

Factsheet



Maintaining dry litter

Challenges for organic systems

Smaller mobile houses without climate control come with the difficulty in managing temperature and humidity making good litter quality harder to maintain. With organic poultry requiring outdoor access, more regular influxes of in house moisture can be caused by the moisture carried on birds' feet.

Why Reduce litter moisture?

- Birds cannot forage or dust bath in wet litter
- Growth of bacteria accelerates rapidly above 30% moisture
- High levels of litter moisture cause irritation and foot-pad dermatitis



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What benefits will I see if I reduce litter moisture?

Reduce the risk of feather pecking

- Wet or capped litter is frustrating for hens
- Maintaining litter is the most important thing you can do to reduce the risk of feather pecking (an abnormal redirected foraging behaviour)



Reduce the risk of lesions



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- Excess ammonia released from damp litter can cause lesions
 - Foot-pad dermatitis, hock burn and breast blister
- Damp litter alone can contribute to these conditions and is the main risk factor

Reduce the risk of disease



- Ammonia above 10ppm in the air impairs hens ability to fight respiratory disease and predisposes them to other infections
- Coccidial eggs mature more rapidly in damp conditions
- Micro nutrient deficiencies (i.e. biotin) can also contribute towards foot-pad dermatitis

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Ways to reduce litter moisture:

Litter depth and type

- You should try and maintain a sufficient depth to encourage dust bathing and diluting faeces
- Litter depth of 5-10 cm will be easier to maintain
 - Birds can help work the litter by scratching and turning it.
 - Scattering grain will encourage the birds to work the litter.
 - Birds cannot break through a thick layer of crust
- Chopped straw (preferably organic) can be used but untreated wood shaving is superior for absorbency. Use untreated wood shavings if capping is a common problem.
- Top up bedding regularly, at least several times a week in wet periods. ✓
- Frequently rake or fork the litter to make the process more manageable.
- If the house is on a slope put straw down first with wood shavings on top to reduce bare patches



Drinker design

- Manage drinkers to keep litter dry without restricting small birds
- Line drinkers (cup or nipple) are preferable to bell (reduced spillage)
- Check drinkers for leaks (1 drip per 15 seconds = 0.4 litre of water a day)



Feed quality and composition

- Too much fat or poor quality feed can result in greasy litter
- Salt levels will also impact on water consumption
 - Both can contribute to an increase in wet litter
- Monitoring water intake can help inform on feed deficiencies



House climate

- Condensation is one of the greatest sources of excess moisture
 - Improve air circulation to reduce condensation
 - Manage the ridge to prevent condensation dripping into litter
- Earth floors allow moisture to work up from the ground or where there are leaks of water from outside come in
- Good ventilation not only means that birds have fresh air but also that humidity and moisture does not build up in the house ✓

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Outdoor climate

- The impact the outdoor climate has on litter quality is a challenge
- Proactive management in winter is critical
 - Litter 5C above air temperature procures ammonia and air moisture is higher
- Manage the area outside pop holes to reduce impact
 - Place old slats, rubber mats, crates or stones down
 - Cover muddy areas with sand, wood chip or straw



Stocking rate

- Bacteria require nitrogen (faeces) and carbon (litter) to grow
- In higher stocking density or where litter is composted or reused bacteria load increases
- Provide extra covered litter outside, encouraging the birds out onto the range and reducing the pressure on the indoor litter area

