

OCTOBER 2021

Sheep reproduction RD&A alert

This sheep reproduction RD&A alert is an initiative of the Sheep Reproduction Strategic Partnership (SRSP).

Reducing ewe mortality during lambing is a high priority for the Australian sheep industry. The second SRSP webinar, on **16 November 2021 at 1.00 PM (AEDT)**, will discuss the extent of this issue in non-Merino ewes and highlight the key fitness indicators to look for when deciding whether ewes are fit to join. Andrew Whale (Livestock Logic) will examine **Ewe fitness to join, what have we learnt from case studies** and Mary McQuillan (Livestock Logic) will focus her presentation on **Reducing maternal ewe mortality**. [Register for the webinar now!](#)

Program coordinator

Dr Sue Hatcher

M: 0407 006 454

E: sue@makinoutcomes.com.au

The SRSP aims to help sheep producers to profitability and sustainably increase lamb production through increasing lamb survival and weaning rates and will coordinate a national approach to improving sheep reproductive performance.

Scientific papers

Neospora caninum is not an important contributor to poor reproductive performance of primiparous ewes from southern Australia: evidence from a cross-sectional study

Thomas Clune, Amy Lockwood, Serina Hancock, Mieghan Bruce, Andrew N. Thompson, Sue Beetson, Angus J. Campbell, Elsa Glanville, Daniel Brookes, Colin Trengove, Ryan O'Handley and Caroline Jacobson (c.bath@murdoch.edu.au)

Parasitology Research, 2 October 2021

DOI <https://doi.org/10.1007/s00436-021-07328-z>

Abstract

Neospora caninum has been implicated as a sporadic cause of abortion and perinatal deaths in sheep flocks globally. However, its significance as a reproductive pathogen for sheep in Australia remains unknown. The aims of this study were to (i) determine the seroprevalence of *N. caninum* in Australian breeding ewes and (ii) examine if natural exposure to *N. caninum* is associated with poor reproductive performance of primiparous ewes in southern Australia. Thirty flocks of primiparous ewes (aged 1–2 years old at lambing) from 28 farms in three states (Western Australia, South Australia and Victoria) were monitored between mating and lamb marking. Blood samples were also collected from multiparous mature ewes (aged 3 years or older) at each farm. Seroprevalence for anti-*N. caninum* IgG using indirect ELISA was determined for a subset of primiparous ewes that were predominantly determined to be pregnant and subsequently failed to rear a lamb ($n = 1279$) and randomly selected mature multiparous ewes with unknown reproductive status ($n = 558$). *Neospora caninum* apparent seroprevalence was 0.16% (95% confidence interval 0.03%, 0.5%) in

primiparous ewes, with seropositivity identified in two ewes from farms located in South Australia and Victoria. There was no evidence of seropositivity in mature ewes with apparent seroprevalence 0% (0%, 0.45%). These findings suggest that *N. caninum* infection was not widespread in primiparous ewes or mature multiparous ewes on these farms, and exposure to *N. caninum* infection was unlikely to explain abortion and perinatal mortalities observed for primiparous ewes.

Effect of Palpable Udder Defects on Milk Yield, Somatic Cell Count, and Milk Composition in Non-Dairy Ewes

Mandefrot M. Zeleke (M.Meaza.zeleke@massey.ac.nz), Paul R. Kenyon, Kate J. Flay, Danielle Aberdein, Sarah J. Pain, Sam W. Peterson and Anne L. Ridler

Animals Volume 11(10) October 2021 **OPEN ACCESS**

DOI <https://doi.org/10.3390/ani11102831>

Simple Summary

The occurrence of udder defects in ewes impacts the productive lifespan of the affected ewe and reduces their lamb production. This study investigated the effects of palpable udder defects on milk yield and milk composition in Romney ewes. The findings showed that the effect of udder-half defects on udder-half milk yield was substantial; however, there was no difference in individual (whole udder) ewe milk production between ewes with one udder-half defective and both normal udder-halves. This was due to a compensatory increase in milk production of the normal udder half when the other udder half was defective, with the exception being ewes that retained the defects for several weeks. No notable difference in milk composition was observed between defective and normal udder halves, except for solids non-fat (SNF). This study shows that udder defects affect milk production in non-dairy ewes, highlighting the potential effects on lamb production.

Abstract

In non-dairy ewes, udder defects hinder the survival and weight gain of their pre-weaned lambs. The objectives of this study were to determine the effects of palpable udder defects on milk yield, somatic cell count (SCC), and milk composition in non-dairy Romney ewes. Ewes with a history of udder defects or normal udders were selected for the study. Of a total of 48 ewes that lambed, 30 ewes reared at least one lamb, and were milked six times, once weekly, for the first six weeks of lactation. Udder halves were palpated and scored at each milking event. Multivariate linear mixed models examined the impacts of udder defects on udder-half and whole-udder milk yield, SCC, and milk composition (fat, protein, lactose, total solids, and solids non-fat (SNF)). Across the six examinations, 24.7% of the total 352 udder-half examinations were observed to be defective. Udder halves that were defective at least once produced on average 57.9% less ($p < 0.05$) milk than normal udder halves, while normal udder halves with a contralateral defective half yielded 33.5% more ($p < 0.05$) milk than normal udder halves. Successive occurrence of both hard and lump udder defect categories in an udder-half, udder defect detection early in lactation, and a high frequency of udder defect detection were all associated with udder-half milk yield loss ($p < 0.05$). At the whole-udder level, no differences in milk yield ($p > 0.05$) were observed between those with one udder-half defective and both normal udder-halves. However, udders in which one udder half was categorised as hard but progressed to lump and remained as lump until 42 days of lactation produced less ($p < 0.05$) milk compared with normal udders. With the exception of SNF, there were no significant associations ($p > 0.05$) between milk composition parameters and udder defect. Overall, these findings emphasise the importance of udder health in non-dairy ewes and the potential effect of udder defects on their lambs.

Upcoming events

Date	Event	Location
4 November 2021	Pre-joining Ewe Nutrition Sheep Connect NSW	Webinar
16 November 2021	Breeding ewe fitness and maternal ewe mortality Sheep Reproduction Strategic Partnership (SRSP)	Webinar
11 November 2021	Winning With Weaners Sheep Connect NSW	Boorowa, NSW