SA Footrot Management Program Review Summary Report

Key Points

1. A comprehensive and independent review of the SA Footrot Management Program found that changes were needed to the current program and an enhanced industry management approach should be adopted as the model for future management of footrot in South Australia.

2. The review recommended that a future footrot control program for South Australia should be jointly designed and managed by industry and government.

3. A transitional program will be required to enable the new program to be designed and implemented.

4. Livestock SA has endorsed the recommendations from the report and will facilitate a steering committee comprising broad representation to develop the enhanced industry footrot management program.

Review Purpose

Footrot is a complex disease of sheep that can lead to severe foot lesions, lameness, production loss and adverse animal welfare outcomes. There are benign and virulent forms of the disease, with varying disease severity which is also influenced by sheep breed and climatic conditions. In 2022, footrot (all forms) was estimated to cost the Australian sheep industry $82.2 million per year from production losses and disease control costs.

Footrot has been subject to official controls for many decades, with the current SA program now fully funded by the South Australian sheep industry. The program was substantially upgraded in 2019, including the adoption of laboratory-based diagnosis. Detection rates have increased since this time. The current annual industry investment is approximately $900,000 (GST exclusive).

Footrot is a notifiable disease under the *Livestock Act 1997* and infected flocks are subject to strict movement restrictions until the disease is eradicated through either destocking or a treatment program.

A review of the South Australian Footrot Management Program was commissioned by Livestock SA following concerns raised within industry regarding the effectiveness of the program and adverse effects, including reduction in sheep presented to south-east saleyards.

Following a select tender process, an independent consultant was appointed to review the program and provide a report that:

- Detailed the current impacts of the program as reported by industry and provide advice as to the veracity of the concerns raised.
- Evaluated options for program amendments to address impacts considering practicality, effectiveness and economics (costs and benefits) for options.

- Provided a detail economic analysis on a select number of options to underpin changes to footrot management in South Australia that will guide program changes to improve cost efficiency and program effectiveness.

The report also provided suggested areas for improvements to the current program and for each alternative to this program considered:

- Potential changes to footrot occurrence on animal health and welfare.
- Disease spread implications, impacts due to increased spread.
- Key components that should be reviewed included surveillance/detection, on farm management, trade impacts (restrictions prevention).
- The costs associated with on-farm management, treatment, and eradication of the disease.
- Other issues raised by the management alternatives.
- Considerations on trade implications (intra- and inter- state) of the footrot management program and the options.
- The industry and government costs of implementing the different improvements.

Review Process

Livestock SA facilitated a workshop with representatives from across industry and government to gain a statewide overview of the state's footrot management, including positives and negatives of the current program and potential changes needed to improve it.

From this workshop it was evident that there was no clear agreement on the program's structure and its effectiveness. It was agreed a detailed review would be beneficial and required to accurately assess the program and determine the best way to invest in footrot management.

In October 2023, Livestock SA contracted Biosecurity Advisory Services and Sapere Research Group to complete a review of the SA Footrot Management Program.

This review involved two stages to objectively conclude the most economical program structure to effectively manage footrot and gain the most benefit from industry investment into the program.

Stage 1: Animal Health Decision Making Framework

Livestock SA and PIRSA co-funded the development of on Animal Health Decision Making Framework. The framework seeks to systematically work through a series of steps.

1. Using PESTLEOSS – (P) Political appetite, (E) Economic returns, (S) Social & ethical considerations, (T) Technical feasibility (L) Legal remit (E) Environmental impact (O) Operational capability and capacity, (S) Safety and (S) Stakeholder engagement – to determine of the proposal to address an animal health problem be worth investing in.
2. If, on balance, these factors show the proposal is worth further consideration for possible investment, then the second step seeks to answer the question who should be making this kind of action/investment.
3. The third step seeks to answer what sort of action/investment might be worth undertaking.
4. The fourth and final step concerns communicating any investment decisions transparently and effectively as industry has a vested interest in knowing how industry funds are being invested and why certain programs are funded, or actions are taken, whilst others aren't.

The framework collates information on an animal health issue, such as footrot, to provide a cost/benefit analysis on investment into the disease. It was developed in consultation with industry and government stakeholders.

Stage 2: Review of the SA Footrot Management Program

Livestock SA funded the subsequent review of the SA Footrot Management Program. Consultation for the review involved a series of one-on-one interviews and an open, state-wide survey.

In total, 62 one-on-one interviews were conducted with a broad range of stakeholders from across the state and included 30 sheep producers, 7 livestock agents, 3 saleyard managers, 2 footrot contractors, 11 footrot experts, 4 PIRSA animal health staff, and 2 private vets.

In total, 276 responses were received through the open, online survey from a range of stakeholders including 250 sheep producers, 21 livestock agents, 10 vets, 22 contractors/consultants, 8 industry representatives and 3 government representatives.

The information collected during this consultation was then used to understand the current program, including areas for improvement, things that currently work well and desired changes to the program moving forward.

A cost/benefit analysis of the current program and three alternative program structures using the Animal Health Decision Making Framework, which included an economic assessment using multi-criteria analysis for each alternative, was performed. This provided an objective understanding of the current program and future program options.

Table 1 outlines the program options that were analysed using the Animal Health Decision Making Framework and includes features of the proposed program and possible positive and negative outcomes of each program option.

The program options were:

1. Current program
2. Enhanced regulatory program
3. Enhanced industry management of footrot
4. Full deregulation (Base Case).

Table 1: Footrot Management Program Options Analysed using the Animal Health Decision Framework

PROGRAM	PROGRAM FEATURES	POSITIVES OF PROGRAM	NEGATIVES OF PROGRAM
OPTION 1 **Current Program**	➢ Costs around $900,000 p.a. ➢ Surveillance to identify infected properties, through awareness, owner reporting & saleyards monitoring. ➢ Free diagnostic services. ➢ Properties with virulent footrot subject to strict movement restrictions. ➢ Infected properties required to manage/eradicate footrot. ➢ General education/support for contractors & vets.	➢ Supported by some sections of the sheep industry & provides a level of confidence of footrot risk management. ➢ Prevents spread of footrot from known infected flocks. ➢ Established history of footrot control & expertise within PIRSA. ➢ Funding helps PIRSA animal biosecurity capacity.	➢ Widespread industry dissatisfaction with the program. ➢ Surveillance component has low sensitivity of detection. ➢ Fear of consequences has led to widespread under-reporting. ➢ Actual prevalence unknown ➢ Producers with unreported footrot continue to trade. ➢ Cost of eradication high & not all producers are capable. ➢ Financial impact of detection largely borne by producers ➢ Emotional impact high for many under restrictions.
OPTION 2 **Enhanced regulatory program**	➢ Likely to cost more than $1 million p.a. ➢ Enhanced surveillance through abattoirs & saleyards. ➢ Strengthened sheep trading declaration system. ➢ Other enhancements also possible to improve support for affected producers.	➢ Favoured by some sections of industry. ➢ Improved surveillance gives program more technical credibility. ➢ May further reduce spread & prevalence of footrot. ➢ Depending on design, could provide more support to producers to control/eradicate.	➢ The program would be more costly. ➢ Availability of on-ground resources to support. ➢ Cooperation from abattoirs & saleyards required. ➢ Surveillance information not captured for platforms. ➢ Likely to be unpopular with most producers, agents & saleyards. ➢ Increased distrust of PIRSA & increased avoidance behaviour likely. ➢ Contrary to national trend for management of endemic diseases
OPTION 3 **Enhanced industry management of footrot**	➢ Likely to cost the same as current program. ➢ Focus on supporting producers to manage footrot. ➢ Formal government-industry partnership for detailed program design & management. ➢ Enhanced education program focussing on identification, control methods, prevention strategies. ➢ Enhanced support for technical specialists & affected producers. ➢ Strengthened sheep trading declaration system. ➢ Illegal to sell affected sheep without disclosure. ➢ Footrot remains notifiable, but no regulatory action taken (unless animal welfare issues etc). ➢ Supply of vaccine does not require approval. ➢ Incentives incorporated & possible R&D investment.	➢ Supports a culture of producer responsibility. ➢ Greater focus on reducing economic & animal welfare impacts. ➢ More consistent with interstate programs. ➢ Removes / reduces stigma associated with footrot. ➢ Should be supported by majority of producers. ➢ Should lead to a long-term improvement in the on-farm impact of footrot. ➢ More rewarding role for PIRSA staff. ➢ Improves EAD detection if producers seek assistance.	➢ Partial deregulation will be unpopular with some sections of industry. ➢ Lack of formal trading restrictions leading to increased spread. ➢ Possible continued lack of interest from producers to improve their practices. ➢ Current lack of technical resources to support producers. ➢ Impact on known true prevalence of footrot uncertain. ➢ PIRSA staff will need to change their operations. ➢ Possible loss of funding for PIRSA staff, & reduced capability. ➢ May be difficulties implementing with current legislation. ➢ Need to be careful that enforcement of remaining regulatory provisions doesn't create similar issues as the current program.
OPTION 4 **Full deregulation**	➢ Footrot deregulated. No longer notifiable. ➢ Focus on owner responsibility for control & buyer beware. ➢ General education & awareness regarding footrot. ➢ Supply of vaccine does not require approval. ➢ Other enhancements possible to improve support for affected producers. ➢ Possible R&D investment.	➢ Greater consistency with interstate programs. ➢ Removes stigma associated with footrot. ➢ Becomes producer responsibility. ➢ Supports increased professionalism within the industry. ➢ More opportunities for private sector to support industry. ➢ Reduced call on industry funds.	➢ Deregulation not favoured by significant proportion of industry. ➢ Producer responsibility – uncertain how many will take seriously. ➢ Current lack of technical resources to support producers. ➢ Lack of formal trading restrictions for infected properties. ➢ Unclear the impact on true prevalence of footrot, although spread from infected properties likely to increase. ➢ Regulatory action only possible for serious animal welfare cases. ➢ Loss of core funding to maintain PIRSA field staff.

Economic Assessment

A multi-criteria analysis (MCA) was used in the Animal Health Decision Framework economic assessment.

Each program option was assessed using the following MCA framework (Table 2).

Table 2: Multi-Criteria Assessment

Criteria	Weighting	Description
Costs to industry and government	1/3	The costs incurred by producers to manage footrot on their properties (including compliance with any regulatory regime). The Government costs of any program to manage footrot, including any ongoing costs for education & support (including subsidies), laboratory diagnostics, compliance monitoring and enforcement.
Benefits to industry	1/3	The benefits of any program or activities undertaken to manage the prevalence and impact of footrot.
Equity considerations	1/3	Assessing the distribution of costs and benefits across industry participants (i.e. is it fair) considering the risk creators and beneficiaries.

Options were scored relative to the Base Case (Option 4 – Full Deregulation) using a 5-point Likert scale as shown in Table 3.

Table 3: Multi-Criteria Assessment Scoring Scale

Cost score	Scale	Benefit score	Scale
0	No change relative to Base Case	**0**	No change relative to Base Case
-1	Insignificant incremental cost	**+1**	Insignificant incremental benefit
-2	Minor incremental cost	**+2**	Minor incremental benefit
-3	Moderate incremental cost	**+3**	Moderate incremental benefit
-4	Major incremental cost	**+4**	Major incremental benefit
-5	Significant incremental cost	**+5**	Significant incremental benefit

Once each criterion was scored for each of the options, the criterions were weighted in accordance with the MCA framework (1/3 each) and the weighted scores were totalled to determine a final weighted score. The preferred option is the option with the highest positive weighted score.

Table 4 below outlines the multi criteria scores for each program option against each assessment criteria and the final weighted score.

Table 4: Multi-Criteria Assessment Scores for Each Program Option

PROGRAM OPTION	MCA 1 ANAYSIS COSTS TO INDUSTRY & GOVERNMENT	MCA 2 ANALYSIS BENEFITS TO INDUSTRY & GOVERNMENT	MCA 3 ANALYSIS EQUITY CONSIDERATION	FINAL WEIGHTED MCA SCORE
OPTION 1 Current Program	-4 Major incremental cost	+2 Minor incremental benefit	-3 Moderately negative impact	**-1.33**
OPTION 2 Enhanced regulatory program	-5 Significant incremental cost	+2 Minor incremental benefit	-3 Moderately negative impact	**-1.67**
OPTION 3 Enhanced industry management	-2 Minor incremental cost	+3 Moderate incremental benefit	+3 Moderately positive impact	**1.33**
OPTION 4 Full deregulation	0 No change from the Base Case	0 No change from the Base Case	0 No change from the Base Case	**0**

Review Findings

From the analysis of the four program options, it was determined that investment into 'Option 3 – Enhanced Industry Management of Footrot' would provide the best value in achieving the aim of preventing the spread of footrot.

Option 3 – Enhanced industry management of footrot

This option was determined by several key themes identified during the consultation and analysis:

- Consistent feedback from stakeholders that a change in the program is needed and the ongoing issues with underreporting of footrot.
- It is also difficult for the current program to effectively undertake the surveillance needed to be an effective regulatory control program.
- A need to reduce stigma associated with footrot currently contributing to underreporting of the disease.
- A move away from regulation of endemic diseases across Australia to a model of increased individual responsibility for disease control.
- Lack of consensus for a full deregulation model by industry stakeholders.

To achieve this new program model, a series of recommendations were made (below):

Recommendation 1

A future footrot control program in South Australia should aim:

To reduce the economic and animal welfare impacts of footrot across the South Australian sheep industry, by enhancing the understanding, diagnosis, prevention and management of footrot using a collaborative industry approach.

- This is a subtle change in the aims of the program.
- The focus is on the whole of the SA sheep industry reducing the overall spread allows for greater support in areas of higher prevalence of the disease.
- Animal welfare concerns associated were raised consistently throughout the consultation and must be included in the aim of the program.
- Management and design of the program should apply the principal of collaboration between industry and government, possibly including through an industry-government oversight committee.

Recommendation 2

A future footrot control program for South Australia should be jointly designed and managed by industry and government.

- A key issue that was raised during consultation was the avoidance of reporting footrot and involvement in the program by producers and more involvement by industry in the program will encourage producer responsibility in controlling footrot and reducing the spread.

Recommendation 3

Enhanced industry management of footrot should be adopted as the model for future management of footrot in South Australia.

- This option is the best option to help achieve the program aims.
- Partial deregulation will help reduce the stigma associated with footrot, leading to increased transparency and remove fears associated with the disease.
- Success of this option will depend on support provided to producers through education, assistance etc.
- Successful implementation of this option will require key considerations including:
  - Level of funding (for activities such as education)
  - Support for affected producers (need professional advice available)
  - Government role in new program (reduced regulation may change role)
  - Subsides/incentives for participation in the program and provide professional assistance
  - Balance in regulation (changing legislative environment with the introduction of the Biosecurity Act and this will need to be considered)
  - Transition program during the design of the new program.

Recommendation 4

Consider approving the existing program application for funding, provided it is acknowledged that it will be managed, where possible, in line with the future intended approach.

Recommendation 5

Communication to industry of the design and time frames for the future footrot control program should be given a high priority and a full description of program features and requirements should be published on the PIRSA website.

- Program should operate with greater transparency, so stakeholders are aware of implications of a footrot diagnosis, how decisions are made and control options.