

# NATIONAL WOOL RD&E STRATEGY 2018-2022

## INTRODUCTION

The National Wool Industry RD&E Strategy 2018-2022 has been developed to help guide investments to increase the value of the sheep and wool industry to the Australian economy and to Australian wool producers.

The original National Wool RD&E Strategy was published in June 2011 and a revision of the Strategy was published in April 2018, following a comprehensive review process.

## PURPOSE OF THE STRATEGY

The purpose of this Strategy is to establish a framework to guide investment in RD&E so that the Australian wool industry can:

- Identify its RD&E priorities and future direction;
- Clarify the linkages between existing R&D and industry-sector strategies, and other relevant documents;
- Have the tools, resources and information available in the future to enable informed decision making;
- Monitor and evaluate its RD&E programs;
- Support national priority needs (e.g. emergency management, market access); and
- Maintain and improve market access and consumer confidence.

The strategy will enable collaboration between state organisations with the aim of increasing wool RD&E.



## VISION

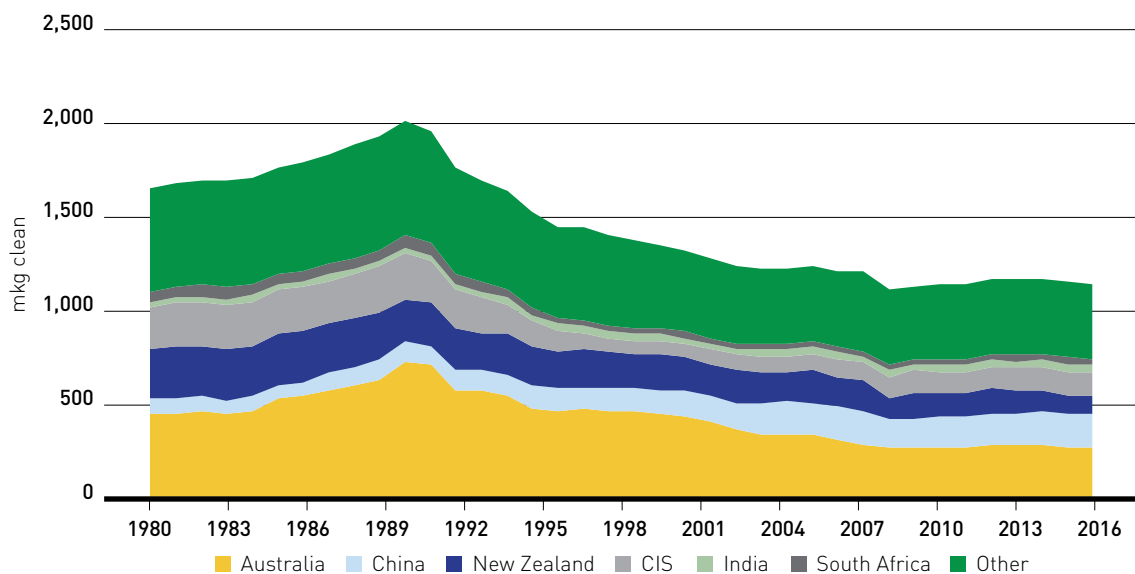
### A profitable and sustainable Australian wool industry producing the world's best natural fibre.

To achieve this vision will require a highly efficient and effective wool RD&E sector, undertaking collaborative investment and capability planning, to develop and deliver technology and systems that improve productivity through R&D and adoption; develop the industry's people; manage industry risks; strengthen the value chain; and support wool's positioning in markets globally.

## THE AUSTRALIAN WOOL INDUSTRY – SETTING THE SCENE

- Wool production has been falling globally due to low prices and perceived higher profitability of other enterprises, notably cropping and lamb production.
- After two decades of decline, global wool production has stabilised over the past seven years at around 1,100-1,150 mkg clean (Figure 1).
- Shorn wool production in Australia fell from a record level of 1,029 mkg greasy in the 1989/90 season to a forecast 322 mkg greasy in 2015/16.
- Prices for competing fibres, notably cotton and synthetic fibres has had an influence on the demand for wool and on wool prices in the past.
- The International Wool Textile Organisation (IWTO) estimates that Australia accounted for 24% of world wool production in 2014/15, down from a share of 36% in 1989/90.
- In 2014/15 48% of apparel wool was from Australia and 66% of wool of 24.5 microns and finer was from Australia.

Figure 1: World wool production 1980 to 2016

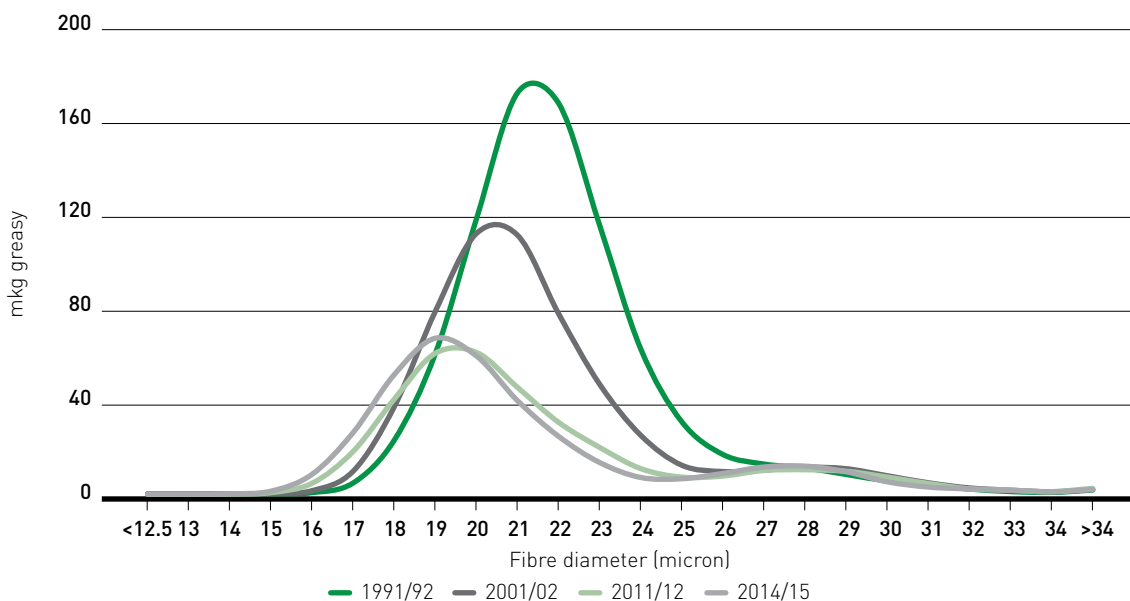


[Source: International Wool Textile Organisation, Market Information 2015]

## WOOL PRODUCTION

- Shearing remains the most significant cost for growers in delivering their wool from the sheep's back to the mill accounting for approximately one quarter of the average price received at auction.
- Total wool harvesting and selling costs amounted to 38% of the average price received at auction.
- Eighty-five to 90% of Australia's wool is sold at auction.
- The transition from a wool-driven sheep industry to a dual-product (wool plus lamb) industry is reflected in the converging value of each commodity where sheepmeat now has a higher gross value of production (GVP) than wool.
- The Australian wool clip has been trending genetically finer since the early 1990s with a significant shift towards production of superfine wool (18.5 micron and finer) (Figure 2).
- There has also been an increase in production of crossbred and broader wool.

Figure 2: Changes in the Australian micron profile 1991/92; 2001/02; 2011/12 and 2014/15



[Source: AWTA Ltd]

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## THE WOOL INDUSTRY IN 2025+\*

- Price pressures from retail back to the producer will remain intense – that is, producers' terms of trade will continue to tighten.
- Production conditions will be more variable as climate change takes hold.
- The trend towards casualisation in consumer markets will continue, shifting demand away from some of wool's traditional market segments and towards active-leisure wear.
- Product quality, provenance and sustainability will assume increasing importance, as will high animal welfare and ethical production standards, which will be required to maintain the industry's social licence to operate.
- Demand for sheepmeat will continue to grow, particularly from export markets.

## A SUCCESSFUL WOOL PRODUCER IN 2025 WILL\*:

- Determine the optimum balance between sheep and other enterprises on their farm, and between wool, sheep meat and livestock trading, based on a considered, well-informed and objective long-term view of the respective industries, resource capability and personal preferences.
- Understand the target product segment for their annual wool production, such as the active-leisure knitwear sector, and structure their wool production and husbandry practices to produce wool with the specifications required by that main product segment.
- Conduct annual production and financial analyses to monitor progress against business plans, adjusting as needed.
- 'Know what they need to know' to successfully run their business – and source these skills either by their own professional development, or by retaining expert advisers where needed.
- Have in place a sheep genetic improvement program optimised to the enterprise mix of the business and target market segment(s).
- Adopt a continuous improvement mindset where productivity improvements are vigorously and relentlessly pursued.
- Participate in, and meet the standards of, an Australian wool industry provenance/sustainability scheme which has credibility in the eyes of customers in their target market for wool.
- Actively manage production and price risk through flock structure, stocking rate, feed conservation/fodder purchases and use of price risk management tools.
- Have sourced and structured the financial capacity required to put their plans into practice.
- Have developed and adopted a clear succession plan in conjunction with their family and/or business partners.

\*NSW Wool Industry & Future Opportunities report 2015

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# NATIONAL WOOL RD&E PROGRAM FRAMEWORK 2018-2022

The following programs have been identified as priorities for wool RD&E investment. Programs are articulated at a high level to provide the flexibility to exploit good ideas as they arise, while at the same time making clear the RD&E priorities of the industry.

These programs cover only those areas in which there is cross-organisational investment among the parties to the plan. Areas such as new wool product development, which is the remit of Australian Wool Innovation (AWI) and textile industry partners, are not included in this plan.

## PROGRAM 1: INCREASE PRODUCTIVITY

### Rationale:

Innovation drives the prosperity of every industry. R&D to deliver new products and processes is critical to ensuring wool remains a competitive textile fibre, and the wool industry is profitable and satisfying for all participants. This program seeks to increase the productivity and hence profitability of wool producers.

### Activities:

Priorities for R&D investment over the life of this plan are:

- **Reproductive performance**, especially of the Merino;
- **Survival rates**, especially in ewes, lambs and weaners;
- **Reduced predation of sheep**;
- **Running the right sheep for the enterprise**, achieved largely through breeding decisions;

- **New options for sheep in the cereal zone**; and
- **Greater understanding of breed demographic shifts** and the impacts on wool production and productivity.

### Key performance indicators<sup>1</sup>:

Over the life of this plan and to 2030:

1. Average marking rates will increase by 0.5% per annum
2. Average Merino hogget survival rate will increase by 0.13% per annum<sup>2</sup>
3. Average Merino lamb survival rate will increase by 0.2% per annum
4. Average adult sheep survival will increase by 0.1% per annum
5. The proportion of hogget ewes mated will increase by 0.5% per annum (from 10% to 17.5% in 2029-30)
6. The average wool cut per head will be maintained at 4.5 kg (2014-15 base) or will increase
7. These targets will collectively result in a 0.7% p.a. increase in sheep numbers

## PROGRAM 2: OPTIMISE ADOPTION

### Rationale:

The outcomes of Program 1, and of the R&D conducted over many decades in the wool industry, are of little value unless they are appropriately adopted by industry participants. There are much greater differences in performance between top-performing and average wool enterprises than between different broadacre enterprises. These differences are due to the adoption or non-adoption of practices proven to improve profitability or reduce risk.

<sup>1</sup> These KPIs have been based on a combination of information taken from Young, J. (2016) "Meta-Target Outcomes for the AWI Reproduction Strategic Plan" and Thompson AN, Trompf J, Young JM (2016). *Reproduction Strategic Plan*. AWI Internal document, along with assumptions within the modelling work of Curtis, K (Unpublished)

<sup>2</sup> Current survival rates are: Merino hogget 94%; Merino lamb 92%; and adult 96%

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**Activities:**

Projects will be undertaken to enhance the adoption of proven practices guided by sound decision-making. Consistent with the priorities identified in Program 1, practice adoption priorities include (but are not limited to) those that optimise the management of the breeding flock – such as targeted nutrition, use of scanning, individual animal management and the application of the most current quantitative genetic and genomic data and tools.

**Key performance indicators:**

By 2022:

1. 25% of Merino ewes will be managed using the recommendations of Lifetime Ewe Management<sup>3</sup>.
2. The number of Merino ewes that are scanned for litter status and differentially managed to aid reproductive performance will increase from 25% to 34%<sup>4</sup>.
3. 50% of Merino producers will be using genetic tools (e.g. Australian Sheep Breeding Values, Merino Superior Sires, wether trial data) in ram purchase decisions<sup>5</sup>.

**PROGRAM 3: BUILD CAPACITY AND CONFIDENCE****Rationale:**

Farming is an increasingly complex business demanding multiple skills, many of which have not traditionally been associated with agriculture, such as business planning, procurement and price risk management. The success of the wool industry relies heavily upon its participants having the capacity and confidence to build profitable and sustainable enterprises. This strategy is closely aligned with and an enabler of Program 2.

The future success of the industry also relies on the ongoing availability of skilled researchers and extension/training experts, especially given the aging profile of current resources.

**Activities:**

Investments will be made in activities that build skills in business management, risk management and resilience, workplace (physical and mental) health and safety, succession planning, leadership and related areas. A key area of investment will be labour savings and efficiency, included here rather than in Program 1 because it can reduce stress and aversion to sheep as an enterprise.

**Key performance indicators:**

By 2022:

1. As a result of capacity building programs, producer confidence in the sheep industry will increase.
2. New labour-saving technologies will be available for use by producers.

**PROGRAM 4: MANAGE RISKS, EXPLOIT OPPORTUNITIES****Rationale:**

The wool industry faces a number of serious risks to its capacity to operate, its domestic social licence and its consumer acceptance. Such risks include:

- Changing climate, droughts, floods etc.;
- Pests and weeds;
- Emergency animal diseases;
- Consumer responses to animal welfare and management.

3 Thompson, A [2016] pers. communication

4 Thompson, A [2016] pers. communication: Assumes that in 2016, 32% of Merino ewes are scanned for multiples, and around 80% of those differentially managed = 25.6 of ewes differentially managed. Assumes target increase to 33-35% (which would mean an 8% increase in total % ewes scanned for multiples and a 5% increase in the % of those differentially managed)

5 Combination of opinions and data from AWI, NSW DPI, DAFWA and the Sheep CRC

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Collective action is important to manage these risks as effectively as possible. With an effective approach, some risks become opportunities – for example, wool production can be a key risk management tool for landholders in conjunction with cropping as climate variability increases.

#### Activities:

Activities under this strategy seek to reduce the chance of occurrence, or mitigate any impacts that do eventuate, in relation to key industry risks. Priorities for industry-level risk management are in the areas of animal welfare, climate change and variability, and emergency and endemic animal disease.

#### Key performance indicators:

By 2022:

1. Australian producers have the tools and know-how to enable compliance with relevant domestic and international guidelines for sheep health and welfare.
2. 80% of producers have the knowledge and skills to better manage the effects of climate variability.
3. Investments in biosecurity research and diagnostic capacity are maintained at a level sufficient to allow industry to respond as required under the Emergency Animal Disease Response Plan.

### PROGRAM 5: STRENGTHEN THE VALUE CHAIN

#### Rationale:

Developments in information and communication technology offer opportunities to greatly improve the flow of products and data throughout the value chain. Greater exchange of data between industry participants will deliver efficiency in product description and feedback as well as traceability, important for Program 4.

#### Activities:

The strategy will involve investments in areas such as wool harvesting, wool sampling and testing, classing, bale identification and wool selling systems.

#### Key performance indicators:

By 2022:

1. The costs associated with testing and the management of wool selling systems has been maintained at or reduced from 2015 levels.
2. The relative cost of wool harvesting (average c/kg) has been reduced from the 2015 benchmark.
3. At least 90% of all wool sold is covered by the National Wool Declaration (NWD).

### PROGRAM 6: SUPPORT WOOL'S MARKET POSITIONING

#### Rationale:

Wool is a premium product occupying a small niche of the textile market. Like any differentiated product, its success relies on a strong positioning underpinned by credible evidence to support that positioning. AWI's marketing campaigns and those of many downstream players seek to emphasise the many qualities of wool. There is an important role for R&D to support these market propositions.

#### Activities:

Activities under this strategy will be focused on wool's key competitive strengths, including its **naturalness, ecological credentials, health benefits** (sleep, skin health) and **functional benefits** (next-to-skin comfort, active cooling and so on).

#### Key performance indicators:

By 2022:

1. Improve wool's environmental footprint rating
2. Evidence of and specifications for:
  - wool next to skin garments to ameliorate chronic skin condition;
  - wool bedding and sleepwear improves sleep;
  - safety benefits of wool.



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