

Opinion

Pheasant vaccination: panacea or problem?

Mark Elliott BVSc VetMFBom MRCVS highlights the need for specific vaccines

VACCINATION TO CURE ALL OUR ILLS MAY SEEM to be the Holy Grail of the pharmaceutical industry. But, as an evolving science, it is currently not without question, including within the gamebird industry.

A good vaccine must produce long-term disease protection by inducing a 'memory bank' of cells ready to respond to exposure of an individual to a particular disease by preventing the disease taking hold and resolving it quickly. The vaccine should be effective in most of the population (85%+) to achieve 'flock/herd immunity', and should have no unwanted side effects.

In commercial poultry flocks, vaccination is logical and mostly successful, although breakdowns do occur. Put simply, initial vaccines are live but attenuated organisms, given to young birds to produce a short-term response, boosted later in life by injectable vaccines containing inactivated organisms to achieve longer-term protection, then re-boosted as required. This is highly controlled, mostly in confined, secure environments, and the problems of live vaccine virus escaping as active disease is mostly containable.

However, we potentially get a problem when we apply that system to short-term intensive outdoor rearing, with questionable biosecurity, where, by the time they might need a long-term booster, the

birds are running wild. Live vaccines can overwhelm immune systems and lead to disease. If live disease organism escapes, we have no practical way of containing it, and perhaps no way of knowing it's out until too late. And if we use live vaccines designed for other species, we risk creating mutated diseases in the 'wrong' species to which they have been given.

We arguably do not have any good vaccines specifically for pheasants yet; the vaccines we use come from chicken and turkey industries and are given in hope that they produce the protection required. A study on Turkey Rhinotracheitis vaccine showed only 33% seroconversion in pheasants (way below the 85%+ ideal), and that study did not confirm that the vaccine provided protection in the field situation anyway. For Infectious Laryngotracheitis, most incidences in the field are now thought to be escaped vaccine virus. Vaccinating pheasants with live virus may risk introducing the problem rather than solving it. For Mycoplasma, vaccination of closed flocks has reportedly produced some benefit when given over years, but has also been said to reduce productivity if the birds are not negative before vaccination.

Add in other factors such as vaccination in some cases predisposing to other

illness developing and we might create more problems than we solve.

So what should we do? With 35 million gamebirds reared each year in the UK, we are a small (but not that small) industry. We should lobby the pharmaceutical industry to produce more specific vaccines for gamebirds, based on researched need. In my view, we should not, unless absolutely necessary (and then only with more data on efficacy), be using live chicken and turkey vaccines for gamebirds.

Vaccine use must be targeted correctly to the species, be safe and effective, and not add risk to the industry.

The good news is that some useful vaccines, already in development, should soon appear. One much needed is a specific Coccidiosis vaccine and this is most likely to be the first specifically for gamebirds. This is excellent news, especially for those where resistance to the current drugs is a concern.

Until then, the irreplaceable benefits of good management in the field and good veterinary care will get us through.

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Mark is also a co-founder of the Gamebird Veterinary Group (www.gamebirdvetgroup.co.uk), a new and rapidly expanding collaboration of practices linking vets with a particular interest in gamebird health, working together to provide a competitively-priced service as well as seeking to evolve new ideas and thinking.

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Vaccines designed for chickens and turkeys are not ideal for use in pheasants.