25 June 2025

Carolina Diaz
Program Manager, Animal Wellbeing and Industry Resilience
Australian Wool Innovation Limited
Level 3
24 York Street
Sydney NSW

Dear Carolina,

RE: AVA REPORT ON PROGRESS OF AWI RD&E FLYSTRIKE PREVENTION PROGRAM

On 13th June 2025 AVA appointed auditors Dr Graham Lean and Professor Bruce Allworth, joined you, and April McLeod (Geoff Lindon was a late apology) as representatives of Australian Wool Innovation Limited (AWI) to conduct a review of progress of AWI's Flystrike Prevention program against Research, Development and Extension milestones. Dr Forbes Brien and Professor Peter James

The report detailing the AVA appointed auditors findings is attached.

If you require further details or clarification of any points raised, please do not hesitate to contact me.

Yours sincerely,

Dr Gemma Chuck National President

C Mr John Roberts
c CEO
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Innovation
Level 3
24 York Street
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REPORT BY AVA APPOINTED AUDITORS AFTER REVIEWING THE PROGRESS OF AUSTRALIAN WOOL INNOVATION'S FLYSTRIKE PREVENTION RESEARCH, DEVELOPMENT, EDUCATION, EXTENSION and COMMUNICATION (RDEEC) PROGRAM AGAINST THEIR OBJECTIVES.

June 2025

Scope of Review:

This review is intended to provide an independent assessment and review of the progress that Australian Wool Innovation (AWI) has made in its Flystrike RDEEC program against the published milestones and objectives since the last report in June 2024.

The report is primarily aimed at informing wool growers and overseas retailers utilising Australian wool of progress and developments in the area of Flystrike prevention, and is a consequence of an undertaking in 2005 to overseas manufacturers and retailers of clothing incorporating Australian wool by the Australian wool industry.

Approach:

A review of the AWI research program was held between independent auditors appointed by the Australian Veterinary Association (Dr Graham Lean and Professor Bruce Allworth) and AWI (Ms Carolina Diaz, Mr Geoff Lindon and Ms April McLeod) by meeting on 13 June 2025 online. Written reports from AWI together with relevant verbal reports were provided across a range of areas. Drs Peter James and Forbes Brien also attended to complete their separate Genetic Review.

Findings:

AWI continues to invest in research aimed at decreasing breech strike and specifically to decrease the reliance of wool producers on mulesing. The planned AWI Sheep Health and Welfare program budget for 2024/25 was \$A1.0 m (down from \$1.4 m in the previous year) of which over 85% is directed at activities to better manage flystrike. It should also be noted that while the original thrust of the AWI flystrike research program was aimed at managing breech strike only, a number of current research programs are now aimed at managing fly strike in general. There is an ongoing focus on extension of control methodologies. A number of the projects have resulted in the production of papers for publication in scientific journals and extension articles for sheep producers. Over the past year, AWI managed a total of 14 projects, including 12 ongoing projects and 2 projects completed during the reporting period. This work, while still focused on finding alternatives to mulesing, continues to support much broader sheep welfare outcomes. In this reporting period there is continuing emphasis specifically on blowfly chemical resistance and modelling, as well as a strong emphasis on flystrike prevention extension activities. The growing emergence of blowfly chemical resistance over recent years has made this work more of an imperative. It was noted that budget constraints are affecting project development.

AWI flagged a change in their next Strategic Plan for 2025-2028. They will no longer have a separate strategy specifically targeting flystrike. Instead, specific flystrike initiatives will be integrated into broader AWI programs, which is outlined at

https://www.woolmark.com/industry/sustainability/woolmarkplus/ and the next AWI Strategic Plan for 2025-2028. Further, the Wool 2030 Pillar 1 is caring for animals and the environment, and includes a target to protect sheep against flystrike as growers phase out mulesing. See https://www.wool.com/globalassets/wool/about-awi/how-we-consult/wool-2030-strategy/wool-2030-strategy.pdf

Non-Invasive Management Practices (5 projects - 2 completed, 3 ongoing (2 further bridging projects are planned) is an important area of current research activity, with emphasis on better understanding and dealing with chemical resistance, sterile insect control, novel semiochemical control, novel blowfly targets and Nanotechnology and Tea Tree Oil.

Breeding and selection (3 projects, all ongoing) research work is now focussing on acquiring and utilising genomic data as well as resilience. Work to date looks promising, with genomics likely to

provide an increase in the rate of genetic improvement, particularly around hard-to measure traits associated with breechstrike. It would be beneficial to see work enumerating the specific gains producers can make using this technology. It appears that Merino resilience has not been compromised by genetic gains to date, unlike other farmed animals species.

Analgesia and Anaesthesia remains a focus for the Program, but there are currently no research projects being undertaken, but it remains a high priority.

Education, Extension and Promotion (6 projects, all ongoing) continues to focus on the support of the successful ParaBoss website and extension activities with advisers and producer groups. A number of extension / training events have been held in the past 12 months focussing on trainer education to move to supporting producer decision-making in the managing of flystrike, including moving to a non-mulesed system. An online lamb marking course has also been developed and is now available to growers. AWI continues to support the Sheep Sustainability Framework, which provides some objective data on level of mulesing, availability of non-mulesed wool, and adoption of pain relief.

A description of current projects and some commentary is provided below.

Table 1. Progress for AWI's Flystrike Prevention Program, Jun 2025

	Current Projects	Current work / Progress	Comments
Breeding and selection (3 projects)	Genomics Projects (2). Resilience Project.	Three (3) projects underway to enable producer to better select for resilient/resistant sheep	Use of genomic data to better identify flystrike resistant genotypes. Looks promising for increasing industry genetic progress.
Non-invasive Management Practices (5 projects)	Chemical Resistance Project (completed). Fly biology (3). Sterile fly release – Kangaroo Island.	Chemical resistance project shows resistance widespread. Modelling being used to assist producers. Further work planned. Sterile fly project on KI meeting obstacles.	Main focus of projects on better understanding of fly biology. Sterile fly project experiencing delays due to difficulty in producing sufficient flies for release.
Analgesia and Anaesthesia	No current projects		Remains a high priority.
Education, Extension and Promotion (6 projects)	Lamb marking Course. Producer/advisor webinars /workshops ParaBoss support Sheep Sustainability Framework support	4 Train the Trainer Workshops- Stratefly (2), AmpliFly (2) 1 Woolgrower workshops- SimpliFly (1). Classify workshop delayed due to seasonal conditions.	On-going commitment for research outcomes to be applied on-farm. Focus is on producers understanding fly risk, and supporting those moving to non-mules.