

# MANAGING WATER-DAMAGED FODDER AND OTHER FEEDS

## SOUTH-EAST AUSTRALIA

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Water-damaged fodder can be a risk to both your health and safety, and that of your herd.

### Silage

#### Effects of water-damage on silage

Bales of silage that have been inundated with water will be sodden because seepage into the baled material occurs despite being wrapped in four layers of plastic. The preservation acids in the bale are then leached, allowing air to enter rapidly and silt to deposit inside. The pH will rise and undesirable bacteria will multiply in the air, resulting in decomposition. Bales of water damaged silage appear black, oozy or slimy, and have an odour.

Silage bales that have been inundated, but not moved, by water might be salvageable. Feeding whole bales of water-damaged silage to animals enables them to freely choose the unaffected portions of each bale.

If a silage stack has been partially inundated and safe access is possible, it might be possible to move the unaffected upper section of the stack to another site. Once moved, the silage needs to be re-rolled and re-sealed. Do this quickly to minimise further losses.

#### Risks of feeding water-damaged silage

Feeding water-damaged silage is risky. Water, silt, manure and possibly some dead animal tissues will have entered the silage bales and stacks, so the risk of contamination by soil and carcase-born botulism bacteria may be quite high. An outbreak of deadly botulism is a possibility under these conditions, although it is not common.

It is best practice not to feed mouldy silage or hay to any animals as mycotoxins produced by moulds in silage can decrease the silage's digestibility and affect animal productivity and health due to the presence of mycotoxins. Refer to the fact sheet **Mould and mycotoxin risks in feed** for details on how to manage the risks of mycotoxin poisoning.

### Hay

#### Effects of water damage on hay

Hay bales that have been inundated with water may collapse under the weight of bales above them as they rot. Spontaneous combustion may also occur. In a hay stack, moisture will 'wick' its way up into drier bales immediately above, spoiling them.

Salvaging damaged hay after a flood event must be done promptly. (Bales that have started to rot can be very difficult to move with normal hay moving equipment). If possible, remove upper drier bales from the stack and store them elsewhere. Ideally, move bales that have been inundated by flood water, are subject to 'wicking' or exposed to rainfall, to another location. Alternatively, put these 'suspect' bales on top of the dry bales, to enable them to dissipate any heat build-up while re-drying. Ensure new stacks are well ventilated and protected from rain.

Only attempt to move hay when access to the hay is good, you have the appropriate equipment and a suitable alternative dry location.

## Risks of feeding water-damaged hay

Moulds develop easily on hay that has been damaged by water, especially in warm weather. Moulds can dramatically decrease the hay's digestibility and palatability, and affect animal productivity and health due to the presence of mycotoxins. Animal health issues include:

- minor illness
- reduced milk production
- reproductive failure
- abortion
- death.

Refer to the fact sheet **Mould and mycotoxin risks in feed** for details on visible signs of mycotoxin poisoning, testing hay and other feeds for mould and mycotoxin levels, and managing risks by reducing feeding rates and using mycotoxin-binding additives in mixed rations each day. If you observe signs of mycotoxin poisoning in animals, immediately seek veterinary advice.

## Feeds stored in bins

### Grain

If possible, remove any dry grain from the top and move it to another site for later use. Remove wet grain and spread it out to dry in a layer no more than 15cm deep.

### Other feeds

Pelleted feeds, protein meals and by-products may be more difficult to salvage and will begin to degrade once wetted. You may be able to still utilise these feeds for a short period, but you will need to monitor them closely for mould growth.

### ACKNOWLEDGEMENT

Parts of this fact sheet have been adapted from the Agriculture Victoria fact sheet 'Feeding livestock water-damaged fodder' (2021).