

# ALFA's Shade Initiative

**Our journey towards having all feedlot cattle with access to shade**

Report - December 2025

The ALFA logo is displayed in a bold, white, sans-serif font. The letters are stylized, with the 'A' and 'F' having unique shapes. The logo is positioned on a dark blue background that is part of a larger graphic element in the bottom left corner of the page.

**ALFA**

AUSTRALIAN LOT FEEDERS' ASSOCIATION

# ALFA's Shade Initiative – Our journey towards having all feedlot cattle with access to shade

## INTRODUCTION

The Australian Lot Feeders' Association (ALFA) launched our Shade Initiative in 2020 with the primary objective of encouraging all cattle on feed in Australian National Feedlot Accredited Scheme (NFAS) accredited feedlots to have access to shade by 2026.

ALFA's Shade Initiative seeks to advance animal welfare, production efficiency, and long-term sustainability through the provision of shade and covered housing infrastructure within Australian feedlots.

With investment in research, development and adoption from Meat & Livestock Australia (MLA) using grain fed levies matched by federal government investment, ALFA's leadership and strong support from ALFA members, the initiative has been highly successful in accelerating industry awareness and adoption of shade.

Since launching the Initiative, shade adoption has increased to 75.1% of constructed capacity or 1,328,681 million cattle, up from 56.3% or 810,376 head in 2020.

As part of the initiative, shade in a feedlot was defined as a specially engineered structure designed to provide shade/shelter to livestock at a minimum rate of 70% UV protection. Shade should be available to all feedlot pens<sup>1</sup> at a minimum rate of 1.5m<sup>2</sup> per head of cattle.

A range of shade and shelter designs have been evaluated, and new designs continue to emerge to suit a diverse range of feedlot operations and climatic conditions. Despite cost and construction challenges, the feedlot industry has embraced the benefits of shade, with infrastructure continuing to be installed.

ALFA encourages shade adoption as a proactive measure that reflects industry commitment to continuous improvement in animal welfare. ALFA recognises that the ongoing success and sustainability of the feedlot sector depend on maintaining strong animal welfare outcomes and meeting evolving community expectations.

## BACKGROUND

Prior to the launch of the ALFA Shade Initiative, two years were spent investigating a risk-based approach utilising Heat Load Index (HLI) thresholds to establish the welfare risks associated with cattle type and location to determine where shade could potentially address risk. Ultimately, it was concluded by ALFA, MLA and the researchers' involved that the algorithm required to establish a need for shade based on cattle type and specific geographical location was not robust enough and would therefore result in inconsistent applications across the feedlot sector.

During this time the benefits of shade to animal welfare and productivity became more evident through our deliberations and further research. It is widely documented by researchers that shade leads to welfare improvements relative to the Five Domains, independent of breed and geographical location.

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<sup>1</sup> All pens include hospital pens, bunk feeding pens, entry/induction pens and exit pens.

Animal welfare is a paramount priority for the Australian feedlot industry. Research shows<sup>2</sup> shade enables cattle to display natural behaviour by facilitating improved self-thermal regulation, aiding in their mental state and mitigating heat load risk. MLA’s Consumer Sentiment Research<sup>3</sup> highlights that Australians want to know that we care for our animals, be assured that they are happy and content, and that we are continually striving to meet animal welfare needs.

ALFA concluded that this initiative was an industry leadership position. It was acknowledged that taking a proactive approach to encourage shade adoption across the feedlot industry would deliver improved animal welfare, productivity, and ultimately better position Australian feedlots for long term sustainability.

SHADE ADOPTION PROGRESS TO DECEMBER 2025

Since the launch of the initiative in late 2020 the number of cattle at any one point in time with access to shade in Australian feedlots has increased by 518,305 head.

In June 2020, 810,376 cattle had access to shade in Australian feedlots, representing 56.3% of the constructed capacity of [National Feedlot Accreditation Scheme \(NFAS\)](#) accredited feedlots. By December 2025, this number has increased to 1,328,681 cattle representing 75.1% of the constructed capacity.

As many market categories of cattle allow multiple turns per year, this increased adoption has resulted in 2,584,861<sup>4</sup> additional cattle benefiting from the provision of shade.

This growth in cattle with access to shade has occurred during a period of considerable growth in the Australian feedlot industry. Overall constructed capacity of NFAS accredited feedlots has increased from 1,439,069 head in June 2020 to 1,768,503 head in December 2025, a 23% increase in cattle capacity.

Increases in the number of animals with access to shade have occurred in all lot feeding states. The following table shows the increase in the number of cattle with access to shade and the relative percentage of feedlot capacity in each state and nationally from June 2020 to December 2025.

Table 1. Number of cattle with access to shade and the percentage of constructed capacity for each state and nationally.

| Date          | QLD     | NSW     | VIC    | SA     | WA     | TAS   | NATIONAL  |
|---------------|---------|---------|--------|--------|--------|-------|-----------|
| June 2020     | 508,664 | 237,238 | 38,494 | 17,880 | 4,950  | 3,150 | 810,376   |
|               | 62.3%   | 57.1%   | 52.9%  | 36.0%  | 6.6%   | 30.0% | 56.3%     |
| December 2025 | 809,984 | 388,783 | 48,679 | 45,110 | 32,525 | 3,600 | 1,328,681 |
|               | 81.8%   | 74.4%   | 61.8%  | 53.9%  | 39.9%  | 30.0% | 75.1%     |

The following graph shows the steady increase in the number of cattle with access to shade nationally and the increase in the percentage of constructed capacity that these cattle represent.

[‘Unlocking the Benefits of Shade’](#)

<sup>4</sup> Based on 2020-2025 cumulative additional capacity with access to shade multiplied by turnoff proportion.

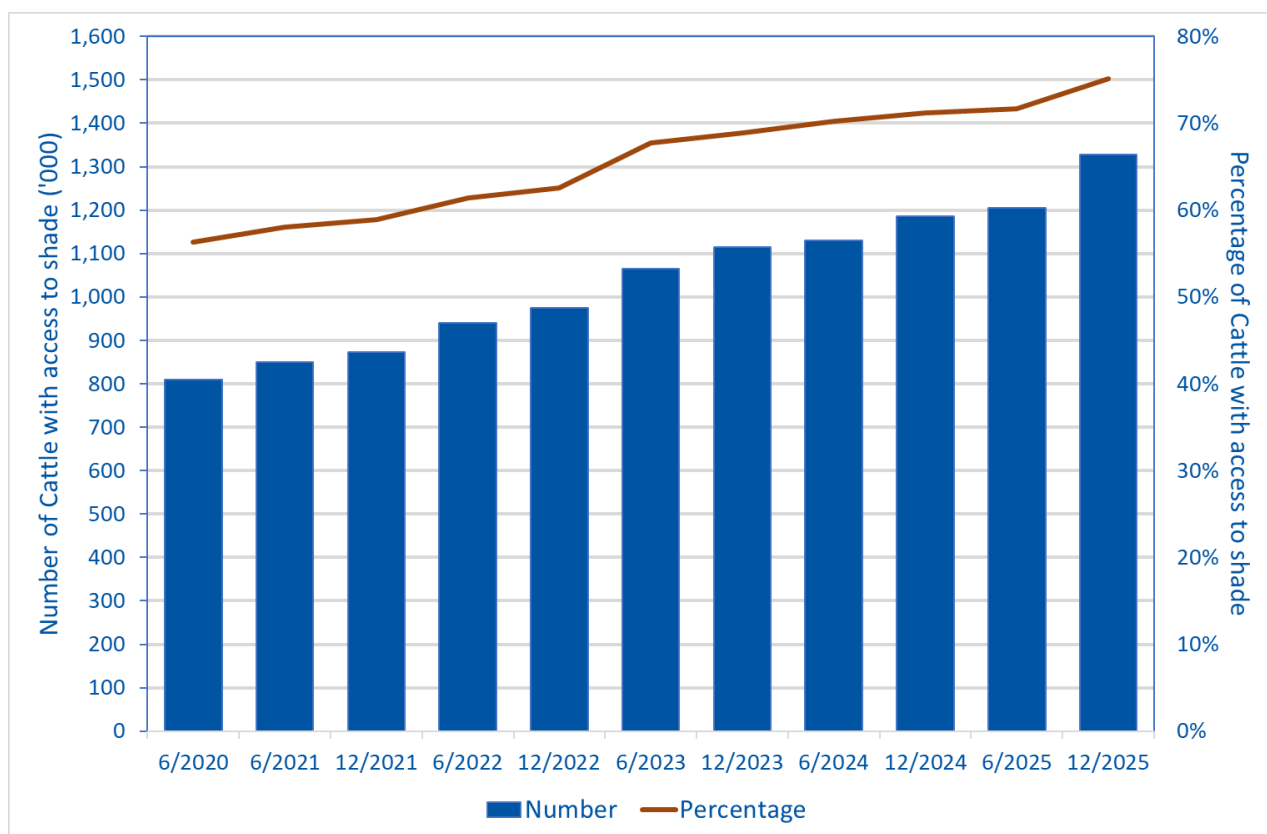


Figure 1. Number of cattle with access to shade and percentage of constructed capacity from June 2020 to December 2025.

## FEEDLOT INDUSTRY ANIMAL WELFARE GAINS

Animal welfare has historically been described through the Five Freedoms. These state that, throughout its life, an animal should be free from hunger, thirst and malnutrition; free from thermal or physical discomfort; protected from pain, injury and disease; able to express normal behaviours; and free from fear and distress. More recently the model has been updated to the Five Domains.

Since the launch of ALFA's Shade Initiative an additional 2,584,861<sup>5</sup> head of cattle in feedlots have been at less risk of heat, have higher comfort levels and can express natural behaviour through choice to thermo-regulate.

This gain is an active advancement of the industry's commitment to the Five Domains model of animal welfare.

## FEEDLOT INDUSTRY PRODUCTIVITY GAINS

In the latest MLA shade research, [Evaluation of the benefits of shade for feedlot cattle in a temperate region, B.FLT.4013](#)<sup>6</sup>, cattle with access to shade were found to have an increase in weight gain of 0.13 kg/head/day over the summer period. This equated to an extra 11.86 kg of liveweight or 6.2 kg of carcase weight. Using this weight gain alone, the study calculated a shade capital cost payback period of between 2 and 10 years, depending on shade capital cost and carcase prices.

Extrapolating these results to the additional 518,305 cattle provided with access to shade in Australian feedlots in 2025, this will result in an additional 6,147 tonnes of liveweight or 3,213 tonnes

<sup>5</sup> Based on 2020-2025 cumulative additional capacity with access to shade multiplied by turnoff proportion.

<sup>6</sup> [B.FLT.4013 - Evaluation of the benefits of shade for feedlot cattle in a temperate climatic region](#), David W Miller, Fiona Anderson, Anne Barnes, Teresa Collins, Liselotte Pannier, Joshua Aleri and Shane K Maloney, Murdoch University and The University of Western Australia, 2024.



of grain fed carcase weight produced over the 2025/26 summer. At current prices, this equates to an additional \$28.1 million return to Australian lot feeders due to the extra weight gain alone.

The cumulative impact of the increased access to shade from 2020 has been estimated at an additional return of \$67.67 million to Australian lot feeders<sup>7</sup>.

## EXTENSION ACTIVITIES TO SUPPORT DECISION MAKING AND ENCOURAGE COMMERCIAL ADOPTION

Since launching the Shade Initiative, ALFA, in partnership with MLA, have invested in a range of extension and communication activities delivered through workshops, webinars, training courses and online resources.

This has involved delivering shade communication to over 3,000 feedlot owners, managers and staff at 57 extension activities including 4 face-to-face training events, 4 webinars, 42 face-to-face workshops, incorporating information at 6 major industry events, 1 in-field bus tour and over 500 face-to-face feedlot visits since 2020. In addition, ALFA's dedicated [Shade Hub](#) has been viewed over 5,000 times by over 3,000 unique visitors.

These activities aimed to increase awareness of the welfare and productivity benefits of shade whilst providing technical guidance on matters such as shade infrastructure types and best practice construction. This has enabled lot feeders to make well informed and scientifically backed decisions when making commercial investments in choosing appropriate shade or shelter solutions for their local environment and climate.

| Timeline      | ALFA Shade Extension Activity   |
|---------------|---|
| November 2020 | <p><b>ALFA Shade Initiative Launch Webinar – Feedlot Operators</b></p> <p>ALFA launched the Shade Initiative in November 2020 with the 'Understanding the Benefits of Shade' Webinar.</p> <p>Presenters included then-ALFA President, Bryce Camm of Wonga Plains Feedlot, feedlot operators Tom Green of Thomas Foods International Feedlot, Scott and Katie Lloyd of Wieambilla Feedlot, and Scott Braund of Mort &amp; Co. Attendees also heard from leading scientists Dr John Gaughan and Dr David Miller who outlined the animal welfare benefits of shade. The webinar also included a presentation by the National Australia Bank on due diligence and financing capital.</p> <p><b>ALFA Shade Initiative Launch Webinar – Service Providers and Stakeholders</b></p> <p>A similar, but separate webinar was held for key service providers of feedlots such as Veterinarians and Nutritionists, together with external stakeholders, to inform them of the initiative and the activities and resources in place to support lot feeders.</p> |
| November 2020 | <p><b>ALFA Shade Hub Launch</b></p> <p>ALFA's dedicated <a href="#">Shade Hub</a> was launched, providing lot feeders with tools and information to understand the benefits of shade and assist with the selection of the</p>   |

<sup>7</sup> Return based on increase in the number of cattle with access to shade in December of each year compared to 2020, productivity gains over summer months from B.FLT.4013 and HSCW prices for 100-day grainfed cattle in February 2022-26 from southern processor.

|                |  |
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|                | <p>appropriate shade structure for their feedlot. The hub includes a range of key resources, case studies and frequently asked questions for feedlot operators.</p> <p>Since launch, ALFA's Shade Hub has been viewed over 5,000 times by over 3,000 unique visitors.</p>  |
| November 2020  | <p><b>ALFA's 'Unlocking the benefits of Shade' Handbook</b></p> <p>ALFA published the <a href="#">'Unlocking the benefits of Shade'</a> Handbook, which contains information on the benefits of shade to animal welfare and feedlot productivity, the design and construction of shade and answers to frequently asked questions.</p>  |
| April 2021     | <p><b>WALFA 'BetterBeef 21'</b></p> <p>At the West Australian Lot Feeders' Association (WALFA) 'BetterBeef 21' event, Bryce Camm, then ALFA President presented on the ALFA Shade Initiative and social license and Tom Green, Iranda Feedlot, presented on shade benefits and feeding through winter, and our ALFA/MLA Technical Services Officer (TSO), Jeff House, presented on the latest research and benefits of shade.</p>  |
| February 2022  | <p><b>ALFA/MLA Feedlot Shade Research webinar</b></p> <p>The webinar extended the research findings of MLA research projects in relation to feedlot shade structures suitable for Australian feedlots.</p> <p>157 people attended the ALFA/MLA Feedlot Shade Research webinar.</p>   |
| April 2022     | <p><b>ALFA/MLA Animal Welfare Officer Training</b></p> <p>ALFA/MLA Animal Welfare Officer Training was conducted where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>162 people attended the ALFA/MLA Animal Welfare Officer Training.</p>   |
| September 2022 | <p><b>ALFA Nutrition and Milling workshops</b></p> <p>ALFA Nutrition and Milling workshops were conducted where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>168 people attended the ALFA Nutrition and Milling workshops.</p>  |
| March 2023     | <p><b>ALFA / WALFA 'Going Under Cover' information and networking event</b></p> <p>ALFA, along with MLA, joined forces once again with WALFA to present the 'Going Under Cover' information and networking event. This event aimed to amplify the findings of MLA research projects related to shade and covered housing structures, promoting their understanding and adoption in Australian feedlots. Major sponsors MLA and Nutriment Health, along with event partners Eagle Direct, Auspan/Entegra, Polytex, West Tarp, and NetPro Canopies, played a crucial role in making this event a success. The session served as a valuable lead-in to the WALFA's BetterBeef event.</p> <p>103 delegates attended the ALFA / WALFA 'Going Under Cover' information and networking event.</p> |

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| May 2023       | <p><b>ALFA/MLA 'Going Under Cover' bus tour</b></p> <p>ALFA and MLA organised the four-day 'Going Under Cover' bus tour to explore shade and covered housing systems fit for Australian feedlots and to disseminate MLA research project findings about shade and shelter options for Australian feedlots.</p> <p>This initiative aimed to enhance comprehension and adoption of shade solutions in a practical setting. The tour included visits to multiple feedlots in southern Australia showcasing diverse shade systems. It allowed lot feeders to directly learn from their peers about the benefits of these structures. Topics which were covered included barriers to adoption, financing, animal welfare advantages, research results, and access to resources including design guides and manufacturers. Thanks to the support of MLA, as the major sponsor, and tour partners such as Action Steel, Entegra Signature Structures, Central Steel Build, Biolinks4Plants, Raroola Structural, Spanlift, Eagle Direct, and Risk Pass, this inaugural feedlot tour achieved remarkable success and was widely praised by delegates.</p> <p>48 delegates attended the 'Going Under Cover' bus tour.</p> |
| August 2023    | <p><b>ALFA/MLA online Animal Welfare Officer Training</b></p> <p>ALFA/MLA online Animal Welfare Officer Training was conducted where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>87 people from 30 feedlots attended the online Animal Welfare Officer Training.</p>  |
| September 2023 | <p><b>ALFA Animal Health and Welfare workshops</b></p> <p>ALFA Animal Health and Welfare workshops were conducted where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>154 people from 57 feedlots attended the ALFA Animal Health and Welfare workshops.</p>  |
| September 2023 | <p><b>MLA 'Feedlot Covered Housing Manual'</b></p> <p>MLA published the <a href="#">'Feedlot Covered Housing Manual'</a>, a document built upon the best available knowledge from around the world for covered housing and shade systems, along with knowledge gained from visits to a variety of covered housing systems operational in Australia. The manual details design, construction, regulations, bedding, manure management, welfare standards, animal health considerations, and costs of these systems compared to best practice open feedlot pens.</p>  |
| October 2023   | <p><b>SmartBeef23 'Reaching for the Roof: Partial and Covered Housing Rotation Station'</b></p> <p>SmartBeef23 was held on site at Elders Killara Feedlot and included the 'Reaching for the Roof: Partial and Covered Housing Rotation Station'.</p> <p>Representatives from MLA, Rangers Valley Feedlot and Elders Killara Feedlot outlined progress of ALFA's Shade Initiative and the latest shade research results. Lot feeders presented their practical experiences about the shade structures they had installed.</p>   |

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|                | 379 people attended the SmartBeef23 event.  |
| March 2024     | <p><b>ALFA Nutrition and Milling workshops</b></p> <p>ALFA Nutrition and Milling workshops were conducted where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>132 people from 54 feedlots attended the ALFA Nutrition and Milling workshops.</p>  |
| June 2024      | <p><b>ALFA/MLA 'Partial Covered Housing Systems' webinar</b></p> <p>In conjunction with MLA, ALFA hosted the 'Partial Covered Housing Systems' webinar. The webinar showcased the benefits of partial covered housing systems in Australian feedlots aimed at supporting Australian Lot Feeders in their decisions relating to shade and shelter infrastructure. For lot feeders looking to retrofit existing feedlot pens with either shade or shelter, partial coverage is a very viable option, with solid data on improved performance and animal welfare presented as part of the webinar.</p> <p>80 people attended the ALFA/MLA 'Partial Covered Housing Systems' webinar.</p> |
| August 2024    | <p><b>ALFA/MLA Animal Welfare Officer Training</b></p> <p>ALFA/MLA Animal Welfare Officer Training was conducted where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>114 people attended the ALFA/MLA Animal Welfare Officer Training.</p>  |
| September 2024 | <p><b>WALFA Spring Field Day</b></p> <p>WALFA's 'Spring Field Day' included a presentation on Covered Housing Research and Development and Feedlot Animal Welfare Standards by our ALFA/MLA TSO.</p>  |
| October 2024   | <p><b>BeefEx24 Research and Development Plenary Session: 'Partial Covered Housing Systems'</b></p> <p>The findings of the <a href="#">partial feedlot covering research</a> and what it means for the industry was presented by Dr Melissa George, Bovine Dynamics at the BeefEx24 Research and Development Plenary Session.</p> <p>808 registered delegates attended BeefEx24 with 26 of these from under 1,000 head feedlots. There were also 78 exhibitors who attended the event.</p>   |
| March 2025     | <p><b>WALFA 'BetterBeef 25'</b></p> <p>WALFA's 'BetterBeef 25' event included a panel session on Sheds and Shelters in Feedlots with representatives from three Western Australian feedlots and our ALFA/MLA TSO providing valuable input and discussion.</p>   |
| April 2025     | <p><b>ALFA Animal Health workshops</b></p> <p>ALFA Animal Health workshops were delivered where our ALFA/MLA TSO presented on ALFA initiatives, including shade.</p> <p>142 people from 50 feedlots attended the ALFA Animal Health workshops.</p>  |



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| July 2025      | <p><b>ALFA/MLA online Animal Welfare Officer Training</b></p> <p>ALFA/MLA online Animal Welfare Officer Training was delivered which included our ALFA/MLA TSO presenting on ALFA initiatives, including shade.</p> <p>25 people from 15 feedlots attended the ALFA/MLA online Animal Welfare Officer Training.</p>  |
| September 2025 | <p><b>ALFA EAD Biosecurity workshops</b></p> <p>ALFA EAD Biosecurity workshops were delivered with our ALFA/MLA TSO presenting on ALFA initiatives, including shade.</p> <p>220 people attended the ALFA EAD Biosecurity face-to-face workshops provided for feedlot operators and 29 people attended the ALFA EAD Biosecurity Webinar provided for service providers.</p>   |
| 2021-2025      | <p><b>One-on-One visits with Feedlot Operators</b></p> <p>Our ALFA/MLA TSO conducts 100 face-to-face feedlot visits annually across Australia providing technical assistance and the latest research findings from MLA's Feedlot Research Program to feedlot operators. Since the launch of ALFA's Shade Initiative, our TSO has conducted over 500 visits on feedlot creating awareness about the benefits of shade on cattle welfare and productivity and extending research findings from MLA's shade and shelter research.</p> |

## COMMUNICATION ACTIVITIES TO SUPPORT DECISION MAKING AND ENCOURAGE COMMERCIAL ADOPTION

ALFA and MLA have offered further support to lot feeders implementing shade and continued to promote shade adoption via the delivery of engaging content.

This has included videos, case studies and articles, all housed on the dedicated [ALFA Shade Hub](#) and delivered through our 'Around the Pens' newsletter, the ALFA Journal and via direct communication channels.

This content has included:

- It pays to have shade, with QLD lot feeder Barry Rich and ALFA TSO
- How shade delivers benefits at Iranda Feedlot, SA
- Why shade is important to Killara Feedlot, NSW
- Benefits of shade clear at Jalna Feedlot, VIC
- Why shade is important and how to decide the best system for your operation
- Shade providing benefits to cattle and people alike at Angora Feedlot
- Long Gully's owner sheds light on the benefits of shade
- Building productivity: How shade changed the game at Mayura's 'Moo Cow Motel'
- The benefits of shade at West Wimmera Beef
- Hay sheds, an economical solution to providing cattle shade in feedlots
- Going Under Cover Feedlot tour a success
- Raroola Structural - Feedlot Shade Structure Construction
- Why shade is important for Thomas Foods Feedlot
- Animal wellbeing focus delivers results in new shade study, Kylagh Feedlot WA

## RESEARCH AND DEVELOPMENT INVESTMENT

Through research, development and adoption activities, MLA's feedlot investments' aim to increase the productivity and profitability of feedlots, reduce operation inputs and costs, and underpin the sustainability of the feedlot sector. This is achieved through the development and implementation of tools and technologies to reduce the impact of animal disease, improve animal welfare and reduce operational costs.

In consultation with the ALFA's Research and Development Committee, MLA have completed a range of feedlot shade and shelter projects to better understand welfare and productivity benefits and construction. This work has aimed to assist feedlot operators when making commercial investments in choosing shade solutions for their local environment, backed by the latest available science and information.

This investment, using Research and Development Grain Fed Levies matched with Federal Government investment, has totalled \$3,574,225 to date and a further \$2,471,000 is currently being invested in further research.

Following is a list of the reports published on the MLA website:

| <b>MLA Shade Research and Development – Completed</b>   |
|---|
| <b>Assessment of varying allocations of shade area for feedlot cattle – Part 1</b> (120 days on feed), <a href="#">B.FLT.0337</a> , September 2008. |
| <b>Assessment of varying allocations of shade area for feedlot cattle – Part 2</b> (182 days on feed), <a href="#">B.FLT.0344</a> , December 2008.  |
| <b>Assessment of betaine and glycerol as ameliorants of heat load in feedlot cattle</b> , <a href="#">B.FLT.0345</a> , March 2009.                  |
| <b>Impact of night-time cooling on heat load in feedlot cattle</b> , <a href="#">B.FLT.0150</a> , August 2019.                                      |
| <b>Animal welfare benefits of feedlot shade – a review</b> , <a href="#">B.FLT.4014</a> , November 2020.  |
| <b>Evaluation of shade and shelter solutions in a southern Australian feedlot</b> , <a href="#">B.FLT.4009</a> , August 2022.                       |
| <b>Feedlot covered housing systems – best practice design and management guide</b> , <a href="#">B.FLT.4018</a> , May 2023.                         |
| <b>Evaluation of the benefits of shade for feedlot cattle in temperate climatic region</b> , <a href="#">B.FLT.4013</a> , June 2023.                |
| <b>Evaluation of partial pen coverage with shelter in a commercial feedlot</b> , <a href="#">B.FLT.4020</a> , June 2024.                            |
| <b>Australian lot feeding industry shade and shelter intentions survey 2025</b> , <a href="#">B.FLT.4028</a> , September 2025.                      |

While this is an extensive portfolio of research completed, further research is currently underway to continue to build knowledge regarding shade and shelter options for feedlot operators. This includes a \$2,471,000 investment in the following work:

| MLA Shade Research and Development - Underway  |
|--|
| <b>Determining optimal space allocation and bedding rate of feedlot cattle under covered housing systems - Southern Australia</b> , B.FLT.4025, in progress. |

## BUILDING TRUST THROUGH STAKEHOLDER ENGAGEMENT

ALFA is committed to fostering meaningful and constructive engagement with a broad range of stakeholders to advance the interests of the lot feeding sector.

Through the development, consultation and communication of the Shade Initiative, ALFA has focused heavily on our feedlot members and NFAS Accredited feedlot operators to demonstrate the benefits of shade and encourage adoption.

We have also focused on building and advancing our sector's reputation as a forward-thinking, proactive sector committed to continual improvement and the welfare of cattle in our care. Progress against ALFA's Shade Initiative has been transparently communicated in [ALFA's annual 'Year in Review' reporting](#) and through the [Annual Update](#) reporting mechanism of the [Australian Beef Sustainability Framework](#).

The Shade Initiative has enabled ALFA to continue to build on its strong, trusted relationships with industry partners, government, research bodies, and the broader supply chain. These connections have allowed ALFA to influence decision-making, shape policy, and ensure that outcomes are informed, practical, and aligned with the needs of feedlot operators and the industry more broadly than shade and animal welfare alone.

Additionally, it is initiatives such as these that contribute to our sector's social capital and standing in the broader Australian community. MLA has been conducting Community Sentiment Research since 2010 with research company, Pollinate. Since commencing the research into understanding the community's trust in the red meat industry and what drives trust, trust in the industry reached a record high in 2025. The 2025 Community Sentiment Research shows that [67% of metropolitan Australians having a strong level of trust in the Australian beef industry to "do what is right"](#).

We know from this research that some of the top drivers of trust in the industry were the perceptions that Australian cattle farmers are "ethical and trustworthy with animals humanely raised" and "transparent and responsive, prepared to change practices."

Since 2013 there has been a gradual reduction in Australian consumer concerns about grain feeding cattle in feedlots with a marked reduction from 2021 onwards. This coincides with ALFA's increased activity in communicating our sector's welfare and environmental credentials via [www.grainfedbeef.com.au](http://www.grainfedbeef.com.au), which has included information on our Shade Initiative.

# Concerns about beef production within a grain feeding facility have declined and are now relatively stable



Concern of beef production stages (extremely/very concerned %) – Among meat eaters

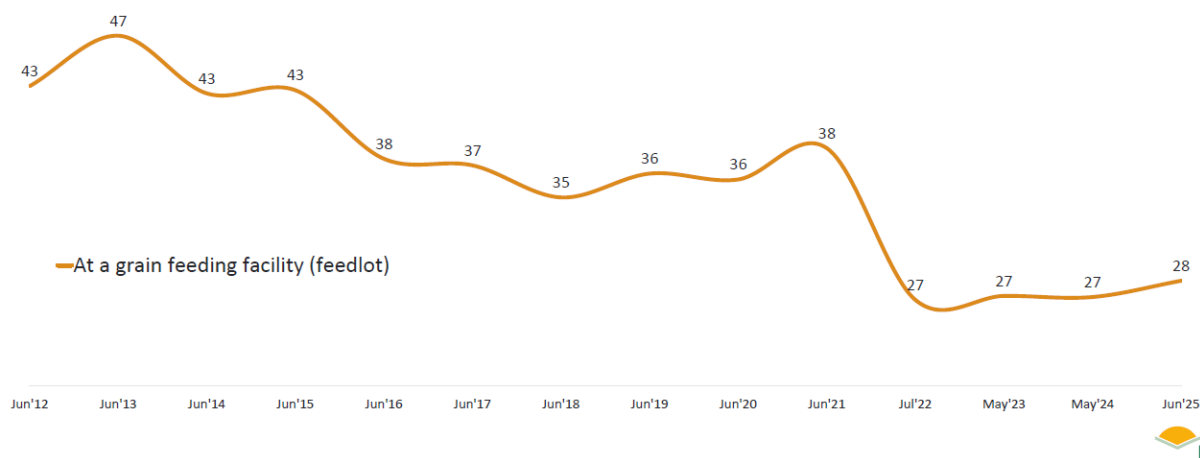


Figure 2. Degree of concern about beef production within a grain feeding facility amongst meat eaters

## CHALLENGES AND OPPORTUNITIES

The adoption of shade infrastructure in Australian feedlots presents a significant opportunity to enhance animal welfare, productivity, and heat-stress and climatic resilience across the sector. However, these benefits must be weighed against practical challenges such as capital cost, design complexity, and the need for evidence-based guidance tailored to diverse feedlot environments and climatic conditions.

### CHALLENGES

- **Capital investment and financial feasibility remain major barriers, particularly for small and medium-sized feedlots where return on investment may be uncertain** - High capital costs, increased building and material prices following COVID-19, limited contractor availability, and long construction lead times continue to impact feedlots' ability to commit to shade infrastructure. Following the initial shock of the COVID-19 pandemic, the Australian Bureau of Statistics (ABS) reported<sup>8</sup> that "prices received by building construction businesses have increased 31.1% from September quarter 2020 to June quarter 2024, driven by growth in house construction prices which rose 40.8% over this period. Prices received for other residential building construction (25.3%) and non-residential building construction (27.1%) also strongly contributed to the rise."
- **Designing and constructing effective shade or covered housing systems is complex and often requires region-specific, custom-engineered solutions** - Feedlots face challenges associated with environmental and planning approvals, engineering requirements, and can lead to increased pen maintenance costs under shade, highlighting the need for clearer guidance and more consistent approval pathways.
- **Industry attitudes toward shade vary significantly, creating inconsistency in adoption across regions and feedlot types** - Some operators believe Bos indicus and Bos indicus-infused cattle or cattle in temperate climates do not require shade, while others rely

<sup>8</sup> [Insights into Output of Building construction prices](#), ABS, 2024

on past experience of cattle management and observation as justification for not investing in infrastructure.

- **Confusion exists within parts of the industry about whether shade should be compulsory, leading to mixed perceptions of the initiative** - Whilst most feedlots support the implementation of shade, some have misinterpreted elements of the initiative as a regulatory requirement, underscoring the need to ensure that communication is clear and consistent. This will continue to be important as focus increases on ensuring that feedlots understand the welfare and productivity benefits that it is a commercial decision regarding implementation of shade and covered housing systems.

## OPPORTUNITIES

- **Strong productivity and economic benefits continue to drive interest in shade adoption across the feedlot sector** - Demonstrated improvements in average daily gain, feed efficiency, and carcass quality make shade one of the most compelling welfare investments from a commercial performance standpoint.
- **The growing consideration of covered and semi-covered housing systems reflects a shift toward greater climate resilience and improved operational management** - These structures not only support animal comfort but also offer advantages during wet weather, enabling better pen-surface control and potentially supporting higher stocking densities.
- **Shade and shelter infrastructure is increasingly recognised as a key component of broader sustainability and emissions-reduction strategies** - Integration with frameworks such as industry sustainability metrics creates opportunities to link animal welfare with environmental outcomes, strengthening industry credentials.
- **There is significant scope to accelerate adoption through co-funding, incentives, and tailored design approaches suited to individual site conditions** - With options ranging from shade cloth and iron sheeting to waterproof fabrics and fully roofed systems, combined with potential industry and government support, feedlots can select solutions that align with their operational needs and strategic goals.

## INDUSTRY INTEREST IN COVERED HOUSING SYSTEMS

Across the initiative, there has been clear growth in operator interest in partly and fully covered housing systems.

This is driven by:

- the unique climatic conditions experienced across where feedlots are locally located.
- need to manage extreme weather events, with a particular focus on high rainfall zones, winter conditions and prolonged wet weather events, and to reduce heat load impacts.
- improved control over effluent and water management within intensive production environments.
- opportunities to integrate renewable energy or waste-to-value systems (e.g. solar, biogas).

While initial capital investment is higher, operators increasingly recognise the potential for productivity gains, operational efficiency, and market differentiation through covered housing infrastructure in certain climatic areas.



## THE JOURNEY AHEAD – FEEDLOT OPERATOR INTENSIONS TO INSTALL SHADE

Since the Shade Initiative was launched in 2020, shade adoption has steadily increased, reaching 75.1% of constructed capacity by the end of 2025. To better understand how adoption is likely to progress in the coming years, ALFA partnered with MLA to assess future uptake by feedlot operators.

The Australian lot feeding industry shade and shelter intentions survey 2025, B.FLT.4028, was completed in September 2025 providing insight into the intended adoption of shade moving forward.

Feedlot operators surveyed intend to invest in shade and shelter infrastructure with cattle under shade in feedlots expected to rise to approximately 84% of total constructed capacity by the end of 2026 and 85% by the end of 2029.

## NEXT STEPS AND FUTURE ACTIONS

As the industry continues to build on the momentum around shade and shelter adoption, it is essential to translate these insights into practical actions that support feedlot operators in making informed, confident investments.

The following next steps and recommendations outline the key priorities required to advance adoption, strengthen industry alignment, and ensure shade infrastructure delivers maximum welfare, productivity, and sustainability benefits into the future.

- **Continue Promoting Adoption** - Continue delivering targeted extension activities and showcase case studies that illustrate the welfare and tangible performance benefits achieved through shade investment. These will demonstrate measurable returns such as improvements in productivity, heat-load mitigation, and carcass outcomes across a diversity of feedlot sizes, management systems, and climatic zones. Highlighting real-world operator experiences will help build confidence, address misconceptions, and accelerate broader industry uptake.
- **Support Research into Covered Housing Systems** - Support collaboration with research partners to generate robust, independent data on the environmental, animal welfare, and economic outcomes of fully or partially covered housing systems. This work will focus on practical variables such as pen-surface management, labour efficiency, climate resilience, and long-term durability to ensure results are scalable and relevant to commercial feedlots. Research should also explore regional considerations to support more tailored recommendations for operators.
- **Further Incorporate Learnings into Training** - Enhance existing [Feedlot TECH](#) training modules by embedding practical content on shade design, infrastructure selection, installation, maintenance, and climate-adaptive planning. Training will equip feedlot staff and managers with the knowledge to optimise shade performance, manage risks, and ensure longevity of installations. Incorporating insights from case studies and research outcomes will ensure training remains current, relevant, and grounded in best practice.
- **Advocate for Policy and Funding Support** - Engage with state and federal governments to position shade and shelter infrastructure as a recognised animal welfare, climate adaptation, and productivity-enhancing investment. Advocate for funding mechanisms such as grants, co-funding models, or tax incentives that support feedlots to adopt shade as part of broader sustainability, resilience, and emissions-reporting frameworks. This includes aligning shade with market-driven expectations, evolving sustainability reporting requirements, and national climate commitments.

## ACKNOWLEDGMENTS

ALFA's Shade Initiative has been a major undertaking for the Association and the feedlot industry. As a leadership position of the Association the initiative would not have been as successful without the support of our key stakeholders, members, sponsors and supporting businesses.

ALFA would like to acknowledge and thank Meat & Livestock Australia for their partnership approach in research, development and support of our extension activities to create awareness and stimulate adoption of the benefits of shade to welfare and productivity.

To our research community who have executed our shade and shelter research with robustness, objectivity and integrity so that we better understand the science of cattle welfare under shade, thank you.

To our many sponsors of our workshops and events who contributed to the operations of our extension activities, you too have been an integral part in assisting industry.

To the manufacturers and suppliers of shade and shelter infrastructure we thank you for your services.

Above all we thank the many feedlot operators who have supported the initiative and responded so positively through your commercial investment in shade, your commitment to continually improve the welfare of cattle under our care, your commitment to improving productivity and dedication to positioning our sector for a sustainable future.

## CONCLUSION

The ALFA Shade Initiative has delivered substantial progress in building industry capability, demonstrating and improving welfare, delivering productivity benefits, and fostering innovation in feedlot design. ALFA's Shade Initiative has also positioned the Australian Lot feeding industry as a proactive, forward-thinking sector, driving and assisting in the long-term sustainability of the industry.

The success of the Shade Initiative to date is testament to the industry's proactive track record and highlights the collective commitment to the welfare of the cattle in our care.

While challenges remain around cost, complexity, and regulatory consistency, the initiative has laid a strong foundation for future advancement. With growing interest in covered and climate-smart housing systems, continued investment from ALFA, MLA, and industry partners will be critical to maintain momentum. Through sustained collaboration, the feedlot sector is well placed to lead the Australian red meat industry in delivering world-class standards of animal care, environmental performance, and operational resilience.



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