Marble Spleen Disease (an Adenovirus infection) were detected this year.

Young chicks: Compared with the last few years the early chicks were generally of good quality but by the third week of May the number of submissions rose sharply and the primary finding was Yolk Sac Infections with many chicks also being well below target weight. The bacteria isolated (primarily *E.coli*) were sensitive to a wider spectrum of antibiotic than in previous years.

This year saw an increase in the number of chicks with generalized bacterial infections not obviously related to yolk sac infections with *E.coli* being isolated in the majority of cases. In two batches of chicks with generalized bacterial infection the causal organism was identified as *Salmonella* – one caused by *Salmonella typhimurium* and one caused by *Salmonella indiana*. No clinical cases of Rotavirus infection were identified on laboratory testing.

Pheasant chick with generalized E.coli infection



Growing poults: Two cases of Mycoplasmosis, both from the same breeding flock of origin, were seen in three week old chicks in May and another case in young chicks from the same flock of origin was seen in June. The clinical disease in these birds failed to respond to a variety of drugs commonly used to treat Mycoplasmosis. The same problem was observed by three other veterinary practises whose clients received chicks from the same source. Further cases were identified as the season progressed. Several houses of infected birds were culled. Laboratory testing is now suggesting that the origin was likely to have been a vaccine strain of *Mycoplasma gallisepticum* or a strain closely related to the live MG 6/85 strain used to vaccinate poultry but not licensed in game birds.



Pheasant chick with Mycoplasmosis

Testing is still being undertaken to clarify just what occurred but it is possible that some pheasants were vaccinated with the live MG 6/85 vaccine and then sold to join a flock of unvaccinated birds or birds vaccinated with a killed strain of vaccine and it was from this flock that the problem arose.

Quite separately, due to the high incidence of Mycoplasmosis in the breeding flocks, numerous other cases of Mycoplasmosis were seen in growing poults usually between three and five weeks old. These tended to respond well to treatment.

Another significant problem seen this season was clinical coccidiosis affecting both the intestines and caecae. It started earlier in the pheasants than in partridges, which is unusual, and in birds as young as fourteen days old.

Enteritis was as usual a problem in many growing birds. The earliest identification of Spironucleosis (Hexamita) was on 2nd June and it continued to be identified in the majority of cases until about the end of July after which more cases of enteritis were identified with no involvement of Spironucleosis.

Released birds: Bacterial enteritis was the most common finding in released birds with levels of Spironucleosis at just under 30%. In just over 10% of cases gape worms were identified and in 15% of cases intestinal worms were present. A common finding was that, despite the majority of birds appearing healthy, a number of smaller birds were present that were losing condition. In many of these birds it was found that their main dietary intake had been cleaver seeds or later in the season blackberries which have poor nutritional value. These smaller birds were more prone to disease especially when the nights turned chilly. Suitable medication, encouraging the better birds to leave the pen to allow the poorer birds better access to the food and dealing with any other identified stresses was largely effective in dealing with these problems. In some cases the reason for the birds choosing to eat wild seeds was the presence of aerial predators so that they preferred to remain in cover. Later in the season there were a number of reported cases of Mycoplasmosis in released birds which proved difficult to treat as the birds were not necessarily taking the medicated water provided.

PARTRIDGES

Young chicks: Overall partridge chick quality appeared to be better than in 2013. One unusual case of five day old birds dying of ascites (water belly) was seen. No infectious cause was detected in the birds and the origin of the problem (hatchery, transport or farm) was not identified. The most common condition seen in birds under five days old was Yolk Sac Infection with E.coli being the most common isolate. As the season progressed a number of cases of generalized bacterial infections were seen in young partridges but unlike the pheasant chicks no Salmonella was isolated from the partridges.

Growing birds: Coccidiosis was the most significant finding in birds over three weeks old early in the season. Caecal cores related to coccidiosis were not a common finding. Generally levels of motile protozoa, such as Hexamita, associated with bacterial enteritis were much lower in partridges than in pheasants. The first case of partridges with Caecal Spirochaete Bacteria present was seen in forty-two day old birds on 7th June.

Early in the season there were also two cases of birds smothering – this was believed most likely to be due to the birds panicking due to some external noise such as a predator outside the house.



Later in the season, in birds over eight weeks old, a number of cases of Necrotic or Ulcerative Enteritis were seen. In most cases it was associated with low levels of coccidial oocysts being present. The frequency of clinical coccidiosis declined as the birds got older. In August gape worms were present in 15% of cases and intestinal worms were seen slightly more frequently in about 20% of submissions that month.

Partridge caecae showing Ulcerative Enteritis

Released birds: The most common history in released birds has been birds in poor bodily condition. Examination of these birds has not shown any significant clinical diseases in most cases. In many cases there is a history of the birds being disturbed by aerial predators and it is believed that the poor body condition is simply due to the birds being unwilling to risk going out into the open to the feeders. The other problem that has been relatively common in released birds is Mycoplasmosis but unlike the pheasants there was little evidence of infection in most cases prior to release. It is not known whether the birds were carrying the infection when released or if they caught the infection from wild birds after release.

GROUSE

From June onwards we saw young grouse from a number of moors which have failed to thrive but no one single condition was identified in all the birds.

These weak birds were seen on numerous moors, mainly below 300m, which are not physically connected and this clinical picture suggested a possible nutritional problem. It was observed by the keepers that the young birds at higher altitudes were not suffering from these problems and it was suggested that the problem had been caused by a late frost that damaged the growing shoots of the heather. As a result either the hen birds may have been short of nutrients so the later eggs produced chicks that were less viable or it may have caused a problem in the chick nutrition with the weaker chicks not competing with their stronger companions.

Cryptosporidiosis was detected on stained conjunctival smears on a number of moors and one young bird with pox was identified.



Copies of this report and previous Disease Surveillance Reports can be found on the practice website.