Interim Thoroughbred Horses
Five Year RD&E Plan
2017 – 2022

December 2017
AgriFutures Australia Publication No 17/052
Foreword

This is the first Five Year Plan for the newly formed Thoroughbred Horses RD&E Program which will collect its first levy funds in 2017, based on levies applied to thoroughbred mare and stallion returns.

Program RD&E Plans are a key part of implementing AgriFutures Australia’s broader RD&E strategies and are the basis on which AgriFutures Australia invests on behalf of industries.

AgriFutures Australia has four arenas that guide all research and investment efforts and hold us accountable to the challenge we have set to build sustainable and profitable rural industries and communities:

1. People and leadership
2. National challenges and opportunities
3. Growing profitability
4. Emerging industries

Our goal for arena three is to enhance the profitability and sustainability of our levied rural industries. Regional communities and the broader Australian economy depend on profitable farms. We have three priorities for levied industries:

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

AgriFutures Australia fosters strong relationships with industry partners, including the Australian thoroughbred industry to ensure RD&E investment leads to practical knowledge and innovation which can be adopted by industry members.

In making its RD&E investments for new, developing and established industries, AgriFutures Australia takes a life-cycle approach. These investment decisions acknowledge the maturity and development of each of the industries within the AgriFutures Australia portfolio. Whilst managing a very diverse portfolio of new, developing and established small industry opportunities for Australia, the life-cycle approach assists AgriFutures Australia to make appropriate RD&E investments.

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 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 Harvey
Managing Director
AgriFutures Australia
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What is a Five Year Plan?

This Interim Five Year Plan has been developed in consultation with industry stakeholders, including Thoroughbred Breeders Australia (TBA), and Racing Australia (RA) to outline research, development and extension (RD&E) objectives until 2022.

Implementing the Five Year Plan will require identification and prioritisation of industry needs, developing an RD&E strategy with associated budget and resourcing, presentation to and approval by the AgriFutures Australia Board, and a commitment by stakeholders to delivery. AgriFutures Australia supports and encourages a pathway to adoption that focuses on defined goals, outcomes, outputs and impacts.

The Five Year Plan will form the strategic framework for R&D in thoroughbred breeding. Investment may consider the projected cost:benefits of the research, rate of adoption and pathway, industry demand including application to the breeding sector of the thoroughbred industry for racing and sporting requirements.

The Interim Five Year Plan presented in this document is intended to guide initial investment in the first 6 to 12 months and to also inform broader industry consultation with a view to finalising the Five Year Plan by mid-2018. Key performance indicators against each objective of the Plan will be developed during the consultation phase.

An annual review of progress of RD&E investments against the objectives of the Plan will be undertaken. At the end of the final year of the Plan an independent impact assessment of the benefits and costs of the investments will be undertaken, using the Council of Rural Research and Development Corporations evaluation guidelines.
The Australian thoroughbred industry

Between 1995 and 2015, AgriFutures Australia managed the Horse RD&E Program which was funded through voluntary industry financial contributions drawn from a wide range of industry bodies including Alanbridge Stud, the Australian Equine Veterinary Association, the Australian Harness Racing Council, the Australian Quarter Horse Association, the Australian Stock Horse Society, Australian Thoroughbred Breeders, Ms Barb Vial, Coolmore Australia, Ms Dolly van Zaane, Edinburgh Horse Rugs, Equestrian Australia, Mr Gerry Harvey, Howards Insurance, International Racehorse Transport, Logan's Livestock Insurance, Magic Millions, the Paint Horse Association of Australia, Peptech Animal Health, Racing Australia, Racing Victoria, Thoroughbred Breeders Australia, and Tyreel Stud. The support of all of these organisations and individuals is acknowledged.

The Horse RD&E Program ceased activities in 2015. Over the last few years of the Horse RD&E Program, industry consultation was undertaken to explore options for transition of the program from reliance on voluntary contributions to a statutory levy. This process culminated in submission of a formal proposal for implementation of a statutory levy from Thoroughbred Breeders Australia (TBA) with support from Racing Australia (RA). The statutory levy was approved in 2016 and collection of levy dollars will begin in 2017.

The Australian thoroughbred industry is a world leader with 21,500 broodmares and 700 stallions (second only to America in terms of numbers), and supports an outstanding Australian racing industry. Australian horses are recognised for their brilliance around the world: in 2016, for the ninth year in a row, an Australian-bred horse was named the best sprinter in the world, while our champions, such as Black Caviar, Winx and Able Friend, regularly win at the highest level across the globe.

This success ensures that each year hundreds of investors visit these shores to buy our stock, with a view to exporting horses to race or breed from in their home country. Many others have bought their own breeding farms in Australia, cementing their commitment to our industry.

It is important to note that the Australian thoroughbred industry is made up of a majority of breeders – 76 per cent – that have just one or two mares, and that more than half of all mares are owned by breeders with five or fewer horses. The industry therefore includes a wonderful mix of many small scale owners representing the grass roots of an important national industry while also including high end 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 base of 4,200 individual breeders and other industry participants, and is also the parent company of the six state breeders' associations.

The scale of production means that thoroughbred breeding makes a huge contribution to the Australian regional economy, supporting thousands of jobs directly, as well as many more in related areas such as horse transport, fencing, fodder and insurance.

Furthermore, the continued health of domestic breeding is fundamental to the ongoing viability of the Australian racing industry and the running of more than 2,500 race meetings across the country each year. These meetings, from small rural tracks which are at the heart of their communities to the glamour of the Melbourne Cup, provide vital wagering tax revenue for state governments, generate tens of thousands of jobs and are often major tourist events in their own right.
Industry position in the AgriFutures Australia life cycle

AgriFutures Australia’s commitment to new and developing industries is to support appropriate RD&E given their 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 the approval of the thoroughbred R&D Levy, the thoroughbred industry meets the criteria for an established industry under the AgriFutures Australia life cycle assessment framework.

The Thoroughbred Horses Advisory Panel

Funds from the levy will be allocated towards research that has been identified as a priority by levypayers and included in this Five Year Plan, with benefits that will extend across the breeding and racing sectors. The process for establishing research investments was guided by TBA with input from RA. Levy payers were given an opportunity to contribute towards the development of RD&E priorities through consultation leading up to the first Thoroughbred Horses Advisory Panel meeting in June 2017.

The Advisory Panel has been established to support the RD&E program. The Panel will consist of approximately five to seven members recommended by TBA and RA and including up to two members with technical and/or research experience. The proposed term for committee members is three years. The relevant AgriFuturesAustralia research manager is also a member of the Advisory Panel.

The Advisory Panel will have a balance of expertise appropriate to its task, particularly knowledge of the different industry sectors.

The role of the Thoroughbred Horses Advisory Panel will be to oversee the delivery of the Five Year Plan. This will involve providing recommendations to AgriFutures Australia on the organisations or individuals to deliver on the key projects in the Plan and to consider project deliverables and how to encourage adoption.

There will also be a role for the Panel to assist AgriFutures Australia to ensure that the outcomes of the RD&E will be made available to Australian thoroughbred levy payers and stakeholders.
Financial commitments

The thoroughbred R&D Levy will be paid by owners of broodmares and stallions.

<table>
<thead>
<tr>
<th>Leviable sector</th>
<th>Australian thoroughbred breeders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levy Rate</td>
<td>$10 per mare covered per season, paid by the stallion owner</td>
</tr>
<tr>
<td></td>
<td>$10 per mare returned per season, paid by the broodmare owner</td>
</tr>
<tr>
<td>Levy Collection Point</td>
<td>Australian Stud Book</td>
</tr>
<tr>
<td>Levy Commencement Date</td>
<td>1 September 2017</td>
</tr>
</tbody>
</table>

As the first levy payments will not be received by AgriFutures Australia until early 2018, TBA made a voluntary contribution of $200,000 in June 2017 to enable projects to commence. This contribution will be used to assist in the funding of the two projects identified as immediate priority actions. The thoroughbred racing sector, through RA has committed to contribute $150,000 per year, as a voluntary contribution to the program for three years in the first instance.

Funds available for RD&E projects are forecast to be approximately $750,000 per year. The Thoroughbred Horses RD&E program will seek to engage with other aligned industries to collaborate and leverage funds to increase RD&E outcomes.
Thoroughbred Horses RD&E objectives
2017–2022

Preparation of the Plan

The Interim RD&E Plan was developed in consultation with key stakeholders, industry representatives and members of the AgriFutures Australia Thoroughbred Horses Advisory Panel.

Preparation of the Plan involved discussion of the current and future issues facing the industry and the role of RD&E in addressing these issues. The Interim Plan was developed by the Panel Chair, Professor Nigel Perkins, with assistance from the Program Manager. The Interim Plan will be used to guide initial investment in projects identified as priorities for the industry and will also form the basis for consultation with key industry stakeholders over the next several months, leading to a final plan by mid-2018.

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 highlighted a number of issues that the thoroughbred industry 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 next five years. Whilst not every problem raised can be addressed, these priorities aim to achieve high-impact, far-reaching benefits for the industry.

The Five Year Plan will concentrate on RD&E investments against six objectives that deliver high-impact outcomes against the following seven pillars:

Pillars

1. Breeding
2. Healthy horses
3. Wellbeing - people and horses
4. Sustainability
5. Environmental
6. Economic prosperity/profitability
7. Social licence

Objectives

Objective 1: Continue to improve breeding outcomes and foal health and development.

Objective 2: Reduce the incidence and impact of diseases and parasites in horses.

Objective 3: Improve the safety of industry participants and the welfare of horses and enhance the sustainability of the industry.

Objective 4: Promote education and training for the horse industry through opportunities for training researchers and by effective communication of RD&E to horse industry stakeholders.

Objective 5: Industry planning, economic benefit studies and market research.
Objective 6: Reduce injury and breakdown of horses in work and training.

These objectives will be reviewed annually, as part of AgriFutures Australia’s Annual Program Review process. Further consultation and feedback will be sought from stakeholders, to adjust or amend objectives. Allocation of funding for these objectives will also be considered annually, as part of AgriFutures Australia’s Annual Operating Plan.
Objective 1: Continue to improve breeding outcomes and foal health and development

Mapped to Breeding pillar.

Background

The thoroughbred industry at all levels in Australia is dependent on successful breeding since few animals are imported. Failure of bred mares to deliver a live, healthy foal may be due to fertilisation failure, early embryonic loss, abortion or delivery of a dead or non-viable foal. Young growing foals are susceptible to a range of infectious and non-infectious/developmental conditions that may either prevent them from achieving their full potential or result in more severe effects including mortality. RD&E has made contributions to the improvement of fertility in the breeding population and reducing the risks of undesirable outcomes in young growing foals.

Priorities

1. Improvements in breeding outcomes and foal health and development by addressing conditions that adversely affect these outcomes at the individual horse and population levels.

Short term goals

Development of management and/or treatment strategies designed to improve likelihood of pregnancy following breeding, and of delivery of a live, healthy foal in pregnant mares.

Understand risk factors influencing occurrence, severity and prognosis of priority foal conditions.

Long term goals

Communication to industry of strategies designed to improve likelihood of pregnancy following breeding, and of delivery of a live, healthy foal in pregnant mares.

Develop improved strategies for detection, treatment/management and prevention of priority foal diseases.
Objective 2: Reduce the incidence and impact of diseases and parasites in horses

Mapped to Healthy horses pillar.

Background

Infectious and non-infectious diseases and parasites are major causes of wastage and economic loss throughout the industry with impacts ranging from reduced performance to serious illness and mortality. The 2007 equine influenza outbreak provided a graphic example of the severe impact of an exotic disease outbreak with effects being felt right across the industry. Hendra virus cases in Queensland and New South Wales provide an example of an endemic disease with life-threatening impacts on horses and people. Parasite resistance is expected to become an increasing problem over time with increasing potential for adverse health effects on our horses. RD&E is the foundation on which continued development of effective diagnostic tools, treatments and preventive strategies can be based.

Priorities

1. Reduce the impact of diseases that affect horse health or performance.
2. Reduce the impact of diseases of horses that affect human health.
3. Reduce the impact of parasites and parasite related conditions on horse health.

Short term goals

- Investigate options for vaccine development for foal diseases.
- Improvement in prevention & treatment of priority diseases.
- Improvements in diagnostics & therapeutics used in diseased horses.
- Improvement in prevention of dietary related diseases of horses.
- Describe risks, risk management options and constraints or knowledge gaps.
- Develop diagnostics, treatment and preventive strategies for parasites that are cost-effective and environmentally friendly.

Long term goals

- Initiate partnerships to develop vaccines for foal health.
- Communicate strategies for control of priority diseases to industry.
- Communicate strategies for more effective use of diagnostics and therapeutics used in priority diseases of horses.
- Communicate strategies for prevention of dietary related disorders.
- Implement activities to address gaps or constraints to effective risk management.
- Communicate effective strategies to industry for parasite diagnosis and control.
Objective 3: Improve the safety of industry participants and the welfare of horses and enhance the sustainability of the industry

Mapped to Wellbeing, Sustainability and Social licence pillars.

Background

Animal welfare continues to be an important issue for the thoroughbred industry and effort has been directed in recent years at a range of welfare-related issues across all sectors of the industry, including methods of handling, training and impacts of competition. The use of therapeutic and prohibited substances in thoroughbred horses continues to be an important issue. Safety and welfare of humans involved in equine activities is also recognised as important and efforts have been directed at improving the recording and reporting of horse-related injuries of humans in an attempt to contribute to a safer human-horse environment. Sustainability of horse production and management is increasingly important in a time of uncertainty over climate change, increasing population density in an urban-dominated society and availability of suitable land and water for horse production. Environmental sustainability incorporates efforts directed at maintaining natural assets, efficient use of natural resources and minimising or mitigating any adverse effects of horse activities on the environment. RD&E provides important inputs into future decisions that will help to ensure horses continue to make a sustainable contribution to the socio-economic fabric of Australian society.

Priorities

1. Develop research led strategies for addressing conditions or events that impact health, welfare or the environment.

Short term goals

• Improved monitoring of adverse health outcomes in horses and humans associated with horse events.
• Understanding of factors influencing horse welfare during routine management as well as during handling, training or competition.
• Understanding the environmental impacts associated with horse activities and options for minimising or mitigating adverse impacts and using resources more efficiently.

Long term goals

• Develop and communicate strategies for minimising risks of adverse health outcomes associated with horse events.
• Develop and communicate strategies for improvement of horse welfare.
• Develop and communicate strategies for maintaining natural assets, efficient use of natural resources and minimising adverse environmental impacts associated with horse activities.
Objective 4: Promote education and training for the horse industry through opportunities for training researchers and by effective communication of RD&E to horse industry stakeholders

Mapped to Wellbeing, Sustainability and Social licence pillars.

Background

The Program will explore and implement options for managing reports of completed research projects including downloadable, no-cost files and print-on-demand service for a nominal cost. The program will also explore options such as dissemination of news items and where appropriate sponsorship of professional conferences, including providing speakers and promotional material at horse events and through attendance at relevant industry events. In addition, the Program will consider options for supporting involvement of young trainees and research students in horse RD&E and other activities leading to career pathway development for young researchers and others in the horse industry.

The Panel will work with industry to progress the transition from an RD&E program dependent on voluntary contributions to a statutory levy program and will explore options for seeking additional funding from industry bodies and other partners to contribute to priority research activities.

Priorities

1. Support increased dissemination and application and uptake of RD&E outputs.
2. Encourage involvement of individuals and organisations in horse RD&E activities.
3. Improve the long term security of RD&E funding for the thoroughbred industry.

Short term goals

- Understand various pathways and constraints for communicating RD&E outputs to industry stakeholders and opportunities for influencing industry practices and behaviours.
- Understand stakeholder views concerning the value of RD&E and opportunities for involvement of individuals & organisations in RD&E activities.
- Consult with thoroughbred industry groups on options for securing RD&E funding.

Long term goals

- Develop effective pathways and modalities for communication of RD&E outputs to industry stakeholders and encouraging application/uptake of strategies by industry.
- Develop strategies to promote the value of RD&E and opportunities for involvement of individuals & organisations in RD&E activities.
- Develop and implement plans for securing long term RD&E funding.
Objective 5: Industry planning, economic benefit studies and market research

Mapped to Economic prosperity / profitability, Sustainability and Social licence pillars.

Priorities

1. Measurement of the economic benefit of the thoroughbred breeding and racing sectors
2. Understand domestic and export market conditions and trends.
3. Review RD&E Plan priorities to ensure the Plan matches current industry needs.

Short term goals

- Commission studies on economic benefit of the thoroughbred industry and wellbeing from pregnancy to racing.
- Consider domestic and export market research studies to understand trends affecting the industry.
- Undertake an annual review of the RD&E Plan.

Long term goals

- Implement, monitor and report achievements against the 2017-22 Thoroughbred Horses Program RD&E Plan.
- Incorporate industry consultation and findings of key projects including commissioned projects into prioritisation and investment decisions for future RD&E to benefit the thoroughbred breeding and racing industry.
Objective 6: Reduce injury and breakdown of horses in work and training

Mapped to Healthy Horses, Wellbeing and Sustainability pillars.

Background

Thoroughbred horses in Australia are actively involved in racing and many other competitive endeavours. Horses need to be conformationally sound and able to tolerate training and competing at levels required for effective competition or work-related performance. A large number of factors have the potential to influence the suitability of a horse for a particular purpose and the ability of a horse to train and compete without risk of injury or breakdown. Factors include areas such as genetics, behaviour, nutrition, handling and training, selection and suitability of equipment, racetrack and training surfaces, and the normal and abnormal response of the musculoskeletal system to training and competition. RD&E provides the objective basis for developing a sound understanding of normal and abnormal development of bone, muscles, ligaments, tendons and joints in young horses and how these structures respond to stimulus associated with training and competition. These findings can then guide development of strategies designed to encourage effective training for purpose while also allowing early detection of potential problems and minimising risks of serious or catastrophic injury.

Priorities

1. Reduce the impact of injuries and breakdowns on horse health or performance.
2. Develop improved methods for measurement of forces operating on musculoskeletal structures in training and competing horses.

Short term goals

- Improved understanding of factors influencing risk of injury or breakdown.
- Development of models or other methods that can improve understanding and optimal athletic management of musculoskeletal structures of horses and the forces operating on them.

Long term goal

- Develop and communicate strategies for better training and injury prevention in athletic horses.
Table 1. Summary of objectives, priorities and goals.

Adopted with minor modification from the 2011–2016 Horse Program R&D Plan with the addition of one new objective (objective 5). These objectives will be reviewed in consultation with industry stakeholders. *s = Short Term, l = Long Term

<table>
<thead>
<tr>
<th>Objective</th>
<th>Priority</th>
<th>Goals - Short Term</th>
<th>Goals - Long Term</th>
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<tbody>
<tr>
<td>1. Improve breeding outcomes and foal health &amp; development.</td>
<td>1.1 Conditions that have serious adverse impacts at horse and population levels.</td>
<td>1.1.1s- Development of management and/or treatment strategies designed to improve likelihood of pregnancy following breeding, and of delivery of a live, healthy foal in pregnant mares.</td>
<td>1.1.1l- Communication to industry of strategies designed to improve likelihood of pregnancy following breeding, and of delivery of a live, healthy foal in pregnant mares.</td>
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<td></td>
<td>1.1.2s- Understand risk factors influencing occurrence, severity and prognosis of priority foal conditions.</td>
<td>1.1.2l- Develop improved strategies for detection, treatment/management and prevention of priority foal diseases.</td>
</tr>
<tr>
<td>2. Reduce impact of diseases &amp; parasites.</td>
<td>2.1 Diseases of horses that impact horse health or performance.</td>
<td>2.1.1s- Investigate options for vaccine development for foal diseases.</td>
<td>2.1.1l- Initiate partnerships to develop vaccines for foal health.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1.2s- Improvement in prevention &amp; treatment of priority diseases.</td>
<td>2.1.2l- Communicate strategies for control of priority diseases to industry.</td>
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<td>2.1.3s- Improvements in diagnostics &amp; therapeutics used in diseased horses.</td>
<td>2.1.3l- Communicate strategies for more effective use of diagnostics and therapeutics used in priority diseases of horses.</td>
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<td></td>
<td>2.1.4s- Improvement in prevention of dietary related diseases of horses.</td>
<td>2.1.4l- Communicate strategies for prevention of dietary related disorders.</td>
</tr>
<tr>
<td>2.2 Diseases of horses that impact human health.</td>
<td>2.2.1s- Describe risks, risk management options and constraints or knowledge gaps.</td>
<td>2.2.1l- Implement activities to address gaps or constraints to effective risk management.</td>
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<tr>
<td></td>
<td></td>
<td>2.3 Parasite resistance &amp; parasite related conditions.</td>
<td>2.3.1l- Communicate effective strategies to industry for parasite diagnosis and control.</td>
</tr>
<tr>
<td>3. Improve safety &amp; welfare &amp; environmental sustainability</td>
<td>3.1 Priority conditions or events that impact health, welfare or the environment.</td>
<td>3.1.1s- Improved monitoring of adverse health outcomes in horses and humans associated with horse events.</td>
<td>3.1.1l- Develop and communicate strategies for minimising risks of adverse health outcomes associated with horse events.</td>
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<td></td>
<td></td>
<td>3.1.2s- Understanding of factors influencing horse welfare during routine management as well as during handling, training or competition.</td>
<td>3.1.2l- Develop and communicate strategies for improvement of horse welfare.</td>
</tr>
<tr>
<td>Objective</td>
<td>Priority</td>
<td>Goals - Short Term</td>
<td>Goals - Long Term</td>
</tr>
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<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>3.1.3s- Understanding the environmental impacts associated with horse activities and options for minimising or mitigating adverse impacts and using resources more efficiently.</td>
<td>3.1.3l- Develop and communicate strategies for maintaining natural assets, efficient use of natural resources and minimising adverse environmental impacts associated with horse activities.</td>
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<tr>
<td>4. Education, training and communication.</td>
<td>4.1 Dissemination and application/uptake of R&amp;D outputs.</td>
<td>4.1.1s- Understand various pathways and constraints for communicating R&amp;D&amp;E outputs to industry stakeholders and opportunities for influencing industry practices and behaviours.</td>
<td>4.1.1l- Develop effective pathways and modalities for communication of R&amp;D&amp;E outputs to industry stakeholders and encouraging application/uptake of strategies by industry.</td>
</tr>
<tr>
<td>4.2 Encourage involvement of individuals and organisations in RD&amp;E.</td>
<td>4.2.1s- Understand stakeholder views concerning the value of R&amp;D&amp;E and opportunities for involvement of individuals &amp; organisations in RD&amp;E activities.</td>
<td>4.2.1l- Develop strategies to promote the value of R&amp;D&amp;E and opportunities for involvement of individuals &amp; organisations in RD&amp;E activities.</td>
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<tr>
<td>4.3 Improve long term security of R&amp;D&amp;E funding for the thoroughbred Program.</td>
<td>4.3.1s- Consult with thoroughbred industry groups on options for securing R&amp;D&amp;E funding.</td>
<td>4.3.1l- Develop and implement plans for securing long term R&amp;D&amp;E funding.</td>
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<tr>
<td>5. Industry planning, economic benefit studies and market research.</td>
<td>5.1 Measurement of the economic benefit of the thoroughbred breeding and racing sectors and issues affecting horse demographics.</td>
<td>5.1.1s- Commission studies on economic benefit of the thoroughbred industry and wellbeing from pregnancy to racing.</td>
<td>5.1.1l- Incorporate industry consultation and findings of key projects including commissioned projects into prioritisation and investment decisions for future R&amp;D&amp;E to benefit the thoroughbred breeding and racing industry.</td>
</tr>
<tr>
<td>5.2 Understand domestic and export market conditions and trends.</td>
<td>5.2.1s- Commission domestic and export market research studies.</td>
<td>5.2.1l- As above.</td>
<td></td>
</tr>
<tr>
<td>5.3 Review R&amp;D&amp;E Plan priorities to ensure the Plan matches current industry needs.</td>
<td>5.3.1s- Undertake an annual review of the R&amp;D&amp;E plan.</td>
<td>5.3.1l- Implement, monitor and report on achievements against the 2017-22 Thoroughbred Program R&amp;D&amp;E Plan.</td>
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<tr>
<td>6. Reduce injury &amp; breakdown in horses in work.</td>
<td>6.1 Conditions with serious impacts on horse health or performance.</td>
<td>6.1.1s- Improved understanding of factors influencing risk of injury or breakdown.</td>
<td>6.1.1l- Develop and communicate strategies for better training and injury prevention in athletic horses.</td>
</tr>
<tr>
<td>6.2 Improved methods for measurement of forces operating on musculoskeletal structures.</td>
<td>6.2.1s- Development of models or other methods that can improve understanding and optimal athletic management of musculoskeletal structures of horses and the forces operating on them</td>
<td>6.2.1l- As above.</td>
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Immediate actions

Two projects were identified for immediate development:

1. Industry analysis – Measurement of the economic benefit of the thoroughbred breeding and racing sectors

This project will form an updated version of the industry economic analysis report last completed in 2001 (Gordon, 2001) with the new report being focused on the thoroughbred industry. It is noted that Racing Australia has commissioned a higher level industry report with a focus on the Australian racing sector. Discussions with RA will inform the development of the Terms of Reference for this project.

This project topic has been identified as a clear priority for the industry through widespread industry consultation in the lead up to the development of the levy proposal and the formation of the initial Thoroughbred Horses Advisory Panel. The report from this work will inform a variety of decisions about industry strategic management and RD&E investment.

Gordon J. The Horse Industry Contributing to the Australian economy. A report for the Rural Industries Research and Development Corporation. Published by AgriFutures Australia, AgriFutures Australia Publication No 01/083


2. Wellbeing from pregnancy to racing – horse demographics

There is growing interest amongst industry stakeholders and the public community about the movement of horses from foaling to racing and beyond into post-racing careers. More effort is needed to understand industry patterns and factors that influence movement of animals between life and competition stages and into a post-racing career.

The Advisory Panel is aware of recent research related to this topic that has been completed (or is being completed) within Australia. Panel members will consult with industry and research providers to inform the development of a Terms of Reference for this study.

The Panel has also discussed the use of Stud Book data on mare breeding and breeding outcomes for Australian thoroughbreds using past records. Preliminary review of data will be conducted by Advisory Panel members to inform the development of the Terms of Reference.
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