

Caring for free-range poultry after a flood

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Animal Biosecurity, Orange

Poultry owners, particularly with outdoor operations are advised to be on the look-out for animal health issues after flooding rains. This Primefact focuses on specific areas requiring additional attention when managing birds outdoors and post-flooding.

Egg hygiene

Egg hygiene is always essential. After a flooding event there may be an increase in the proportion of dirty eggs due to mud on the feathers and feet of birds. (Fig 1). These eggs must be discarded or sent for processing.

Nest boxes and egg handling equipment must be clean at all times. After flooding and periods of heavy rainfall when ranges are wet, cleaning routines may have to be undertaken more frequently to remove mud carried into poultry houses by the birds.

Range management

For free-range farms, wet range issues are a problem every time there is moderate/heavy rainfall. Whether there is

flooding or heavy rain, it creates the same problems, but over a much longer period.

During flooding or heavy rain birds in free range systems may have restricted or no access to the range, which can lead to behavioural issues. As soon as it is practical, birds need to be let outside in accordance with their usual routine.

Flood waters may impact stocking densities. Where possible, restrict birds from accessing the muddiest and water-logged sections of the range (refer to the health and welfare section below). This does not imply free range birds should remain locked up.



Fig 1. Wet range areas cause excessive mud on the feathers and feet of birds.

Options for range management include:

- Adjusting range rotations and access areas
- Moving sheds more often to ensure that birds have access to the driest areas possible (Fig 2)
- Actively deter visits to range areas by waterfowl e.g., ducks.
- Temporary exclusion fencing to prevent access to flooded or water-logged areas



Fig 2. You may need to relocate sheds to ensure birds have access to the driest areas. Source: SBS

Equipment

Ensure that any equipment that is to be disinfected is free of mud and organic matter. This is particularly important for vehicles that are being moved onto the property and into production areas.

Fencing

Ensure range fences are intact and no points for bird exit or predator entry have been created because of the flooding.

Any flood debris should be removed from the fence lines.

Water

Birds may drink any water pooled on the range. This is an animal health and biosecurity risk.

Accessing water on the range can also impact egg production as feed intake may be reduced by changes to shed and range use patterns.

Range areas should be designed and maintained to promote drainage and limit water ponding and pooling. Poultry farms must use potable town water or treated water. Be aware that your usual or typical water treatments may be affected by flood waters and not be effective in turbid water.

Health and welfare

Be aware of heightened health risks to your birds after a flooding event. Pests and diseases to be on the lookout for include avian influenza, botulism, aspergillosis, and internal/external parasites such as intestinal worms and mites.

Avian influenza (AI) is an infectious disease of birds caused by an influenza virus. AI can infect a wide range of birds, including chickens, turkeys, quails, guinea fowl, partridges, pheasants, emus, ostriches, and many aviary and wild birds, especially waterfowl such as ducks, geese, and swans.

AI is a notifiable disease under NSW legislation. There is a legal obligation to notify authorities if you know or suspect that birds are infected with this disease.

Most AI viruses cause only mild disease in birds. These are low pathogenic avian influenza (LPAI) viruses. Highly pathogenic avian influenza (HPAI) viruses can develop from certain LPAI viruses. HPAI viruses can kill 90%+ of flocks.

Infected birds may die shortly after being infected with no obvious signs or they

may show a variety of symptoms, including:

- Breathing difficulties
- Swollen head (Fig 3)
- Dark combs and wattles (Fig 3)
- Depression
- Sudden drop in egg production
- Changes in eggshell colour
- Decreased feed intake



Fig 3. Bird with swollen head, combs and wattle.
Source: USDA

Nervous signs like tremors of the head, unsteady gait, twisted necks and other unusual positions of the head and body sometimes occur.

These clinical signs are not specific to AI and can be seen in other poultry diseases.

After a flooding event, the risk of AI can increase in the 3 – 7 months following flooding due to the increase of wild bird populations, insects, and likely increased interactions with domestic birds due to infrastructure losses.

Botulism is caused by a bacterium, *Clostridium botulinum*, that lives on decaying animal and vegetable matter. Symptoms include paralysis, with birds appearing floppy and weak, drooping heads, and closed eyes. Birds can be found lying on the ground, unable to stand.

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Reduce the risk of botulism by ensuring birds do not have access to decaying food or contaminated water.

In cases of **aspergillosis**, signs can vary but when respiratory signs are present, they may be associated with nervous signs including torticollis and imbalance.

Gasping may be present with or without nasal excretion and runny eyes. Unlike infectious laryngotracheitis, the mortality in adult birds is low and the disease can be easily confused with infectious bronchitis and other respiratory pathogens if an autopsy is not done.

It is important to continue routine animal health treatment plans to address the threat of **parasites** (e.g. worms) when range areas are frequently wet. Ensure worming treatments are up to date to maintain the health of your birds.

Actions for poultry managers post flooding

- Increase monitoring of flocks for any signs of ill health and seek veterinary advice as soon as possible.
- If you experience increased numbers of sick birds or deaths suddenly, contact the Emergency Animal Disease (EAD) Watch Hotline on **1800 675 888**.
- Test bird drinking water for effectiveness of chlorination or other treatments.

Ensure feed is dry and uncontaminated. This may require cleaning feeders more regularly, filling feeders with smaller amounts more often, or changing the location of feeders.

Restrict access to any pooled water or particularly muddy areas on ranges to reduce soil borne disease exposure.

Increase checks for hygiene in nest boxes, and clean more regularly if required.

Add grating near shed access points. This may assist to provide cleaner shed entry/exits and to help reduce mud being carried into the shed by the birds.

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