



# DAGS. DON'T GET CAUGHT UP S\*\*T CREEK

Crutching costs, reduced fleece value and treatment costs associated with dags impact farm profitability. Preventing scouring and dag formation is also vital to sheep health and well-being, including decreasing their susceptibility to breech strike. *PHOTO: John Larsen*

**While there are many causes of scouring and dags in Australian sheep, high worm burdens are the main reason. Spring is when there are the most infective worm larvae on the pasture, so now is the ideal time to review your management of dags, which you can do with the help of two new publications from AWI.**

In southern Australia, managing sheep to prevent scouring and dag formation is vital to sheep health and well-being, including decreasing their susceptibility to breech strike. It will also save you from an unpleasant task of crutching and its associated labour costs, devalued wool and treatment costs.

AWI recently completed a review of the causes, diagnosis, management and treatment of scouring in sheep. The review was conducted by Dr Joan Lloyd, Dr Caroline Jacobson, Dr John Larsen and Dr Brown Besier. From the review, a manual for advisors about dealing with dag and a related fact sheet for woolgrowers have been produced.

The review team said there are many and varied causes of scouring and dags in sheep.

“High worm burdens are the main cause of scouring and dags in Australian sheep, but are not the only cause,” Dr Lloyd said.

The formation of dags is related to the

consistency of faeces, with softer faeces sticking to the wool leading to accumulation of dags. Sheep that are scouring can rapidly form dags, and once dags start forming, more faeces stick to existing dag and the problem gets worse.

Dr Larsen said the direct financial costs (see Table 1 opposite) of dags accrues from the need for crutching and the loss of value for the wool, along with treatment costs, and importantly, an increased susceptibility to breech strike. There may also be additional costs at slaughter.

## DIAGNOSING THE CAUSE

“Diagnosing the cause of scouring in a mob of sheep need not be a daunting prospect,” Dr Besier said. “In most cases, taking a systematic approach, working through the potential causes and considering appropriate risk factors – such as age of the sheep and proportion of the mob affected; region, type of pasture and rainfall; and the time of year – will elucidate the most

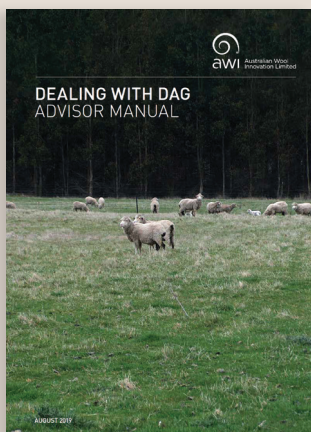
likely cause.

“In many cases, the cause of scouring will be relatively simple and directly related to a break-down in on-farm worm control programs leading to excessively high burdens of intestinal parasites.”

As such, the best approach to dealing with dags begins with considering the history of the flock and a faecal worm egg count. Results showing high counts (typically >500 eggs per gram) indicate that intestinal worms are the likely cause of scouring. In such cases, drenching with appropriate treatments can be expected to rectify the problem. However, the researchers warn that the link between scouring and worm burdens is complex, and that there are other causes of scouring and dags.

“Even on farms with good worm control programs, scouring and dag can be observed in up to 70% sheep, depending upon the area, seasonal conditions and availability of pasture,” Dr Larsen said. “In south-eastern Australia,

## Two new documents from AWI are available to help with managing dag:



### DEALING WITH DAG ADVISOR MANUAL

This 44-page manual reviews the causes, diagnosis, management and treatment of dags in sheep and provides a guide for people helping woolgrowers to manage and prevent scouring and dag formation in their animals.



### DEALING WITH DAGS - A FACTSHEET FOR WOOLGROWERS

A two-page summary document for woolgrowers of the Dealing with Dag manual.

**TABLE 1. THE TOTAL COST OF DAG FOR EWES IN EACH DAG SCORE CATEGORY.**  
Adapted from Larsen et al. (1995a) using 2019 wool prices and 2018/2019 recommended wages

ITEM	DAG SCORE					
	0	1	2	3	4	5
A. Cost of crutching (c/head)	10	20	30	60	90	90
B. Dag-weight (g)	68	115	204	380	737	1225
C. Wool yield (%)	36.4	28.5	22.9	19.8	13.6	14.4
D. Clean wool in crutchings (g) (B x C)	25	33	47	75	100	176
E. Foregone value of crutched wool* (c/head)	14	19	42	67	89	156
<b>TOTAL COST OF DAG (C/HEAD) (A + E)</b>	<b>24</b>	<b>39</b>	<b>72</b>	<b>139</b>	<b>179</b>	<b>246</b>

\* Price of fleece wool 1200 c/kg clean, crutchings from ewes with a dag score ≤ 1 and ≥ 2 are 52% and 26% of this price, respectively.

higher pasture availability with a predominance of perennial pasture species tends to be associated with more dag. In south-western Australia, the risk of dag increases in late winter or early spring with higher availability of mixed pastures (annual grasses and legumes)."

There are also circumstances in which scouring is associated with low worm burdens.

"Hypersensitivity to recently-ingested larval worms has been shown to occur in south-eastern and south-western Australia, chiefly in sheep old enough to have developed immunity to worms," Dr Larsen said. "Worm hypersensitivity scouring should be considered when all other potential causes of scouring have been ruled out in sheep with low faecal worm egg counts. Over time, breeding programs that select against dag will help minimise the problem."

It is noteworthy that the ASBVs for worm resistance and for dag formation are different, and that selection for both traits needs to be included in breeding programs to help move towards lower dag scores in a flock.

Dr Jacobson said that when faecal worm egg counts are low, the presence of other risk factors should be considered and sampling for protozoa or bacteria may be warranted.

"Scouring due to bacterial or protozoal infections may require veterinary treatments, or changes to management routines and plans for paddock use," she said.

"Protozoa and bacteria infections rarely cause scouring in older sheep. For older sheep with low worm egg counts, close examination of the diet of the sheep may uncover a cause for scouring.

"The relationship between pasture and scouring is complicated. The specific nutritional components of pasture that may trigger scouring have not been clearly identified. There also appears to be a complex relationship between diet and infections that influence severity of scouring, but these have not been well studied. Nutritional scouring is often a diagnosis of last resort, after other common causes of scouring have been excluded."

Sudden changes in diet, grain feeding and specific pasture plants may be associated with scouring. Due to the many and varied factors involved, the best option for producers is to seek expert advice from an animal health advisor or veterinarian.

Regardless of the cause of scouring in sheep, it is important to remember that in southern Australia scouring and dag formation are the major risk factor for breech flystrike, making dealing with dags a priority for sheep producers.

#### MORE INFORMATION

The 44-page Dealing with Dag manual and 2-page fact sheet are available at [www.wool.com/flystrikelatest](http://www.wool.com/flystrikelatest) or by phoning the AWI Helpline on 1800 070 099.

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