

Hygiene Protocols for the Prevention
and Control of Diseases
(Particularly Beak and Feather Disease)
in Australian Birds

Lessons on Biosecurity from
the Poultry Industry



Australian Government

Department of the Environment and Heritage

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Lessons on Biosecurity from the Poultry Industry

Biosecurity is the term used to include all measures taken to exclude transmissible microorganisms, parasites, insects, mammals and wild birds from entering and infecting the poultry flock being protected.

The information in this section is presented as a check list, and comes from personal involvement in the poultry industry for 30 years, and recent discussions with Dr P Groves (2005).

1. Farms are isolated and protected by security perimeter fencing to exclude people, dogs, foxes, cats and native animals. Signs are posted at intervals along the fence, and at the entrance to the farm -“Restricted Entry”, “Authorised Personnel Only”. Entry is not possible without the Farm Manager’s authority, acting on Company policy.
2. Flocks are categorised as “Elite” (usually Great-Grandparent and Grandparent), and are usually duplicated in 2-4 locations in Australia. The parent level is a multiplication level and the degree of biosecurity is not as tight as with elite flocks,.
3. Personnel are not permitted to keep pigs, poultry or caged birds at home (similar pathogens that might be transmitted via personnel to birds).
4. Personnel are not permitted to visit other poultry farms or bird shows.
5. Visitors are not permitted entry.
6. Plumbers, electricians and other service-people are required not to have visited other poultry premises for at least 36 hours, and are required to shower in-shower out with complete clothing change, and any tools and equipment they bring on the premises are cleaned and disinfected prior to entry.
7. All personnel entering the farm (including vaccination teams, artificial insemination teams, catchers, etc) shower in and shower out. Clothes are left on one side of the shower, the person showers, and clothing is provided on the farm side. Entry to sub-farms within the farm is by shower in-shower out, with head cover as well. At the parent level, boots only are changed at each sub-farm.
8. A log is kept of all essential visitors. Each visitor is required to sign in and acknowledge that they have not been in contact with birds for the previous 36 hours.
9. A log is kept of all vehicles - they must pass an all-over sanitising spray at the entry point. Particular emphasis is placed on cleaning and disinfecting the driver’s floor and pedals, if he/she needs to exit the vehicle whilst on the farm. The driver must not touch anything on the farm with their hands, since steering wheels, gear levers, trafficators and so on are potent fomite surfaces. They may touch controls on the truck.
10. All coops, crates and equipment must be cleaned and disinfected prior to and after use.

11. A strong vector control program is maintained for insect, mammalian and avian vectors, by the use of bait stations, the cleaning up of feed spills, and a policy of no animals or pets at home or on-site.
12. Each building housing poultry mammal and bird-proof: fully enclosed, with no openings to the environment.
13. Vegetation around poultry sheds is mowed regularly, and debris is not permitted to accumulate.
14. All sheds on the farm are cleaned and disinfected between flocks.
15. Litter must be pesticide-free.
16. Each shed contains birds of one age - all-in, all-out.
17. All birds are observed at least twice daily, and any sick or dying birds are collected and submitted to the company laboratory. Sick and dead birds are not carried from sub-farm to sub-farm.
18. A farm communications system avoids the necessity of moving personnel around the farm. Personnel work only in assigned areas and do not go to other areas on the farm.
19. Only pellets formed at a temperature of 85-95°C are used to feed elite flocks. Food prepared while the pelletiser comes up to temperature is routed to less critical farms of the company. Protein sources (soy bean, canola meal, meat meal) are monitored for *Salmonella* spp. Flocks are also monitored for *Salmonella* spp. during their production life. To minimise the possibility of introducing *Salmonella* spp to a farm, elite flocks are fed vegetable protein only.
20. Some farms use surface water. Any solids contained in the water are removed by physical filtration or treatment with alum. Water is chlorinated to 3 ppm residual chlorine, and some farms add UV-light sterilisation. Bore water supply is checked for bacterial and chemical load. Some farms use municipal supplies.
21. In hatcheries, personnel shower in-shower out, and each person works in a dedicated area within the hatchery.
22. Vaccines are an important facet of disease control within an intensive poultry facility.
23. Some companies use bootbaths but “as a tool to reinforce biosecurity concepts”, using boots put on after shower in - shower out .

Reference

Groves P. 2005. Veterinary Consultant, Australian Poultry Industry. Personal communication