AgriFutures Thoroughbred Horses Program Strategic RD&E Plan (2017–2022)

June 2021
by Michael Clarke and Annelies McGaw
AgriFutures Australia’s vision is to grow the long-term prosperity of Australian rural industries. We have three strategies to grow profitability and sustainability in our levied industries:

• Engaging industry participants in determining RD&E priorities.
• Investment in innovation that assists levied industries to be more profitable.
• Delivering outcomes to maximise industry uptake and adoption.

The profitability, productivity and sustainability of rural industries is AgriFutures Australia’s core business, and the organisation works with its portfolio industries to invest in their priority RD&E needs. AgriFutures Australia fosters strong relationships with industry partners, including the thoroughbred horses industry, to ensure RD&E investment leads to practical knowledge and innovation which can be adopted by industry members. AgriFutures Australia will continue to work with the thoroughbred industry to ensure the industry’s five-year research priorities meet industry needs and are informed by Government priorities. The adoption of RD&E outcomes is fundamental to success, and just as we have with the AgriFutures Thoroughbred Horses Program Strategic RD&E Plan 2017-2022, AgriFutures Australia will work with industry and Government stakeholders to ensure the corporation invests in knowledge that is useful and adopted by end users.

John Smith
General Manager, Research
AgriFutures Australia
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Our vision
To grow the long-term prosperity of Australian rural industries

People and Leadership
Goal
Support the people driving the future prosperity of Australian rural industries and regional communities by providing them with learning opportunities and experiences.

Priorities
Attracting capable people into careers in agriculture.
Building the capability of future rural leaders.

National Challenges and Opportunities
Goal
To identify and nurture research and innovation opportunities that are synergistic across rural industries.

Priorities
Informing debate on issues of importance to rural industries.
Adapting new technologies for use across rural industries.
Working collaboratively on issues common across rural industries.

Growing Profitability
Goal
Sustain the profitability and sustainability of our levied industries, regional communities and the broader Australian economy depend on profitable farms.

Priorities
Engaging industry participants in determining RD&E priorities.
Investing in innovation that assists levied industries to be more profitable.
Delivering outcomes to maximise industry uptake and adoption.

Emerging Industries
Goal
To support new and emerging rural industries.

Priorities
Supporting the early stage establishment of high potential rural industries.

Goal
Enhanced welfare and safety of thoroughbred horses, those who work with them and the sustainability of the industry.

Priority 1
Priority 4
Industry training and Program communication and extension supported.

Priority 2
Priority 5
The industry’s economic contribution and its market are understood, and additional RD&E resources secured.

Priority 3
Reduced incidence and impact of diseases and parasites in horses.

Priority 4
Improved breeding outcomes and foal health and development.

Priority 5
The goal of the Program is to invest in RD&E that improves the sustainability, productivity, and competitiveness of the Australian thoroughbred industry. The program supports an efficient breeding system that aims to reduce the average number of serves per pregnancy, increase live foals delivered per mare covered, and increase the DNA parentage count confirmed each year. The industry values durable horses with long racing careers.

The Plan is structured around five priorities:

Details of activities to implement Plan priorities, and key performance indicators to measure Plan success, are provided within the body of the Plan.

Executive summary
This document is a revised AgriFutures Thoroughbred Horses Program Strategic RD&E Plan 2017-2022. The Plan was revised following a mid-term review in 2020.

The Plan is structured around five priorities:

Priority 1
Enhanced welfare and safety of thoroughbred horses, those who work with them and the sustainability of the industry.

Priority 2
Improved breeding outcomes and foal health and development.

Priority 3
Reduced incidence and impact of diseases and parasites in horses.

Priority 4
Industry training and Program communication and extension supported.

Priority 5
The industry’s economic contribution and its market are understood, and additional RD&E resources secured.

Details of activities to implement Plan priorities, and key performance indicators to measure Plan success, are provided within the body of the Plan.
Plan on a page

Table 1: The Thoroughbred Horses Program Strategic RD&E Plan 2017-2022 is presented as a ‘Plan on a page’ below. All key performance indicators (KPIs) are to be achieved by the end of the Plan in 2022.

**Priorities** | **Activities** | **KPIs**
--- | --- | ---
1 | **Enhanced welfare and safety of thoroughbred horses, those who work with them, and the sustainability of the industry.** | • 1.1 Improve the monitoring and identification of conditions that impact horse welfare, injury and breakdown.
• 1.2 Develop improved methods to measure forces operating on musculoskeletal structures in training and competing horses.
• 1.3 Research post-racing career destinations and provide recommendations for where thoroughbreds are homed in retirement. Baseline data collected on why horses are retired from the industry.
At least one new model or method for optimal management of musculoskeletal injuries in thoroughbreds has been investigated.
A project that improves outcomes for workers who have suffered human health incidents while working with horses, and that is replicable, has been completed.
2 | **Improved breeding outcomes and foal health and development.** | • 2.1 Develop an improved understanding of risk factors and the conditions required at the individual horse and population levels to deliver viable foals.
• 2.2 Develop improved strategies to prevent, detect, treat and manage priority foal diseases.
• 2.3 Research low-cost and rapid field techniques that can evaluate stallion fertility and mare pregnancy.
• 2.4 Develop management and treatment strategies that aim to improve the likelihood of pregnancy and delivery of a viable foal.
• 2.5 Communicate to industry strategies that aim to improve the likelihood of pregnancy and the delivery of a viable foal.
A project that fosters an improved understanding of risk factors that must be addressed for the delivery of viable foals has been completed by 2022.
By 2022, the industry has made progress towards delivering rapid, low-cost field techniques to detect stallion fertility and mare pregnancy.
Communicate techniques that aim to improve the likelihood of pregnancy and delivery of a viable foal through the Thoroughbred Horses Program newsletter.
3 | **Reduced incidence and impact of diseases and parasites in horses.** | • 3.1 Improve the diagnosis, prevention and treatment of priority diseases to reduce thoroughbred horse morbidity and mortality.
• 3.2 Develop alternative methods to address antimicrobial resistance in thoroughbreds.
• 3.3 Prepare a flexible and nimble framework for assessing and responding to emerging diseases, including zoonotics.
Projects are underway investigating one new option for a foal vaccine or other disease prevention measure by 2022.
Projects are underway investigating one new diagnostic, therapeutic or preventative measure for a priority horse disease or parasite by 2022.

**Priorities** | **Activities** | **KPIs**
--- | --- | ---
4 | **Industry training and Program communication and extension supported.** | • 4.1 Support a limited number of scholarships and increase the profile of the Program with relevant industry bodies to attract and retain the next generation of world-leading researchers.
This will ensure the Program has ongoing RD&E capacity.
• 4.2 Support upskilling and capacity building measures for people within the horse breeding industry.
• 4.3 Prepare and deliver a Communication and Extension Plan.
• 4.4 Extension activities will include the production and delivery of easily digested research summaries and the hosting of successful R&D forums by AgriFutures Australia and the Advisory Panel.
The Program has awarded one further scholarship by April 2022.
The number of recipients of the Thoroughbred Horses Program Newsletter has increased from 235 in August 2020 to 350 by April 2022.
AgriFutures Stakeholder Survey in 2022 reveals a better than 5.7 out of 10 satisfaction score for the way AgriFutures Australia engages with thoroughbred industry levy payers.
The Program has delivered an effective Communication and Extension Plan, Successful R&D Forums, each with a minimum of 30 levy payers attending, have been held in two locations between February 2021 and June 2022 (COVID-19 permitting).
5 | **The industry’s economic contribution and its market are understood, and additional R&D resources secured.** | • 5.1 Support thoroughbred breeding and racing economic impact studies to provide up-to-date information on direct and indirect employment and economic activity created by the industry.
• 5.2 Engage with key stakeholders and demonstrate the value of the Program to the industry. Examine opportunities to secure additional funding for the Program.
• 5.3 Examine opportunities to leverage and co-invest with other programs.
• 5.4 Invest in Program review to ascertain whether projects are generating economic, social, and environmental returns and remain aligned with industry priorities.
The Program has secured additional funding for the Program.
State and national governments and industry bodies have up-to-date statistics on the industry, are aware of trends, and can strategically plan to develop the industry.
Discussions have been held with key stakeholders about satisfaction with the Program and opportunities to secure sustainable funding.
An evaluation of the RD&E Plan 2017-2022 commences at the start of 2022.
The Australian thoroughbred industry is second in size only to the United States, with 660 stud farms predominantly in NSW, VIC, and QLD, but also in WA, SA, and TAS. The industry produces between 12,000 and 14,000 foals per year.

Thoroughbred breeding supports the Australian racing industry, and Australian horses are recognised for their performances around the world. Recent Australian-bred horses Black Caviar and Winx have become household names in Australia, and many have competed successfully overseas. Racing success ensures that hundreds of investors visit Australia each year to buy stock and export horses to race or breed in their own countries. Many others have bought their own breeding farms in Australia, cementing their commitment to the Australian industry.

It is important to note that most Australian thoroughbred breeders have just one or two mares (76%), and that more than half of all mares are owned by breeders with five or fewer horses. The industry therefore includes a mix of small-scale owners who represent the grassroots of an important national industry and also high-net-worth individuals and international entities.

Thoroughbred Breeders Australia (TBA) is the national peak body established for the benefit of the Australian thoroughbred breeding industry. TBA, a not-for-profit organisation, has a membership of 4,200 breeders and other industry participants, and is also the parent body of the six state breeders’ associations.

Racing Australia is the peak industry body overseeing the governance of the thoroughbred horse racing industry and manages the Australian Stud Book and the Registrar of Racehorses. The Australian Stud Book is the official record and publication of thoroughbred bloodlines for horses born in Australia. The Registrar of Racehorses is the official register of ownership and naming of thoroughbred racehorses for racing in Australia and for export.

The thoroughbred breeding industry contributes more than $1.16 billion per annum to the Australian economy, and employs close to 8,000 people, particularly in rural and regional areas. Jobs exist in the breeding industry but also in related areas such as horse transport, fencing, fodder, insurance and other professional services (Hardy and Limoli, 2019).

The Australian racing industry contributes more than $9.15 billion per annum to the Australian economy, with total direct and indirect employment of 71,937 full-time-equivalent jobs (IER, undated).

Domestic breeding is fundamental to the ongoing viability of the Australian racing industry and the staging of more than 2,500 race meetings across the country each year. These meetings, whether they be at small tracks at the heart of rural communities or the prestige venues of Flemington and Royal Randwick, provide wagering tax revenue for state governments and are often tourist attractions in their own right.

Industry profile

Research

Thoroughbred industry levy

The AgriFutures Thoroughbred Horses Program was established in 2017 and is supported by a statutory levy paid by mare and stallion owners. The levy is set at a rate of $10/mare covered per season paid by the stallion owner and $10/mare returned per season paid by the broodmare owner.

AgriFutures Australia also receives matching funding from the Australian Government, calculated under the PIRD Act. Subject to some limitations, this Commonwealth matching funding is capped at the lesser of 50% of eligible expenditure or 0.5% of industry gross value of production (GVP). Industry GVP is calculated on the aggregate of all AgriFutures Australia levied industries.

The levy collects about $400,000 per annum from the industry. When combined with an annual $150,000 voluntary contribution from Racing Australia, and Australian Government contributions, the Program has about $1 million per annum to invest.

Industry position in the AgriFutures Australia lifecycle

AgriFutures Australia’s commitment to new and developing industries is to support appropriate RD&E given the industry’s stage of maturity in the Australian market. AgriFutures Australia clearly defines its role as an investor in industries based on their development stage and the unique attributes of that industry.

With a statutory levy in place, the thoroughbred horses industry meets the criteria for an established industry under the AgriFutures Australia lifecycle assessment framework.

The Rapid Response Fund

The Rapid Response Fund is a mechanism that enables contingency funding of up to $50,000 to be approved for a critical activity relating to an urgent priority.

In order to be eligible for contingency funding, the Program must receive a proposal (using the FRP guidelines) that is judged by the Thoroughbred Horses Advisory Panel to meet a set of conditions. The conditions are written with breeders in mind but are also applicable for the racing sector. They are:

1. Proposals must outline a response to an urgent issue that has the potential to have a significant impact on individual breeders and the industry as a whole.
2. Proposals must be aligned with one or more priorities listed in the Strategic RD&E Plan.
3. Proposals must be accompanied by a letter of support from a relevant industry peak body (e.g. TBA at a state or national level) that highlights the importance and urgency for the response and the proposed actions.
4. Proposals must justify the value/need for an immediate response, as opposed to managing a project application through the normal annual call processes. Possible justifications include reducing impact of an adverse event such as a disease outbreak through early investigation and implementation of control measures, or collection of diagnostic samples or data in the face of an adverse event to aid understanding of causal factors and identification of control measures.
5. Researchers must demonstrate animal ethics approval in the jurisdiction concerned before any activity can proceed.
6. Proposed activities must be completed within 12 months from contracting. If further work is required, additional proposals can be managed through the annual open call process.
7. A final report must be submitted within three months of completing the project.
8. Projects must provide a full acquittal of expenditure against the budget as part of the final report, and researchers must return any unexpended funds to AgriFutures Australia once the final report is completed.
9. Proposals will be assessed using the same criteria as is used for the annual open call.
10. Proposals may be received at any time of the year. It is expected that a decision will be made quickly – within weeks.
The process for establishing RD&E investment priorities was guided by Thoroughbred Breeders Australia (TBA), with input from Racing Australia (RA). Levy payers were given an opportunity to contribute to the development of RD&E priorities through industry networks and meetings leading up to the first Thoroughbred Horses Advisory Panel meeting in June 2017. Panel members from the breeding and racing sectors consulted with levy payers on existing and future issues facing the industry and the role of RD&E in addressing these issues. From this process, an Interim Five Year RD&E Plan was prepared.

The Interim Five Year RD&E Plan was refined following the mid-term review (Clarke, 2020). The mid-term review included preparation of a consultation paper and a series of telephone interviews with TBA, Hunter Thoroughbred Breeders Association, large and small levy payers, and members of the AgriFutures Australia Thoroughbred Horses Advisory Panel.

The revised plan was reviewed at an Advisory Panel teleconference in February 2021 and subsequently presented in March 2021 as a final draft. The document was then submitted to the AgriFutures Australia Board for approval.

The Thoroughbred Horses Program Strategic RD&E Plan 2017-2022 aligns with Arena 1 and Arena 3 of the AgriFutures Australia Strategic R&D Plan 2017-2022. Arena 1, ‘People and Leadership’, aims to support the people driving the future prosperity of Australian rural industries and regional communities by providing them with learning opportunities and experiences. Arena 3, ‘Growing Profitability’, aims to enhance the profitability and sustainability of AgriFutures Australia’s levied rural industries.

There is also a direct link between the AgriFutures Thoroughbred Horses Strategic RD&E Plan and AgriFutures Australia’s Annual Operating Plan (AOP), which specifies KPIs for levied rural industries, including the Thoroughbred Horses Program. The AgriFutures Thoroughbred Horses Program Strategic RD&E Plan provides a Program-specific framework for meeting the KPIs listed in the AOP. The AgriFutures Australia Strategic R&D Plan 2017-2022 and AOP are available on the AgriFutures Australia website: agrifutures.com.au/about/corporate-documents/.

AgriFutures Australia is committed to achieving significant benefits to industry within available resources through the implementation of targeted and high-impact RD&E projects. The consultation process for this Plan highlighted a number of issues that the Thoroughbred Horses Program considers roadblocks to growth and development. Of these impediments, those that can be addressed with targeted RD&E have shaped AgriFutures Australia’s investment priorities for the five years 2017-2022. While not every problem raised can be addressed, these priorities aim to have high-impact and far-reaching benefits to the thoroughbred breeding and racing sectors.
Thoroughbred Horses Program Strategic RD&E Plan 2017–2022

Program goal

The goal of the Thoroughbred Horses Program is to invest in RD&E that improves the sustainability, productivity and competitiveness of the Australian thoroughbred industry. The program supports an efficient breeding system that aims to reduce the average number of serves per pregnancy, increase live foals delivered per mare covered, and increase the DNA parentage count confirmed each year. The industry values durable horses with long racing careers.

Priorities, strategies, and indicative activities

Following the mid-term review in 2020, updated objectives and recommendations have been consolidated into five RD&E Plan priorities, with associated strategies and activities. They are:

Priority 1: Enhanced welfare and safety of thoroughbred horses, those who work with them and the sustainability of the industry.
Priority 2: Improved breeding outcomes and foal health and development.
Priority 3: Reduced incidence and impact of diseases and parasites in horses.
Priority 4: Industry training and Program communication and extension supported.
Priority 5: The industry’s economic contribution and its market are understood, and additional RD&E resources secured.

Allocation of funding for the RD&E priorities will be considered annually as part of AgriFutures Australia’s Annual Operating Plan.
Thoroughbred Horses Program Strategic RD&E Plan 2021-2025

Priority – Enhanced welfare and safety of thoroughbred horses, those who work with them and the sustainability of the industry.

Strategies

Strategy 1 aims to enhance the welfare and safety of thoroughbred horses and the people who work with them. Projects undertaken as part of this strategy will research ways to minimise the injury and breakdown of horses through handling, training and racing. Projects will consider elimination studies of therapeutic drugs and research new ways to identify and detect prohibited substances capable of affecting performance or detrimentally affecting health and welfare.

Strategy 2 recognises that the welfare and safety of people is vital to the long-term sustainability of the industry. Research to record, report and address horse-related human injuries will be advanced through this strategy.

Justification

Ongoing improvements in horse and human welfare, and the management of the natural environment in which the industry operates, will continue to lift industry sustainability and long-term profitability.

Adoption of horse welfare RD&E initiatives will help to secure ongoing community and government support for the industry and the industry’s long-term social licence to operate.

Indicative activities

1. 1. Improve the monitoring and identification of conditions that impact horse welfare, injury and breakdown.
2. 1.2 Develop improved methods to measure forces operating on the musculoskeletal structures in training and competing horses.
3. 1.3 Research post-racing destinations and provide recommendations for where thoroughbreds are housed in retirement.

KPIs delivered by the end of 2022

1. Baseline data collected on why horses are retired from the industry.
2. At least one new model or method for optimal management of musculoskeletal injuries in thoroughbreds has been investigated.
3. A project that improves outcomes for workers who have suffered human health incidents while working with horses, and that is replicable, has been completed.

The MER Plan on pages 26-27 details whether KPIs have been achieved or timelines linked to their achievement.

Priority – Improved breeding outcomes and foal health and development.

Strategies

Strategy 1 aims to identify and address the causes of broodmares failing to fall pregnant or deliver a healthy foal capable of reaching its full potential.

Justification

The sustainability, productivity and competitiveness of the thoroughbred industry is linked directly to breeding efficiency. A fall in the number of serves required to deliver a viable foal increases the breeding efficiency of mares and stallions, and thus reduces foal cost.

Failure to deliver a suitable foal may be due to stallion infertility, fertilisation failure, early embryonic loss, abortion, or delivery of a dead or non-viable foal. Young foals are susceptible to a variety of infectious and non-infectious developmental conditions that may prevent the foal from reaching its full potential or cause its mortality.

RD&E addressing fertility, disease and foal development will deliver improved breeding efficiency and industry profit.

Indicative activities

1. Develop an improved understanding of risk factors and the conditions required at the individual horse and population levels to deliver viable foals.
2. Develop improved strategies to prevent, detect, treat and manage priority foal diseases.
3. Research low-cost and rapid field techniques that can evaluate stallion fertility and mare pregnancy.
4. Develop management and treatment strategies that aim to improve the likelihood of pregnancy and delivery of a viable foal.
5. Communicate to industry strategies that aim to improve the likelihood of pregnancy and delivery of a viable foal.

KPIs delivered by the end of 2022

1. A project that fosters an improved understanding of risk factors that must be addressed for the delivery of viable foals has been completed by 2022.
2. By 2022, the industry has made progress towards delivering rapid, low-cost field techniques to detect stallion fertility and mare pregnancy.
3. Communicate techniques that aim to improve the likelihood of pregnancy and delivery of a viable foal through the Thoroughbred Horses Program newsletter.

The MER Plan on pages 26-27 details whether KPIs have been achieved or timelines linked to their achievement.

Indicative share of RD&E budget:
Thoroughbred Horses Program Strategic RD&E Plan 2021-2025

3  Priority – Reduced incidence and impact of diseases and parasites in horses.

Indicative activities

• 3.1 Improve the diagnosis, prevention and treatment of priority diseases to reduce thoroughbred horse morbidity and mortality.
• 3.2 Develop alternative methods to address antimicrobial resistance in thoroughbreds.
• 3.3 Prepare a flexible and nimble framework for assessing and responding to emerging diseases, including zoonotics.

KPIs delivered by the end of 2022

• Projects are underway investigating one new option for a foal vaccine or other disease prevention measure by 2022.
• Projects are underway investigating one new diagnostic, therapeutic or preventative measure for a priority horse disease or parasite by 2022.

Indicative share of RD&E budget:

25%

4  Priority – Industry training and Program communication and extension supported.

Indicative share of RD&E budget:

15%

Strategies

Strategy 1 aims to support capacity building in the thoroughbred industry through training, communication and extension. Training support will focus on attracting researchers and young people into the industry. Communication activities will raise awareness of the levy-funded Program and its research outputs. Extension activities will target adoption of the findings from research projects.

Justification

Infectious diseases, non-infectious diseases and parasites put the health of thoroughbreds and humans who work with them at risk. Impacts range from reduced performance to serious illness or death. Diseases and parasites also cause economic loss in the Australian thoroughbred industry.

Reducing the incidence and impact of diseases and parasites in thoroughbred horses will reduce the cost of horse loss to the industry, make it safer for humans to work with horses, and help secure the industry’s long-term social licence to operate.

The 2007 equine influenza outbreak is a graphic example of the impact an exotic disease can have on the Australian thoroughbred industry. Hendra virus cases in QLD and NSW are examples of an endemic disease with life-threatening impacts on horses and people. Emerging infectious diseases where there is close human-horse contact are an ongoing issue. The emergence of Chlamydia psittaci as a recognised cause of equine abortion is one such example.

Changing climatic conditions mean diseases can emerge in different geographical areas to those where they are recognised as endemic. This presents an ongoing challenge for the industry. Parasite and antimicrobial drug resistance are expected to be increasing problems over time, with the potential for adverse health effects on horses. RD&E is the foundation on which continued development of effective diagnostic tools, treatments and preventive strategies can be based.

Indicative activities

• 4.1 Support a limited number of scholarships and increase the profile of the Program with relevant industry bodies to attract and retain the next generation of world-leading researchers. This will ensure the Program has ongoing RD&E capacity.
• 4.2 Support upskilling and capacity building measures for people within the horse breeding industry.
• 4.3 Prepare and deliver a Communication and Extension Plan. The plan will identify communication pathways within the industry and detail how the Program can use these pathways to drive engagement, undertake extension and encourage adoption of Program research. This could include industry meetings, use of webinars for research updates, and using low-cost media such as state-based TBA newsletters.
• 4.4 Extension activities will include the production and delivery of easily digested research summaries and the hosting of successful R&D Forums by AgriFutures Australia and the Advisory Panel.

KPIs delivered by the end of 2022

• The Program has awarded one further scholarship by April 2022.
• The number of recipients of the Thoroughbred Horses Program Newsletter has increased from 225 in August 2020 to 350 by April 2022.
• AgriFutures Australia Stakeholder Survey in 2022 reveals a better than 5.7 out of 10 satisfaction score for the way AgriFutures Australia engages with levy payers in the thoroughbred industry.
• The Program has delivered an effective Communication and Extension Plan.
• Successful R&D Forums, each with a minimum of 30 levy payers attending, have been held in two locations between February 2021 and June 2022 (COVID-19 permitting).

The MER Plan on pages 26-27 details whether KPIs have been achieved or timelines linked to their achievement.
Thoroughbred Horses Program Strategic RD&E Plan 2021-2025

Priority – The industry’s economic contribution and its market are understood, and additional RD&E resources secured.

**Strategies**

Strategy 1 supports improved understanding of the thoroughbred industry and its market, Program planning and funding.

**Justification**

Investment in Priority 5 will ensure the industry has access to information to support a favorable policy environment, is informed about market trends, has access to funding through industry partners, and is assured that its investments are delivering benefits to industry.

Up-to-date information on the industry’s economic contribution to regions, states and the national economy is required to ensure government and community support for thoroughbred breeding and racing.

Insight into domestic and export market trends assists with planning research and commercial investments.

Program planning is required to ensure the RD&E Plan continues to align with industry and government priorities. Strategies are needed to ensure that Program research remains adequately funded.

**Indicative activities**

- 5.1 Support thoroughbred breeding and racing economic impact studies to provide up-to-date information on direct and indirect employment and economic activity created by the industry.
- 5.2 Engage with key stakeholders and demonstrate the value of the Program to the industry. Examine opportunities to secure additional funding for the Program.
- 5.3 Examine opportunities to leverage and co-invest with other programs.
- 5.4 Invest in Program review to ascertain whether projects are generating economic, social and environmental returns and remain aligned with industry priorities.

**KPIs delivered by the end of 2022**

- State and national governments and industry bodies have up-to-date statistics on the industry, are aware of trends, and can strategically plan to develop the industry.
- Discussions have been held with key stakeholders about satisfaction with the Program and opportunities to secure sustainable funding.
- An evaluation of the RD&E Plan 2017-2022 commences at the start of 2022. The MER Plan on pages 26-27 details whether KPIs have been achieved or timelines linked to their achievement.

**Indicative share of RD&E budget:**

5%
Plan implementation and governance

Advisory Panel

The AgriFutures Thoroughbred Horses Program is supported by the AgriFutures Thoroughbred Horses Advisory Panel. The Advisory Panel is responsible for developing and ranking priority research proposals within the Strategic RD&E Plan’s framework and providing recommendations on the allocation of RD&E contributions to the AgriFutures Australia Board. The Advisory Panel has a particular role in ensuring its activities do not duplicate RD&E undertaken by other organisations.

AgriFutures Australia has committed resources to the Program, including a Manager Research and a Coordinator Research. The Manager Research is formally a member of the Advisory Panel. Programs are apportioned corporate costs based on a three-year rolling average of expenditures, including the current year forecast and the previous two years’ actual expenditure. This is then weighted and capped at 10% to ensure the variance in effort between small and large programs is captured as accurately as possible. The expenditure is reviewed on an annual basis, and any funding remaining is reinvested in Program RD&E.

Evaluation of the plan

The evaluation of the AgriFutures Thoroughbred Horses Program Strategic RD&E Plan 2017-2022 will include a cost-benefit analysis and will commence at the start of year five, i.e., 2022. The results will inform the next RD&E Plan.

Risk management

The thoroughbred horse industry is mature and stable and not subject to the production risk associated with other AgriFutures Australia levied industries. Consequently, few management risks have been identified. These are presented in Table 2.

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<th>Risk</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to secure ongoing support from Racing Australia (RA)</td>
<td>Moderate</td>
<td>Program has fewer resources for projects and is less effective without RA cooperation.</td>
<td>The RD&amp;E Plan includes a strategy to address this risk via engagement with RA.</td>
</tr>
<tr>
<td>Program Manager leaves AgriFutures.</td>
<td>Moderate</td>
<td>Corporate memory and Program continuity are disrupted (this occurred in 2018).</td>
<td>Program Coordinator has comprehensive exposure to the Plan and industry stakeholders.</td>
</tr>
<tr>
<td>Horse welfare advocates intensify their campaigns against the racing industry</td>
<td>High</td>
<td>Industry loses its social licence to operate (this occurred with the greyhound industry in the ACT in 2017).</td>
<td>The RD&amp;E Plan includes projects to collect and communicate data on industry value and to address horse welfare concerns.</td>
</tr>
</tbody>
</table>

Financial reserves policy

One of AgriFutures Australia’s aims is to ensure its RD&E investments contribute to the profitability, sustainability and resilience of rural industries and communities. To deliver this objective, the holding of financial reserves is a supporting tool within the AgriFutures Australia Investment Framework. The purpose of financial reserves is to manage risk derived from fluctuations in income.

AgriFutures Australia programs have a reserves policy as recommended by the Program Advisory Panel to ensure the continuation of the Program when faced with adversity, such as lower levy funding being available to fund existing research commitments because of a drop in production.

The Thoroughbred Horses Program reserves policy is managed to about 30% of Program receipts. The underlying objective of holding financial reserves is to maximise the Program’s investment in RD&E, consistent with its business objectives, while enabling sufficient funds to be available to cover contracted liabilities and to maintain RD&E capacity. The reserves policy is intended as a guideline only, and is subject to change due to extreme circumstances.
Thoroughbred Horses Program Strategic RD&E Plan 2017–2022

Monitoring, Evaluation and Reporting (MER) Plan

Table 3: The MER Plan for the Program is summarised.

<table>
<thead>
<tr>
<th>Priorities</th>
<th>KPIs</th>
<th>Investment</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enhanced welfare and safety of thoroughbred horses, those who work with them, and the sustainability of the industry.</td>
<td>Baseline data collected on why horses are retired from the industry.</td>
<td>Principal researcher Meredith Flash.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PRU-011271 will deliver this data in December 2021.</td>
<td></td>
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<td></td>
<td></td>
<td>At least one new model or method for optimal management of musculoskeletal injuries in thoroughbreds has been investigated.</td>
<td>PRU-012138 will deliver this KPI in August 2021.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A project that improves outcomes for workers who have suffered human health incidents while working with horses, and that is replicable, has been completed.</td>
<td>PRU-011192 delivered this KPI in May 2020.</td>
</tr>
<tr>
<td>2</td>
<td>Improved breeding outcomes and foal health and development.</td>
<td>A project that fosters an improved understanding of risk factors that must be addressed for the delivery of viable foals has been completed by 2022.</td>
<td>Program Manager and Advisory Panel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>By 2022, the industry has made progress towards delivering rapid, low-cost field techniques to detect stallion fertility and mare pregnancy.</td>
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<tr>
<td></td>
<td></td>
<td>Communicate techniques that aim to improve the likelihood of pregnancy and delivery of a viable foal through the Thoroughbred Horses Program newsletter.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Reduced incidence and impact of diseases and parasites in horses.</td>
<td>Projects are underway investigating one new option for a foal vaccine or other disease prevention measure by 2022.</td>
<td>Program Manager and Advisory Panel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Projects are underway investigating one new diagnostic, therapeutic or preventative measure for a priority horse disease or parasite by 2022.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Industry training and Program communication and extension supported.</td>
<td>The Program has awarded one further scholarship by April 2022.</td>
<td>Review of Program records in 2022.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The number of recipients of the Thoroughbred Horses Program Newsletter has increased from 235 in August 2020 to 350 by April 2022.</td>
<td>Review of AgriFutures mailout list.</td>
</tr>
<tr>
<td>5</td>
<td>The industry’s economic contribution and its market are understood, and additional R&amp;D resources secured.</td>
<td>State and national governments and industry bodies have up-to-date statistics on the industry, are aware of trends and can strategically plan to develop the industry.</td>
<td>PRU-011162 has delivered this data and an AgriFutures Australia Stakeholder Survey in 2022 confirms use of the data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussions have been held with key stakeholders about satisfaction with the Program and opportunities to secure sustainable funding.</td>
<td>Records of meetings between the Program and stakeholders are available for review by April 2022.</td>
</tr>
</tbody>
</table>
References


