

A group of yellow chicks in a brooder. In the background, a white water dispenser is visible. The chicks are standing on a bed of wood shavings. The image is used as a background for the whitepaper cover.

3 steps to prevent pododermatitis and hock burn in poultry



Whitepaper
November 2022



Three steps to prevent pododermatitis and hock burn in poultry

Pododermatitis, or footpad dermatitis (FPD) and hock burn, occur in poultry when the uric acid in faeces combines with water in wet litter and forms ammonia and CO₂. The wet litter softens the skin on the foot pads and hocks of the bird and the ammonia acts as an irritant – this appears as brown/black marks at first, but if the skin becomes damaged, these marks can develop into painful lesions or ulcers. Deep lesions can prevent birds walking normally and can act as an entry point for secondary infections.

Preventing pododermatitis and hock burn is naturally a welfare issue. Signs of hock marking and pododermatitis must be monitored and recorded as part of the Red Tractor Assurance scheme, and the guidance is that levels of hock marking should not exceed 15%. A 'hock and podo score' is also sometimes used as a key performance indicator (KPI) of overall flock welfare.

However, FPD and hock burn is also an economic issue, as severe cases can lead to bacterial infections and cause the carcass to be downgraded or even rejected. In addition to this, broiler feet are no longer simply discarded as a useless part of the bird as they were in the early eighties. The 'paw', which is the foot and the part of the leg up to the feather line, is now an important export product which can enhance the overall commercial value of the bird.

No longer a by-product

Some producers state that 'paws' are the third most valuable part of a bird now, behind the breast and the wings. Although not on the menu much in the UK, they are highly prized gastronomic delicacies in other countries, and unblemished 'paws' are very desirable.



How can we prevent pododermatitis (FPD)?

Litter stores aren't necessarily empty at the end of each flock or crop cycle, so they don't automatically fit into cleaning and disinfection processes at that time. However, cleaning and disinfecting stores is important in order to control pathogens and rodents, and this update emphasises the need to routinely clean and disinfect stores when they are empty and to have this policy documented as such in farm cleaning procedures.

Litter management

Overwhelmingly, wet litter is responsible for FDP and hock burn, so good litter management is required to prevent it from becoming excessively damp or wet.

- It is best to keep an eye on humidity within the shed and make sure that the shed is well ventilated to allow air flow to dry out damp litter. This will also help to remove ammonia from the environment.
- Making sure the shed and concrete floors are heated before the chicks arrive and before putting down litter can also help to reduce condensation arising from heat meeting cold floors.
- Any excessively damp areas should be removed and replenished with fresh, dry litter – though this is obviously tricky when the shed is populated.
- Bedding conditioners can be used in hotspot areas (eg under drinker lines), or in areas that have become wet, to absorb excess moisture and bind the ammonia in the litter.

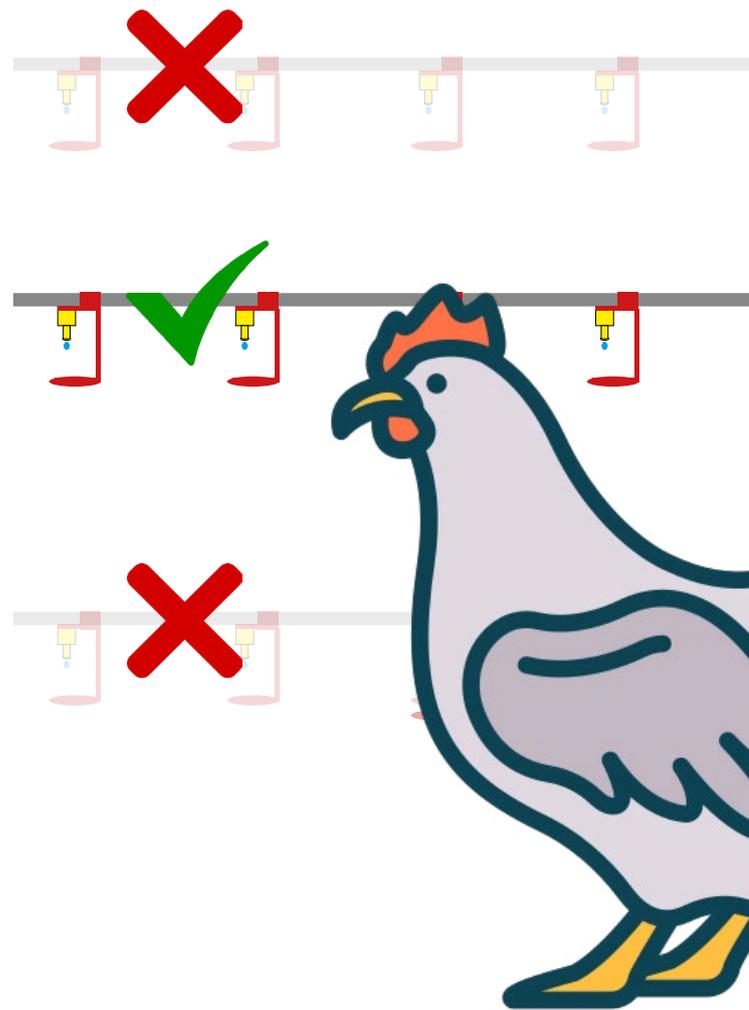
A product such as [Smite Biocare Agrisec 250](#) can absorb up to 1.5 litres of water per kilo of powder.

Drinker management

Poor drinker performance is one of the main causes of wet litter.

Litter can become excessively wet if drinkers are not placed correctly and monitored regularly. It is worth spending some time setting the drinker lines at the right level so that the birds can drink comfortably – too high and they will have to stretch on their toes and will spill water down their breast; too low and they will knock into them, causing spillages.

- The correct flow is also important – if the pressure is too high, water will end up on the litter. Flow meters can be used to measure how much water is flowing through the nipple at regular intervals.
- Drip cups under drinkers can also prevent water reaching the floor – they are also a useful monitoring aid for water management- the cup should be neither too dry or too wet.
- Good filtration of the water system can also ensure that debris does not get into nipples of the drinkers, jamming them open and dribbling water onto the floor below. Checking the drinkers regularly and observing the birds drinking is considered to be good practice anyway.



Gut health

We have written extensively about gut health at Interhatch, because its importance in overall bird health cannot be overstated. The healthy gut of a bird absorbs nutrients, hosts friendly bacteria, and maintains a barrier against unfriendly bacteria (amongst other functions), warding off a multitude of unwanted pathogens.

- When it comes to FPD and hock burn, optimising gut health is doubly a good idea, not just because it helps the bird fight any infection which may arise from open sores, but also because an unhealthy gut leads to diarrhoea, which makes the litter wet.
- Maintaining good gut health through effective water treatment (for example [Huwa-San](#)) can prevent watery faeces making litter excessively wet.
- Organic acids added to water help to control gram negative bacteria in the gut. As well as organic acids and minerals, [Agrivite Aqua BTA-8](#) contains butyric acid to support the absorption of nutrients through a healthy villi.
- Whilst 99% of FPD and hock burn is down to wet litter, we have noticed that it can occasionally be caused by the consistency of the faeces – for example, particularly sticky faeces is more likely to stay in contact with the foot or hock, thereby increasing the likelihood of lesions. In these cases, adjusting the type or amount of protein might help.



Routine checking and preventative measures = success

All poultry farmers will know that systematic monitoring of the foot pad is essential in order to identify incidences of FPD and hock burn and adopt appropriate preventative measures. Routine checking of litter around drinkers (not just underneath) can help to prevent issues early on, as can monitoring humidity in the shed. Proactively supporting gut health through nutritional support and good water filtration, and ensuring good litter and drinker management, will result in a healthier bird in a healthier environment, and a healthier bottom line too.

Thank you for taking the time to read this whitepaper – we hope you found it useful. If you have any questions about this topic or would like guidance from one of our specialists, please be free to speak to us on +44 (0)1246 264646, or email your query to sales@interhatch.com.