

Sheep health issues in dry seasons

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INFO



Key message

- **It is imperative for livestock producers to monitor animal health and welfare during dry seasons and to understand nutrition and husbandry requirements in the absence of the regular feedbase.**

What is the issue?

Problems with sheep health during dry seasons tend to be concentrated to a small number of factors, specifically nutrition and husbandry, which can end up causing substantial issues if not managed well. Adequate feed quality and quantity is one of the main reasons for poor animal health when the regular paddock feedbase is lacking, as supplementary feed is required in larger amounts, over a longer period of time and can be fed to livestock classes that are in different production stages than what some farmers are used to managing. The right balance of supplementary feed at the right time is imperative during dry years, as sheep cannot balance the deficiencies and/or toxicities in their diet with the regular feedbase. This, coupled with an insufficient husbandry program can lead to greater short-term health issues for sheep during dry periods and can lead to longer-term implications for the wellbeing of the flock, even

after seasonal conditions improve. This article will address some of the key health issues that sheep producers may face, particularly in dry seasons, and how they can overcome and prevent such problems in the future.

Why is this important?

Sheep that are in good condition during dry seasons generally experience very little disease or health concerns, including deficiencies/toxicities. However, if stock are stressed, then health issues are much more likely to occur and problems may be exacerbated. Therefore, it is important to regularly assess livestock condition, particularly if animals are in the production phase of their lifecycle i.e. growing (lambs, weaners) or pregnant (joining, pregnancy and lactation) and have greater nutrition and husbandry requirements. Properly condition scoring animals in the yards, as opposed to visually assessing them in the paddock is essential, in particular for sheep with more than two month's wool growth, as this gives the best indication of their health.

What can be done?

Acidosis (grain poisoning)

Grains (particularly wheat and barley) are carbohydrate rich foods and if too much is consumed by ruminants, there can be sudden changes in the microbial population in the rumen leading to the formation of large amounts of lactic acid, which causes grain poisoning. Introducing sheep too quickly to diets high in starch can also cause acidosis. Symptoms can vary significantly depending on how much grain is consumed and previous exposure to grain. Signs include scouring, acute

lameness and in extreme cases, death. Treatment is based on neutralising the excessive rumen lactic acid whereby animals should be removed from the grain source, fed good quality hay and be provided with fresh water. Drenching affected sheep with sodium bicarbonate dissolved in water (approximately 10 g to 1 L of water) can assist with recovery, however some animals may not recover. To prevent the risk of grain poisoning, it is important to introduce sheep gradually to grain and any dietary changes should be made slowly, ensuring adequate palatable roughage is available.

Enterotoxaemia (pulpy kidney)

Pulpy kidney is a clostridial disease that mostly affects lambs grazing lush feed, but can occur in all ages of sheep that are heavily grain fed. Changing diets from low to high quality feed, particularly when different feed is introduced too quickly, may lead to pulpy kidney. Initial symptoms include dullness in animal behaviour, followed by sheep going down with convulsions (leg paddling) and frothing at the mouth, then most likely death. Most sheep with pulpy kidney are found dead as the disease develops rapidly (within hours after initial signs) and carcasses will quickly decompose (animal kidneys become 'mushy' or 'pulpy'). There is no treatment for the disease, however an adequate vaccination program (given at marking, weaning and an annual booster) will prevent this issue occurring in flocks (enterotoxaemia is included in 3-in-1, 5-in-1 and 6-in-1 vaccinations).

Vitamin E and vitamin A deficiency

A lack of Vitamin E and A is associated with young animals that have had limited access to green feed or have been off green feed for over three months. White muscle disease can be a secondary outcome of vitamin E deficiency and this deficiency can also induce symptoms similar to selenium deficiency. Affected animals will go down, appear bright and alert but will be reluctant to stand and there may be sudden deaths. Symptoms of vitamin A deficiency include night blindness, eye discharges and ill-thrift. Grains and hays are particularly low in vitamin A. Treatment can be provided through a Vitamin A, D & E injection and prevention includes provision of green feed (one day of grazing is generally enough to sustain animals for approximately three months), importantly at a young age.

Calcium deficiency

Grains are low in calcium and sheep fed on grain rations for an extended time over dry periods can develop a deficiency. Symptoms include poor growth, milk fever (hypocalcaemia) in ewes, water belly and can cause an imbalance of calcium and phosphorus, which can lead to reduced appetite, soft bones and fractures. Providing 2% lime, mixed with 1% salt (grains are also deficient in sodium) to rations or ad lib in containers near water sources over dry periods and throughout pregnancy and lactation will prevent this issue.

Pneumonia

Pneumonia is generally associated with cold and wet conditions, however it can be a common occurrence in livestock in dry and dusty seasons. Yard work, eroded paddocks and young stock being fed dry and dusty feeds (milled grain and hay) can trigger bacterial infections in sheep, which may lead to nasal discharge, coughing, ill-thrift and sudden death. Pneumonia can also be detected in the abattoir, whereby there may be lasting adhesions between the lungs and chest wall, resulting in trimming and subsequent weight penalties. Prevention includes managing paddock ground cover, avoiding feeding dry and dusty feeds, and wetting yards down.

Pinkeye

Pinkeye is a common bacterial disease of sheep, especially when conditions are dusty and there are a large number of flies. It can be a major problem with livestock in confinement systems, as it can spread quickly. Weepy and cloudy eyes that appear irritated are a key sign of pinkeye and in severe cases affected sheep can go blind. Animals with pinkeye should be removed from the flock (to prevent transmission to other sheep through dust or flies) and treated regularly with pinkeye spray or powder until healed. Prevention strategies are to avoid yarding sheep in dusty conditions and monitor the flock on a regular basis.

Urinary calculi (water belly or bladder stones)

The common predisposing cause of water belly is limited water intake, which can occur as a result of poor quality water availability (faecal contamination, high salt levels, stagnant water etc.). Losses can also occur when sheep are fed on grain rations without a calcium supplement, and is more common in wethers and rams. Symptoms include straining to urinate, swelling of the abdomen and death in severe cases. Treatment is rarely successful and prevention is through ensuring livestock have constant access to good quality water and adding calcium to grain rations.

Ammonia toxicity (urea poisoning)

This problem can be caused by intake of excess amounts of urea from blocks or in mixed feed (over 15 g/animal in one feed or more than 3% of the ration). Affected sheep may tremble, walk with a proppy gait, appear bloated and may struggle to breathe. Treatment needs to be quick by drenching with water and equal parts vinegar. Urea poisoning is prevented by thoroughly mixing urea in with the supplementary feed and not exceeding 2% of the ration. Avoiding urea blocks getting wet or soft will also reduce the chance of ammonia toxicity.

Plant poisoning

In dry seasons, plants that are not generally considered toxic may be eaten in excessive amounts and can cause health issues or mortalities. One example is long-term intake of copper in the diet, or as a result of a build-up of copper associated with liver damage caused by grazing on heliotrope (potato weed), Salvation Jane (Patterson's Curse) or caltrop, whereby the disease can be brought on by some form of stress (e.g. nutritional or lactation stress). Poisoning can also show up in sheep as chronic ill thrift or photosensitisation (see EPFS Summary 2017 article on '*Primary photosensitisation in sheep in South Australia*').

Containment areas

Some diseases and health issues are more likely in concentrated mobs, such as in feedlots or containment areas. Risks such as increased internal parasites, coccidiosis and salmonella are predisposed by confining sheep and livestock producers need to be aware of these issues, monitor animals and maintain a sufficient husbandry program to prevent disease outbreak or health issues in these areas.

What does this mean?

Livestock producers in areas that are experiencing dry seasons need to be aware of the risks to animal health and welfare imposed by absence of the regular feedbase, supplementary feeding and managing stock in containment

areas, and continually monitor sheep and undertake a regular and thorough husbandry program to ensure optimum wellbeing for their flocks.

Useful resources

Contact local veterinary clinics or local animal health officers for more information regarding any of these issues. Pat Lawler is the Eyre Peninsula Animal Health Officer contact located in Port Lincoln (0408 539 060 or patric.lawler@sa.gov.au).

Feeding and managing sheep in dry times, Department of Agriculture Western Australia (DAWA), Primary Industries and Resources South Australia (PIRSA) and Australian Wool Innovation Limited (AWI), 2005.



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