



Department of
Primary Industries and
Regional Development



Cattle
Industry Funding Scheme

Cattle Industry Funding Scheme Annual Report 2019/2020



Contact details

Rebecca Heath

Department of Primary Industries and Regional Development

IFS@dpird.wa.gov.au

January 2021

Important disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

Copyright © Western Australian Agricultural Authority (Department of Primary Industries and Regional Development), 2021

Contents

Contents	3
From the Chair	4
List of acronyms	5
1. Overview of the Cattle Industry Funding Scheme.....	6
2019/20 Cattle Industry Funding Scheme at a glance	7
2. Industry Management Committee.....	8
Membership terms.....	9
3. Operation of the Cattle Industry Funding Scheme	10
Industry priorities for funding	10
Governance	11
Compliance with the Industry Funding Scheme regulations	12
Industry consultation.....	12
Communications and consultation.....	14
4. Effectiveness of the Scheme	15
5. 2019/2020 approved biosecurity programs.....	17
Surveillance for enzootic bovine leucosis	17
Surveillance for bovine tuberculosis	17
Surveillance for Johne’s disease in cattle.....	18
6. 2019/20 programs funded via ex-CICF	19
Johne’s disease in cattle – targeted surveillance.....	19
WA-based NLIS cattle helpdesk.....	20
7. Research and development.....	22
Early detection of Johne’s disease	22
8. 2019/2020 financial details	24
9. Direction for 2020/2021	27
Appendix 1. Committee terms of reference	29

From the Chair

I am pleased to present the 2019/20 Cattle Industry Funding Scheme (IFS) annual report to the Scheme participants, stakeholders involved in the Western Australian cattle industry and to the Minister for Agriculture and Food.

The focus of the Committee for much of the past year has been progressing the work relating to Johne's disease (JD) (cattle strain) to ensure the Western Australian cattle industry is well-informed on the current situation and the options available to it for JD (cattle strain) management in cattle in Western Australia into the future.

A major milestone for the Committee, and the industry, during 2019/20 was the completion of the extensive targeted surveillance program for JD (cattle strain). The program, undertaken over a two-year period, did not detect any JD (cattle strain) and concluded that JD (cattle strain) was not present in the Western Australian cattle population at a prevalence of 0.2% of herds and 2% of cattle within infected herds (at a 98% level of confidence).

With this information, Western Australia is in the unique position of having been able to show a negligible presence of JD (cattle strain) and, therefore, has the option to continue activities that reduce the risk of JD (cattle strain) entering the State – subject to the will of the WA industry.

The Western Australian cattle industry will be presented with the final results of the targeted surveillance program as well as options on how JD (cattle strain) may be addressed in our State. Cattle producers and industry stakeholders will have the opportunity to put forward their views on how they would like this disease to be managed in the years to come.

The Cattle IFS Management Committee understands that the Western Australian cattle industry is diverse with dairy and beef, agricultural and pastoral, and a mix of *Bos indicus*, *Bos taurus* and dairy breeds – each with a different perspective and risk associated with JD (cattle strain) management. Despite these differences, the industry has consistently highlighted the need for a state-wide strategy to managing JD (cattle strain) – a mark of the industry's understanding that, while there will be different impacts on each sector, the industry's overall interests are the priority.

I would like to thank the Committee members and DPIRD for their executive and technical support, as well as the Western Australian cattle industry for their ongoing commitment to the Cattle Industry Funding Scheme.



Steve Meerwald
Chair, Cattle Industry Funding Scheme



Image 1 – Calves

List of acronyms

c-strain	cattle strain
CIBFSA	Cattle Industry Biosecurity and Food Safety Association
CICA	<i>Cattle Industry Compensation Act 1965</i>
CICF	Cattle Industry Compensation Fund
DNA	deoxyribonucleic acid
DPIRD	Department of Primary Industries and Regional Development
EBL	enzootic bovine leucosis
ELISA	enzyme-linked immunosorbent assay
HT-J PCR	high throughput polymerase chain reaction
IFS	Industry Funding Scheme
JD	Johne's disease
MAP	<i>Mycobacterium avium</i> subspecies <i>paratuberculosis</i>
NGS	next generation sequencing
NLIS	National Livestock Identification System
WA	Western Australia

1. Overview of the Cattle Industry Funding Scheme

In June 2010, the Cattle Industry Funding Scheme (IFS) was introduced to address biosecurity threats relevant to the Western Australian (WA) cattle industry. The Scheme was established by regulation under the *Biosecurity and Agriculture Management Act 2007* to enable cattle producers to identify the pest and disease priorities at a whole-of-industry level and to raise funds for activities to address these priorities.

There are currently three Industry Funding Schemes in operation. In addition to the Cattle IFS, there is a Sheep and Goat IFS and a Grains, Seeds and Hay IFS. The three IFSs operate in a similar manner.

The purpose of the Cattle IFS is to facilitate improvements in the biosecurity, productivity and viability of the WA cattle industry, enabling WA to maintain its global recognition for excellent cattle disease status and product integrity.

For the Cattle IFS, funds are raised through a producer contribution on each chargeable sale. A 'chargeable sale' is the sale of cattle (live or carcasses) that are located on a property within the Scheme's area of operation or moved from the property for the purpose of offering them for sale/slaughter.

Producers do not have to participate in the Scheme – there is a mechanism that allows them to opt out. Opting out does not remove the legal requirement to deal with the pests and diseases to which the Scheme relates, but does disqualify the producer from any benefits provided by the Scheme such as on-ground assistance and compensation.

A seven-member Industry Management Committee oversees the Cattle IFS. The Minister for Agriculture and Food appointed the committee members after inviting industry nominations and receiving advice from an industry-based Appointments Committee. As required by regulation, the majority of the Industry Management Committee are full participants of the Cattle IFS.

The Industry Management Committee is responsible for approving payments made from the IFS Account and approving the biosecurity-related programs funded through the Scheme. They also provide advice to the Minister on the Scheme's area of operation and the contribution rate.

In addition, the Industry Management Committee oversees the funds previously held in the Cattle Industry Compensation Fund (CICF), a fund established under the *Cattle Industry Compensation Act 1965*. This money was transferred to the IFS Account in 2010. Throughout this report, these funds are referred to as the 'ex-CICF funds'.

The State Government, through its Department of Primary Industries and Regional Development (DPIRD), provides the necessary support to ensure proper governance and the effective operation of the Scheme and Management Committee. This includes secretariat, communications, policy and technical support, as well as financial accounting and reporting. Furthermore, the normal regulatory inspection and compliance activities undertaken by DPIRD closely complement the priorities of the Management Committee.

2019/20 Cattle Industry Funding Scheme at a glance

During 2019/20:

- Contributions of 20 cents per head/carcass applied to the sale of all cattle produced in WA
- Contributions totalling \$180 259 were received
- In 2019/20, \$47 844 of this funding was used for surveillance programs for Johne's disease in cattle, enzootic bovine leucosis and bovine tuberculosis
- Committee expenses were \$17 679
- Four producers opted out of the Scheme, with \$14 to be refunded to one of these producers in the 2020/21 financial year
- \$74 550 of the ex-CICF funds were used to co-fund the WA helpdesk for the National Livestock Identification System (NLIS)
- Ex-CICF funds totalling \$27 850 were used for targeted surveillance for Johne's disease in WA cattle
- \$49 676 was used to fund research to develop a method for early detection of Johne's disease. The operational component of this work was funded using ex-CICF funds, whilst staff salaries were funded by the IFS.



Image 2 – Dairy cattle

2. Industry Management Committee

A seven-member Industry Management Committee oversees the Cattle IFS. The Committee terms of reference are at Appendix 1.

Mr Steve Meerwald (Chair) is an experienced agribusiness professional with over 40 years involvement in the livestock sector in Australia and internationally. Steve's career in the livestock export and production sectors has provided him with a comprehensive understanding of the commercial and animal welfare benefits of sound management of biosecurity and associated risk management.

Ms Renata Paliskis (Deputy Chair) is the owner/manager of Cows and Calves as a beef cattle producer and opportunity feedlotter. Renata is a past Chief Executive Officer of the Western Australian Meat Industry Authority.

Ms Lyn Craig is a partner in her family-owned property near Halls Creek, and has been a pastoralist for more than 30 years. Lyn is the current Chair of the Kimberley division of the Pastoralists and Graziers Association of WA, Vice Chair of the Kimberley Rangelands Biosecurity Association and a board member of Regional Development Australia Kimberley.

Mrs Debbie Dowden has worked in partnership with her husband on Challa Station near Mt Magnet since 1995. Debbie has been actively involved in biosecurity issues of the region for more than 10 years; and is currently the secretary of the Rangelands Fibre and Produce Association and a participant in the Australian Rural Leadership Program.

Mr John Giumelli runs a beef herd at Dardanup, following 40 years in the dairy industry. John has always been heavily involved in the politics of the dairy industry, and ran a very successful Dairy Traineeship for TAFE over an eight year period.



Image 3 – Brahman cattle

Mr Locky McTaggart is a cattle farmer at Beermullah. He has 40 years' experience managing a pastoral lease in the Gascoyne region, including 25 years in a pastoral cattle operation. Locky is currently the Pastoral Committee Chair for the Pastoralists and Graziers Association of WA.

Mr Mike Norton is a third generation livestock producer, with a large-scale operation across five different commodities. Mike has a long history in leadership positions with the cattle and livestock industries, including as Chair of the WA NLIS Cattle Committee and SafefarmsWA and as a past President of the WA Farmers Federation.

Membership terms

Name	Position	Expiry of term
Steve Meerwald	Chair	30 June 2022
Renata Paliskis	Deputy Chair	30 June 2022
Lyn Craig	Member	30 June 2021
Debbie Dowden	Member	31 December 2021
John Giumelli	Member	30 June 2022
Locky McTaggart	Member	30 June 2021
Mike Norton	Member	30 June 2021

The Industry Management Committee administers producer contributions on a prioritised basis to assist the WA cattle industry to manage biosecurity risks and improve its productivity and viability.

3. Operation of the Cattle Industry Funding Scheme

Since the introduction of the Cattle IFS in 2010, the Industry Management Committee (the Committee) has governed the collection, management and use of industry funds to deliver a biosecurity funding scheme that benefits the WA cattle industry. During the 2019/20 financial year, the Committee held four ordinary meetings and one out-of-session videoconference, and worked on a number of key activities.

Industry priorities for funding

Johne's disease in cattle: The Committee approved three separate programs targeting Johne's disease (JD) in cattle that were undertaken during 2019/20 – a targeted surveillance program to determine the prevalence of the cattle strain (c-strain) of the disease in WA cattle; a passive surveillance program; and research to develop a DNA-based test to detect JD in the blood of infected animals. The targeted surveillance program, which the Committee approved in 2016/17, was completed by the end of 2019. The research project commenced in 2017/18 and was due to be completed by 30 June 2020. The passive surveillance program is an ongoing program that the Committee reviews annually.

In May 2020, the Committee reviewed the JD passive surveillance program and agreed for it to continue into 2020/21.

Detailed information on the 2019/20 programs targeting JD in cattle, including an overview of the disease and its effects, can be found in Sections 5-7 of this report.

Enzootic bovine leucosis: In April 2019, the Committee agreed to continue a surveillance program for enzootic bovine leucosis (EBL) into 2019/20, with EBL remaining a priority disease for the industry. In May 2020, the Committee once again considered the need for IFS funding to undertake EBL surveillance. Funding was approved for the surveillance to continue into 2020/21. Detailed information on the 2019/20 surveillance program for enzootic bovine leucosis, including an overview of the disease and its effects, is at Section 5 of this report.



Image 4 – Pastoral beef cattle

Bovine tuberculosis: Bovine tuberculosis remained a priority disease for the WA cattle industry, with the Committee approving funding to continue the tuberculosis surveillance program into 2019/20. In May 2020, the Committee approved IFS funding for the program for a further 12 months. Detailed information on the 2019/20 bovine tuberculosis surveillance program, including an overview of the disease and its effects, is at Section 5 of this report.

NLIS helpdesk: In February 2019, the Committee approved IFS funding (ex-CICF) to deliver the NLIS helpdesk in the 2019/20 financial year. In February 2020, the Committee extended the funding into 2020/21. In addition, the Committee approved funding to implement a comprehensive Communications and Engagement Plan in 2020/21. The aim of the Communications and Engagement Plan is to enhance compliance with NLIS reporting and recording for WA cattle. Detailed information on the 2019/20 NLIS helpdesk project is at Section 6 of this report.

Other industry priorities: The Committee was represented on the Cattle, Sheep and Goat Biosecurity Consultative Group. The group was established to provide a forum to advise of, discuss and communicate biosecurity issues that are of importance to the WA cattle, sheep and goat industries. Importantly, the Consultative Group provides a forum to support the Industry Management Committee's determinations on industry priorities for investment.

Since 2010, the Industry Management Committee has governed the collection, management and use of industry funds to deliver a biosecurity funding scheme that benefits the WA cattle industry.

Governance

Strategic plan: The Committee was guided by its [Strategic Plan](#). The Plan documents the purpose, role, goal and strategies of the Committee, as well as criteria for making investment decisions. During the year, the Committee reviewed its Strategic Plan, which was subsequently endorsed in November 2019.

Program monitoring and evaluation: The Committee actively monitored the progress of the IFS-funded programs throughout the year. This included quarterly written and verbal updates on the work undertaken, issues, successes and expenditure.

IFS finances: The Committee monitored the financial position of the IFS over the course of the year. This included quarterly financial reports from DPIRD, as well as expense reports relating to the IFS-funded programs. This oversight helped the Committee ensure that funds were being expended appropriately.

Governance processes: Good governance is an essential part of the operation of the Committee. Committee members registered potential conflicts of interest, which were reviewed at the beginning of each meeting. Furthermore, formal processes were used for decision-making, and the Committee continued to abide by its Code of Conduct and the Public Sector Code of Ethics.

IFS regulations: During the year, the Committee participated in a session where the IFS regulations were reviewed and explained. This was particularly important to help the new Committee members better understand the regulations under which the Scheme and Committee operate.

Compliance with the Industry Funding Scheme regulations

Remittance of IFS contributions: The Committee monitored the remittance of IFS contributions from livestock agents and processors to ensure compliance with the regulations. Where discrepancies occurred, or were suspected, the Committee requested these be followed-up by DPIRD.

Opt out refunds: No applications for refunds of IFS contributions paid during the 2018/19 financial year were received.

IFS area of operation and contribution rate: As required by the IFS regulations, in May 2020 the Committee made its recommendations to the Minister for Agriculture and Food on the 2020/21 Cattle IFS contribution rate and area of operation. The Committee recommended that the contribution rate remain at 20 cents per head/carcass – to be applied to the sale of all cattle produced in WA. The Minister endorsed the Committee’s recommendations, as published in the *Western Australian Government Gazette*.

The Committee will review the contribution rate, in consultation with the industry, once the future direction for managing JD (c-strain) in WA is confirmed.

Industry consultation

Management of JD (c-strain): Following the 2016 national decision to deregulate the management of JD in cattle, the Management Committee, on advice from the WA cattle industry, requested DPIRD continue to regulate JD (c-strain) in cattle. This was to minimise the risk of introducing JD (c-strain) while targeted surveillance was undertaken to determine its prevalence in the WA cattle population.

With the targeted surveillance for JD (c-strain) completed, its prevalence in the WA cattle herd was much better understood. This information was critical to inform decision-making by the WA cattle industry on how JD (c-strain) should be managed into the future. The Management Committee convened a meeting of key stakeholders in February 2020 to discuss the results from the targeted surveillance program and next steps to developing an industry position on the future management of JD (c-strain) in cattle in WA.

Representatives from 10 industry groups, as well as DPIRD, participated in the meeting and identified the process for consulting the industry on the future for managing JD (c-strain) in WA. During the 2019/20 financial year, the Management

Committee worked closely with DPIRD to progress the actions identified at the industry meeting. This included developing:

- a consultation and communications plan
- a consultation paper, which included comprehensive information to enable informed decisions on the preferred option for managing JD (c-strain) in WA cattle into the future; and
- an online consultation platform and associated submission templates.

The consultation and associated communications activities were undertaken in the 2020/21 financial year.

Use of funds held by the Cattle IFS: The Committee rely on advice from the industry on how the funds held by the Cattle IFS should be used. The industry meeting, detailed above, was used as a forum for industry to identify opportunities for IFS investment that would facilitate improvements in the biosecurity, productivity and viability of the WA cattle industry. Suggestions put forward included:

- activities to increase biosecurity awareness and encourage positive attitudes toward biosecurity
- research into Theileria, as a pest that is affecting the WA cattle industry
- developing a framework to help determine what is a 'whole of industry' biosecurity issue compared to a 'farm health' issue; and
- activities that provide value for industry investment such as disease surveillance, animal welfare and education/awareness-raising.



Image 5 – Cattle grazing on winter pastures

General consultation: The release of the 2018/19 annual report was used as a platform for gathering industry views on the operation of the Scheme and performance of the Committee. Passive communications (e.g. radio, articles, emails) were used to encourage stakeholder feedback. Minimal feedback was received; however, the industry meeting (see above) enabled key stakeholder groups to provide feedback directly to the Committee.

Activities to increase producer awareness and understanding of the Scheme, develop networks and encourage industry feedback were undertaken during the year.



Communications and consultation

The Committee participated in various forums and activities to increase producer awareness and understanding of the Scheme. The communication activities that took place during the year included:

- Presenting at various producer/industry meetings
- Participating on the Cattle, Sheep and Goat Industry Biosecurity Consultative Group
- Information displays at major field days
- Media releases resulting in articles in the rural press and radio interviews
- Articles in regional AgMemo and other newsletters.

IFS webpages: During 2019/20 the Cattle IFS provided up-to-date information through its webpages on the DPIRD website. The [IFS webpages](#) include links to key documents such as the strategic plan and annual reports.

Image 6 – Banner used to promote the three IFSs at field days and other events

4. Effectiveness of the Scheme

A total of \$180 259 in contributions to the Cattle Industry Funding Scheme was received during 2019/20.

The number of producers opting out of the Scheme remains extremely low, with only four producers opting out in 2019/20 (Figure 1)¹.

Of the four producers that opted out in 2019/20, only one applied for a refund of their contributions. This amounted to \$13.60.

More than 99% of WA cattle producers participate in the Scheme, which indicates the perceived value of the Scheme to the industry.

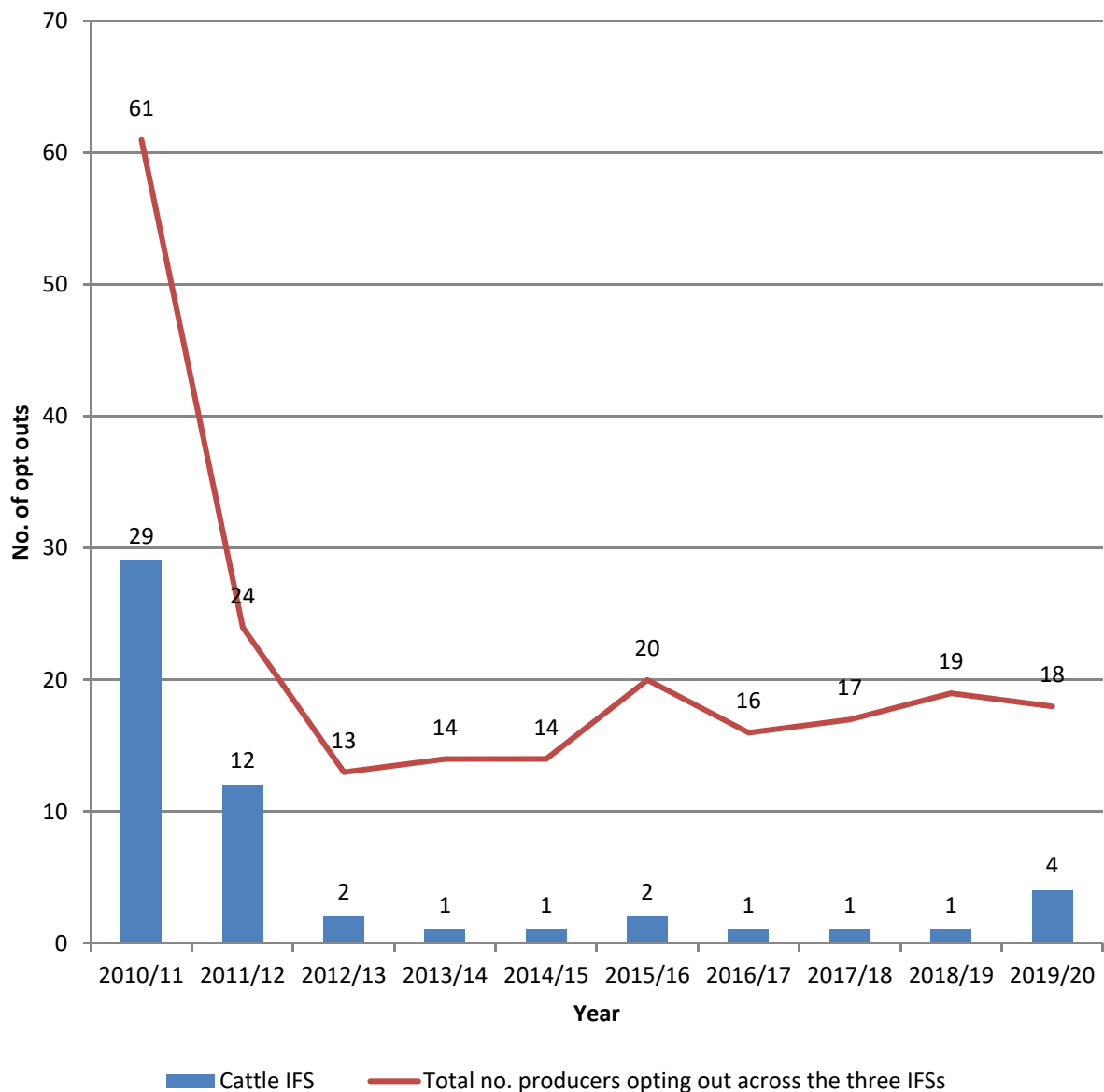


Figure 1 – Number of producers opting out of the Industry Funding Schemes since 2010

¹ 2016 Australian Bureau of Statistics data showed 2552 businesses in WA owned cattle (noting that businesses with only a small number of head were not included in this count).

More than 99% of Western Australian cattle producers participate in the Cattle Industry Funding Scheme, which indicates the importance of the Scheme to the industry.

For the 2019/20 financial year, the estimated number of cattle sales on which IFS contributions were payable was 942 009. Contributions were paid on 901 295 cattle during the year (that is, 96%). This analysis of the collection rate for Cattle IFS contributions uses data from the Australian Bureau of Statistics, Department of Primary Industries and Regions South Australia, the WA Meat Industry Authority and Meat and Livestock Australia to estimate the number of 'chargeable sales' that took place during the year. It must be stressed that there are limitations to the analysis – for example, data are not available for private sales or interstate sales where cattle are moved out via Kununurra or the Tanami Road.

Owing to the difficulties in accurately estimating the number of chargeable sales, the Committee regularly monitors the contributions being paid to the IFS to ensure the regular and correct remittance of contributions from agents and processors.

Owners of stock sold to persons other than through agents or to processors (for example, to exporters or to other producers) are required to pay the IFS contributions direct to the Scheme.



Image 7 – Cattle grazing on pastures

5. 2019/2020 approved biosecurity programs

Surveillance for enzootic bovine leucosis

Enzootic bovine leucosis (EBL) is a viral disease of cattle that infects white blood cells and causes a leukaemia.

The Australian dairy herd is recognised internationally as being free of EBL. In order to maintain this 'EBL free' status, milk monitoring is undertaken. This requires bulk milk testing of one-third of all dairies each year, and is funded by Dairy Australia.

The objective is to protect and enhance Australia's access to the international export trade in milk, dairy products and live exports, as well as enhance confidence for domestic consumption of dairy products.

The WA dairy industry decided to undertake a higher level of monitoring than the national requirements. In WA, a bulk milk test is conducted annually for all dairies; and an intensive bulk milk test is conducted each year on one-third of dairies milking more than 200 cows (meaning all dairies milking more than 200 cows are tested in this way over a three-year period). The expense of conducting these additional tests is funded by the WA cattle industry through the Cattle IFS.

In the 2019/20 financial year, bulk milk testing was carried out on 144 dairies. Investigations were undertaken on five animals displaying symptoms consistent with EBL. All samples were negative for the disease.

Surveillance for bovine tuberculosis

Bovine tuberculosis is an infectious bacterial disease of cattle, affecting the lungs or digestive tract. It can be transmitted to humans from infected animals and from unpasteurised dairy products. Australia is classified as being free from bovine tuberculosis.

In 2019/20, the IFS funded investigations of cattle that reacted to the tuberculin test, which is a pre-export requirement for animals being exported to certain countries. The IFS compensated the owners of the investigated animals, and the IFS received the proceeds from the sale of these animals. Funding to conduct investigations on carcasses with tuberculosis-like defects, as identified by meat inspectors, was also provided as part of the surveillance program.

During 2019/20, 21 animals reacted to the tuberculin test and there were four diagnostic cases (i.e. symptomatic animals). However, follow-up testing revealed that all samples were negative for bovine tuberculosis.

Surveillance for Johne's disease in cattle

The cattle strain of Johne's disease (JD) is a chronic wasting disease caused by the bacterium *Mycobacterium avium* subspecies *paratuberculosis*. The disease has a long incubation period and is spread by infected animals. JD reduces production levels in cattle even before symptoms are apparent. There is currently no treatment.

The Cattle IFS funded a surveillance program that investigated cattle showing symptoms of JD. The program also re-tested cattle that reacted to the pre-export JD blood test. The IFS compensated the owners of animals that had to be slaughtered for more comprehensive testing, and funds were recouped to the IFS from the sale of these animals.

In 2019/20, diagnostic investigations were carried out on 22 animals showing signs of potential JD infection. All animals returned negative results.

During routine pre-export testing to meet health certification requirements, 95 animals returned positive results. These were followed-up with confirmatory testing, and all the animals were resolved as negative for JD in cattle. During the year, DPIRD reviewed and updated its retest policy for animals that test positive for JD through the pre-export blood test.

Table 1 – Costs of the 2019/20 disease surveillance programs for EBL, bovine tuberculosis and JD in cattle

Item	\$
Employee expenses	21 249
Compensation payments	13 039
Laboratory costs	12 486
Staff travel expenses	5358
Freight and mail	1390
Services and contracts	26
Proceeds from the sale of cattle	-5665
Total cost of program	47 884

IFS contributions funded surveillance for enzootic bovine leucosis, bovine tuberculosis and Johne's disease in cattle at a total cost of \$47 884.

6. 2019/20 programs funded via ex-CICF

With the repeal of the *Cattle Industry Compensation Act 1965* (CICA) and the commencement of the IFS regulations under the *Biosecurity and Agriculture Management Act 2007*, funds from the Cattle Industry Compensation Fund (CICF), a fund established under the CICA, were transferred to the Cattle IFS Account. These 'ex-CICF' funds are now managed by the Cattle IFS Management Committee and can be used for activities that will benefit the WA cattle industry.

Johne's disease in cattle – targeted surveillance

As mentioned in the previous section, the cattle strain of JD is a chronic wasting disease caused by the bacterium *Mycobacterium avium* subspecies *paratuberculosis*. During 2017/18, a targeted surveillance program was initiated to determine the JD status of beef and dairy herds across the State. The results of the program will inform the WA cattle industry decision on whether to continue to regulate JD in cattle in WA, including whether to maintain border controls.

A risk-based approach was taken, whereby properties that had imported cattle from the eastern states (where the risk of JD is greater than in WA) from 2005 were invited to take part in testing.

During the 2019/20 financial year, the program was completed with diagnostic testing, data analysis and reporting finalised.

Johne's disease (cattle strain) was not detected through the targeted surveillance program.

The targeted surveillance results were combined with other JD (cattle strain) surveillance data to establish a 98% level of confidence that JD (cattle strain) was not present in the WA cattle population at a prevalence of 0.2% of herds and 2% of cattle within infected herds. These results are reflective of WA's status several years preceding 2018/19 given the significant time it takes for the disease to establish, if present, because of its long incubation period.

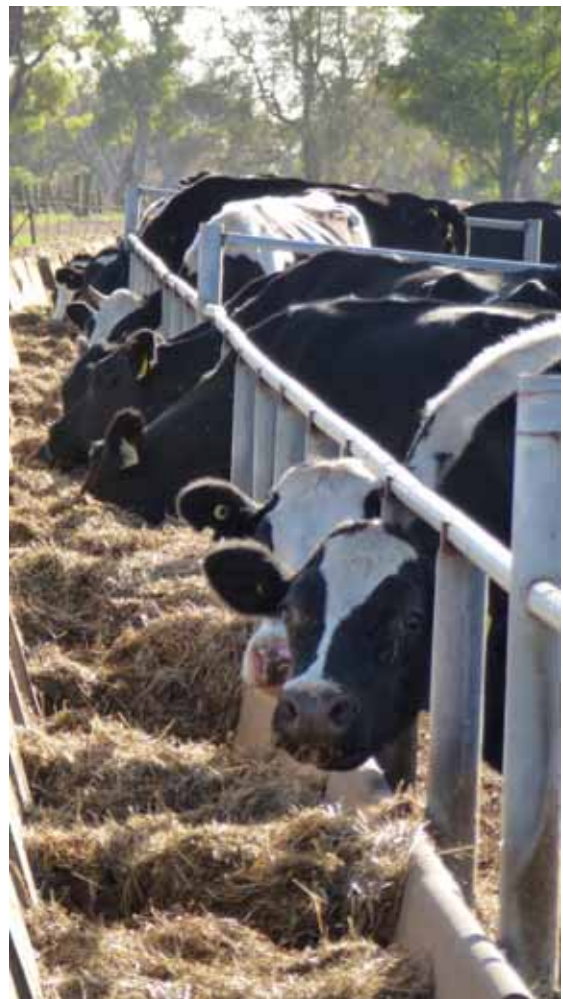


Image 8 – Cattle feeding on hay

Table 2 – Costs of the JD targeted surveillance program

Expenses	2019/20 (\$)	Total cost of program
Laboratory costs	6 195	334 914
Professional services	21 655	21 655
Private veterinarians and administration	-	7 064
Miscellaneous other	-	2 246
Consumables	-	1 982
Freight and mail	-	1 168
Employee expenses/travel	-	3 153
Advertising and promotion	-	566
Operating lease, rental & hire costs	-	132
Total	27 850	372 880

WA-based NLIS cattle helpdesk

In conjunction with the WA-based Cattle Industry Biosecurity and Food Safety Association (CIBFSA), the Cattle IFS has been co-funding the operations of the WA National Livestock Identification System (NLIS) cattle helpdesk since mid-2015. Two-thirds of the costs of this project are funded through the IFS using ex-CICF funds, and one third of the costs are provided by the CIBFSA. The ex-CICF funds were used because IFS funds can only be used for programs relating to a pest or disease that has been declared under section 22 of the *Biosecurity and Agriculture Management Act 2007* and specified under the IFS regulations.

Between 2011 and 2015, the WA-based NLIS helpdesk was fully funded through the IFS (ex-CICF). In 2019/20, the total cost of this service was \$111 268 (Table 3), of which \$36 718 was funded by the CIBFSA.

Table 3 – Costs of the 2019/20 NLIS cattle helpdesk

Expenses	\$
Employee expenses	108 104
Other expenses	1 604
Vehicle	1 559
Total expenses	111 268
CIBFSA contribution	-36 718
Total cost to the Cattle IFS (ex-CICF)	74 550

The NLIS is a national program. All sectors of the cattle industry are required to comply with NLIS regulations to enable lifetime traceability of each animal in the event of a disease outbreak or residue contamination. The program also gives markets confidence in Australia’s product integrity. The national NLIS helpdesk, administered from Sydney, only gives advice on issues relating to the direct use of the NLIS database.

State Government funding covers basic auditing and monitoring activities. The IFS/CIBFSA funding enables the WA-based helpdesk to provide phone, email and onsite advice and support to help WA cattle producers comply with the NLIS regulations – from identification through to managing the movement of stock. During the year, the helpdesk responded to more than 7518 enquiries (Table 4).

Twenty on-site visits were undertaken during the year, as well as presentations to industry stakeholders. A targeted program of onsite audits and visits conducted by DPIRD Biosecurity Officers complements the work of the helpdesk.

Table 4 – Helpdesk enquiries from October 2019 to June 2020

Regions	Telephone	Email	Total
Pastoral area	296	871	1167
Agricultural area	2783	3568	6351
Total	3079	4439	7518



Image 9 – Kimberley cattle

7. Research and development

Early detection of Johne's disease

Johne's disease is a chronic wasting disease caused by infection with the bacteria *Mycobacterium avium* subspecies *paratuberculosis* (MAP). The disease is difficult to detect because an infected animal is unlikely to show symptoms or shed the bacterium in the faeces until 2-6 years after being infected. Furthermore, shedding of the bacterium in the faeces is intermittent. By the time clinical symptoms occur, the animal will have been carrying the bacterium for at least 2-6 years and will have shed the bacterium, which contaminates pastures. Ingestion is the primary route of infection.

Detecting the disease before the animal sheds and contaminates the environment has the potential to enable better management and/or eradication of the disease.

DPIRD developed a next generation DNA sequencing (NGS) technique that was able to detect MAP bacteria in ovine blood samples. The Cattle IFS provided funding to further develop and test the NGS technique to determine if MAP bacterium can be reliably detected in the blood or white cells of JD-infected animals. The aims of the project are to:

1. Optimise the NGS technique to increase the sensitivity of detecting the MAP bacterium in seeded and naturally infected blood
2. Apply the optimised NGS technique to test sheep infected with JD (sheep strain) at regular intervals to determine if circulating MAP bacterium is always present (and detectable) and compare this with faecal samples.



Image 10 – Dairy cattle

Aim #1 was completed in 2018/19. This included determining the optimal volume of blood to use in the analysis as well as identifying the best reaction kits and test conditions to use. Fifty-two sheep were tested using the new technique at the optimised level. The results are presented in Table 5.

Aim #2 was scheduled to be undertaken in 2019/20; however, COVID-19 and other unforeseen issues had significant impacts on staff resources and laboratory availability. Work is ongoing.

Detecting the disease before the animal sheds and contaminates the environment has the potential to enable better management and/or eradication of the disease.

Table 5 – Results of initial testing of optimised NGS method to detect MAP compared to current methods

	NGS (new method) – blood	HT-J PCR (current method) – faeces	ELISA (current method) – serum
Number of positive animals	22	14	2
Number of negative animals	30	35	50
Number of indeterminate results	0	3	0

Table 6 – Costs of the NGS research project in 2019/20

Expenses	\$
Employee expenses	37 121
Operational costs	12 555
Total	49 676

8. 2019/2020 financial details

The Director General of DPIRD administers the IFS finances through an agency special purpose account called the Cattle Industry Declared Pest Control and Compensation Account (the IFS Account). DPIRD manages these funds on behalf of the Committee and prepares financial reports including the end of financial year statement.

- The balance of the IFS Account was \$5 558 848 at 30 June 2020. This included \$5 109 450 of ex-CICF funds and \$449 398 of IFS funds.
- The total cost of the ongoing surveillance programs in 2019/20 was \$47 884².
- \$27 850 was spent on targeted surveillance for JD.
- The 2019/20 NLIS cattle helpdesk project cost \$111 268, with one-third of these costs provided by the CIBFSA¹.
- Research into the NGS technique cost \$49 676.
- Industry contributions to the IFS totalling \$180 259 were received by DPIRD in 2019/20.
- Interest applied to the IFS funds amounted to \$10 523; and \$67 159 of interest was applied to the ex-CICF.
- The Committee costs amounted to \$17 679
- \$372 859 of IFS funds were transferred to the ex-CICF. The JD targeted surveillance program was initially funded using ex-CICF funds, as the Committee were, at that time, uncertain if the IFS contribution rate was adequate to cover the program costs. With the completion of the targeted surveillance, the Committee agreed that IFS funds would be used to fund the targeted surveillance program rather than the more flexible ex-CICF funds.

Tables 7 and 8 contain the financial details for the 2019/20 Cattle IFS. Figure 2 identifies how the funds held in the IFS Account were used during the year.



Image 11 – Brahman cattle

² Some of the costs of the 2019/20 programs were deducted from the Account during the 2020/21 financial year.

Table 7 – Cattle IFS income and expenditure for 2019/20

Expenses	IFS (\$)	Ex-CICF (\$)	Total (\$)
Programs:			
Ongoing surveillance	47 884	-	47 884
Targeted JD surveillance	-	27 850	27 850
NLIS helpdesk	-	111 268	111 268
NGS research	37 121	12 555	49 676
Other expenses:			
Board fees	7 000	-	7 000
Travel expenses	7 690	-	7 690
Meeting expenses	2 201	-	2 201
Advertising/media	518	-	518
Printing	200	-	200
Teleconferencing	70	-	70
Total expenses	102 684	151 673	254 357
Income			
Contributions	180 259	-	180 259
CIBFSA	-	36 718	36 718
Interest revenue	10 523	67 159	77 682
Total income	190 782	103 877	294 659
NET COST OF SERVICE	-88 098	47 796	-40 302

Table 8 – Balance sheet for the Cattle IFS

Balance sheet	IFS (\$)	Ex-CICF (\$)	Total (\$)
EQUITY at 30 June 2020	449 398	5 109 450	5 558 848

Note: the amounts shown in Table 7 for the ongoing surveillance program and the NLIS helpdesk are the total costs of the 2019/20 programs. Some of these costs were debited from the Account during the 2020/21 financial year. As the NGS research and targeted JD surveillance are not annual programs, the amount shown in Table 7 is the actual expenditure from the Account for these items. The balance sheet (Table 8) identifies the actual equity at 30 June 2020.

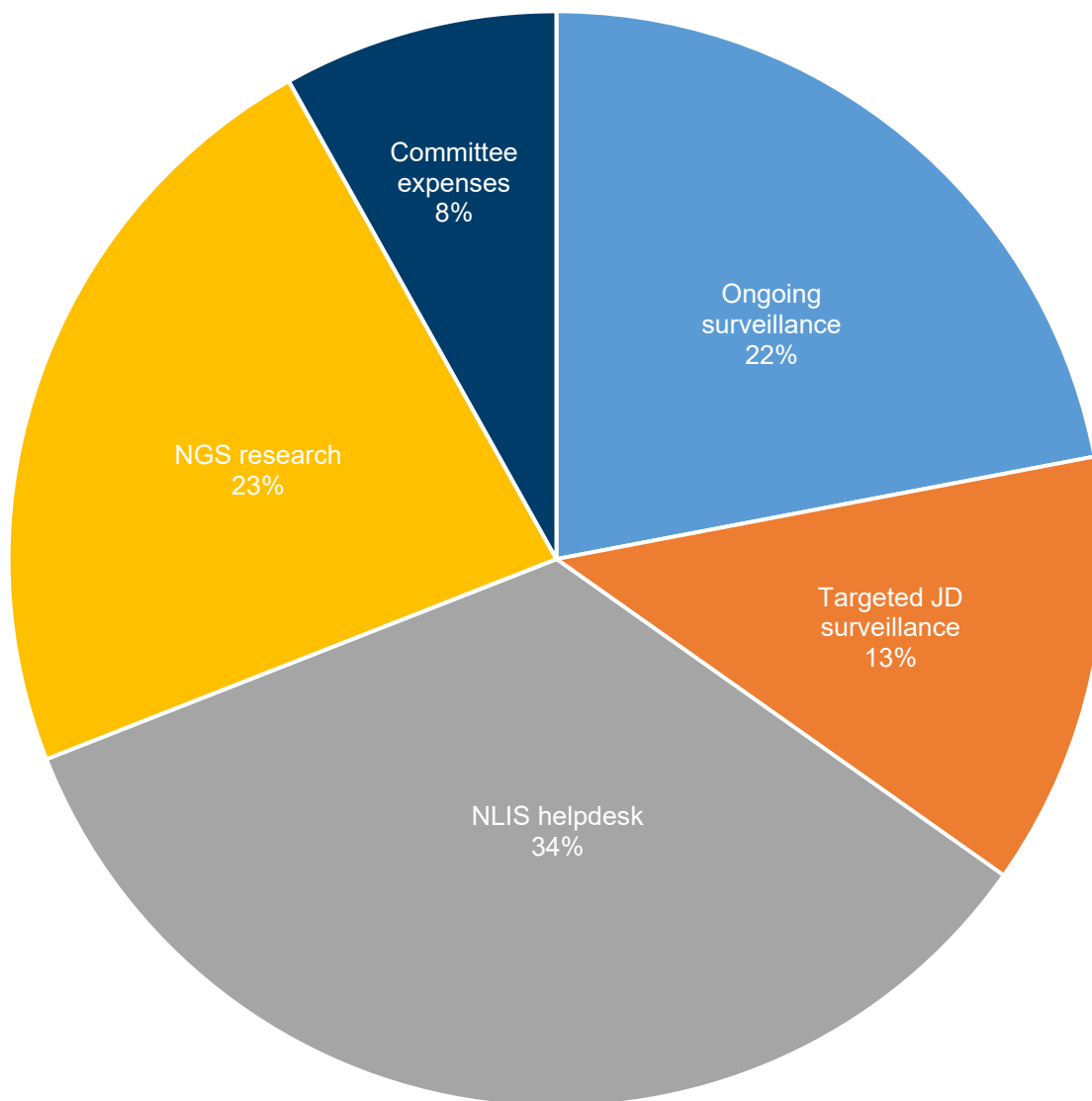


Figure 2 – Use of funds held in the Cattle IFS Account during 2019/20

The net cost of service for the 2019/20 Cattle Industry Funding Scheme was -\$40 302.

9. Direction for 2020/2021

The Industry Management Committee will continue to work with the WA cattle industry to identify how JD (c-strain) in cattle in WA will be managed in the future³ – namely, whether JD (c-strain) in cattle:

- continues to be managed on a state-wide basis via regulation, and if so under what conditions, or
- is deregulated and stakeholders are provided with management tools to prevent and/or manage JD on individual properties, as is done in other states/territories.

A two-stage consultation process is anticipated:

1. Industry invited to lodge written submissions on the preferred option for managing JD (c-strain) in cattle in WA; and
2. A meeting of WA cattle industry representatives to discuss the submissions and determine an industry position.

This decision may have implications for the IFS contribution rate – for example, funding for ongoing surveillance may be required if the industry wants to maintain freedom from JD (c-strain). The Committee will liaise with the industry if a change to the contribution rate is needed.

The Committee also anticipate reinstating the Cattle IFS Research and Development Funding program in 2020/21. The purpose of this program is to providing funding of up to \$50 000 per year to support research and development projects that will benefit the WA cattle industry. The Committee will review the criteria and funding guidelines, and anticipate new projects to commence from 1 July 2021.

In partnership with DPIRD, the Committee will continue to monitor and manage the disease surveillance programs, the NLIS cattle helpdesk and the NGS research. If industry decide to continue a regulated approach to JD (c-strain) into the future, ongoing surveillance of the WA cattle population will be necessary to validate WA's JD (c-strain) status and allow border controls to be kept in place. The Committee will work closely with DPIRD to develop an ongoing surveillance program that will balance the needs of the stakeholders.

The Committee will meet with the other IFS Committees. This will provide an opportunity to reflect on progress made to address the issues identified at the last joint meeting (held in 2017) and to discuss the operation of the IFSs into the future.

2020/21 will also see the Committee undertake its biennial review of its governance practices and procedures to ensure efficient and effective decision-making and accountability.

³ Information on the JD (c-strain) consultation, including the final report, can be found at <https://talkingbiosecurity.dpird.wa.gov.au/management-of-jd-in-cattle-in-wa-consultation>

Industry feedback is critical to the success of the Scheme. The Committee welcomes feedback and input to the Scheme, its programs and cattle industry issues in general.

The Cattle IFS is industry-driven, with industry itself deciding if, when and to what extent the Scheme is used.

The Committee can be contacted at any time through its Executive Officer. The Committee is particularly keen to hear the industry's views on the biosecurity risks and opportunities. Committee members are available to participate in industry forums, meetings and field days to discuss the Scheme and answer any questions from industry.



Appendix 1

Committee terms of reference

1. Act in good faith at all times, and without conflict of interest, to fairly and impartially represent the best interests of the industry concerned and the contributors to the Scheme.
2. Provide effective governance over the Scheme.
3. Discharge the functions conferred on the Management Committee by the *Biosecurity and Agriculture Management Act 2007* (BAM Act) and the enabling Regulations, including but not necessarily limited to:
 - advising the Director General of the Department of Primary Industries and Regional Development on the administration of the prescribed account
 - recommending annually to the Minister for Agriculture and Food the area(s) of the State in which the Scheme should operate
 - recommending annually to the Minister for Agriculture and Food the rate or rates at which contributions are to be paid
 - approving programs and other measures to be implemented under the Scheme
 - approving payments from the prescribed account for compensation in respect of losses (as described in the regulations)
 - consulting annually with the industry for the purpose of ascertaining industry views on the operation of the Scheme and the performance by the committee of its functions
 - reporting at least annually to the Minister for Agriculture and Food on the operation and effectiveness of the Scheme, and any matters relating to the operation of the relevant regulations as the Minister specifies.
4. Undertake such other functions related to the operation of the Scheme as required.