final report

Project code: P.PSH.0712

Prepared by: Dr Rob Barwell
Animal Health Australia

Date published: 11 April 2017

PUBLISHED BY
Meat and Livestock Australia Limited
PO Box 1961
NORTH SYDNEY NSW 2059

Transmissible Spongiform Encephalopathy Freedom Assurance Program (TSEFAP)

This is an MLA Donor Company funded project.

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

Executive summary

A number of transmissible spongiform encephalopathies (TSEs) affect people and animals. Australia enjoys freedom from TSEs, of which BSE (Mad Cow Disease) and Scrapie of sheep are of most interest to the livestock industries. BSE has never been recorded in Australia, whereas Scrapie occurred once, in imported sheep on a single property in 1952, and was promptly eradicated. This lends the country a considerable competitive advantage with its overseas trading partners. Maintenance of this disease-free status requires surveillance and monitoring, with regular reports to the international animal health organisation (OIE).

The TSEFAP is an ongoing surveillance program run by Animal Health Australia (AHA) and has the following objectives:

1. To carry out sufficient surveillance to meet international requirements and assure trading partners, markets and consumers that Australian animals and animal products are free of TSEs and to ensure the early detection of a TSE (should it occur).
2. To demonstrate that no restricted animal material is fed to ruminants.
3. To manage the risks posed by animals imported from countries that have had cases of TSE.
4. To communicate Australia's favourable status for TSEs consistently and efficiently.
5. To ensure Australia is adequately prepared to address any TSE case, should it occur.
6. To identify emerging TSE-related issues and provide a framework for their management, if required.
7. To provide a forum to involve all stakeholders in addressing animal-related TSE issues.
8. To increase the efficiency and consistency of management of animal-related TSE activities.

The TSEFAP was previously funded jointly by state/territory governments and the dairy, wool and red meat industries. This project constitutes the grass-fed beef and sheep meat components of the industry contributions for the surveillance component of the TSEFAP from 1st December 2014 until 30th June 2017.

AHA publishes an annual report on the TSEFAP on their website at https://www.animalhealthaustralia.com.au/what-we-do/disease-surveillance/tse-freedom-assurance-program/ This project report incorporates the three AHA TSEFAP reports for the years 2013/14, 2014/15 and 2015/16.

Transmissible Spongiform Encephalopathies Freedom Assurance Program

2013–2014 FINAL REPORT

Animal Health Australia
Australian Animal Health Council Ltd ACN 071 890 956

CONTENTS

INTRODUCTION **3**

PROGRAM AIM 4
PROGRAM OBJECTIVES 4
STAKEHOLDERS 4

ASSESSMENT AGAINST DELIVERABLES **5**

NATIONAL TSE SURVEILLANCE PROGRAM 5
RUMINANT FEED BAN COMPLIANCE SCHEME 7
IMPORTED ANIMAL QUARANTINE AND SURVEILLANCE SCHEME 13

COMMUNICATIONS **15**

PROGRAM MANAGEMENT **15**

INTRODUCTION

There are a number of transmissible spongiform encephalopathies (TSEs) that affect people and animals. Of most interest to Australia's livestock industries are bovine spongiform encephalopathy (BSE) of cattle and scrapie of sheep.

BSE has never been recorded in Australia. Scrapie has occurred once, in imported sheep on a single property in 1952. It was promptly eradicated. Two cases of feline spongiform encephalopathy have been diagnosed in imported animals in Australian zoos in 1992 (cheetah) and 2002 (Asiatic golden cat). In both instances, effective response measures were undertaken.

Australia's livestock continue to remain free from TSEs. National and international risk assessments have concluded that Australian cattle do not present a BSE risk. However, Australia's status can only be assured if we continue to apply vigorous preventive measures complemented by an ongoing surveillance program meeting international standards. These processes need to be well coordinated, nationally uniform, transparent and auditable in order to maintain our trade access. The TSE Freedom Assurance Program (TSEFAP) was formed to integrate all TSE measures into one national program with clear and nationally integrated operational components and a transparent funding framework.

At the 2003 FMD/BSE Policy Forum it was agreed that a national TSE Freedom Assurance Program be developed with the following operational components:

1. Active TSE surveillance (the current NTSESP);
2. Ruminant feeding restrictions, including audit, feed sampling and testing;
3. Imported ruminant surveillance, including buy-back schemes for certain imported cattle;
4. Surveillance and management of designated imported zoo animals;
5. Communications, including the production of advisory material for industry;
6. Research and development, including validation, adoption and technology transfer of diagnostic tests.

In January 2004, Animal Health Australia (AHA) instigated TSEFAP. Since then, TSEFAP has become an integral part of AHA's work program peaking with the OIE decision in 2006 to rate Australia as BSE-free and again in 2007 to rate Australia's BSE risk as "Negligible".

An independent review of TSEFAP in 2013 found that stakeholders consider the TSEFAP to be a well-managed and positively received program, which is continuing to achieve its objectives.

The TSEFAP is in its third business plan and covers the period from July 2013 to June 2018. It provides the framework to meet the identified requirements for a nationally integrated approach to animal TSE risk-reduction measures in Australia.

This report aims to provide information on the last 12 months (July 2013 to June 2014) of activity undertaken within the TSEFAP.

PROGRAM AIM

TSEFAP will enhance market confidence that Australian animals and animal products are free from TSEs through the structured and nationally integrated management of animal-related TSE activities.

PROGRAM OBJECTIVES

1. Maintain Australia's freedom from BSE and scrapie and highest level international rating
2. To carry out sufficient surveillance to meet international requirements and assure trading partners, markets and consumers that Australian animals and animal products are free of TSEs and to ensure the early detection of a TSE (should it occur).
3. To demonstrate that no restricted animal material is fed to ruminants.
4. To manage the risks posed by animals imported from countries that have had native-born cases of TSE.
5. To provide a forum to involve all stakeholders in addressing animal-related TSE issues.

STAKEHOLDERS

In developing the TSEFAP Business Plan, the following organisations are considered to be the major stakeholders in this exercise and are involved in the development of this process. These stakeholders will also be required to have some involvement with the operations of the TSEFAP.

- Australian Government Department of Agriculture
- Food Standards Australia and New Zealand (FSANZ)
- Australian Commonwealth Scientific & Industrial Research Organisation (CSIRO)
- Department of Primary Industries (NSW)
- Department of Agriculture, Forestry & Fisheries (QLD)
- Department of Primary Industries & Fisheries (NT)
- Department of Agriculture & Food, Western Australia (WA)
- Primary Industries and Resources, South Australia (SA)
- Department of Environment & Primary Industries, Victoria (VIC)
- Department of Primary Industries, Water & Environment, Tasmania (TAS)
- Environment ACT (ACT)
- SAFEMEAT
- Cattle Council of Australia (CCA)
- Australian Lot Feeders' Association (ALFA)
- Australian Dairy Farmers (ADF)
- Sheepmeat Council of Australia (SCA)
- WoolProducers Australia (WPA)
- Goat Industry Council of Australia (GICA)
- Australian Meat Industry Council (AMIC)
- Australian Meat Processor Corporation (AMPC)
- Australian Renderers' Association (ARA)
- Stock Feed Manufacturers' Council of Australia (SFMCA)

ASSESSMENT AGAINST DELIVERABLES

NATIONAL TSE SURVEILLANCE PROGRAM

The aim of the NTSESP is to demonstrate Australia's ongoing freedom for BSE and scrapie through an integrated national program. It aims to achieve this by:

1. Maintaining a TSE surveillance system that is consistent with the OIE Terrestrial Animal Health Code and assures all countries which import cattle and sheep commodities that Australia remains free of these diseases
2. Ensuring the early detection of TSEs should they occur in Australia's livestock so that an appropriate, early response can be mounted under AUSVETPLAN to protect the health of Australia's people and livestock
3. Reviewing the needs and priorities of TSE surveillance and advising AHA and Animal Health Committee (AHC)

OIE Consistent Surveillance System

BSE

The OIE requires that a country must meet a points target which is based on the adult cattle population and the risk category that the OIE recognises the country as being. Australia is a country assessed by the OIE as BSE *Negligible Risk* and therefore should implement OIE Type B surveillance. The application of OIE Type B surveillance is designed to allow the detection of at least one BSE case per 50,000 in the adult cattle population at a confidence level of 95%. Australia's target is to achieve a minimum of 150,000 surveillance points during a seven-year moving window. Australia should also meet OIE recommendations to investigate all clinically consistent cattle regardless of the number of points accumulated and ensure that cattle from the fallen and casualty slaughter subpopulations are also tested.

Table 1 below is used to determine the OIE point values of each BSE surveillance sample collected. Points are assigned to each animal's sample according to the animal's age and cattle subpopulation from which it was collected. The points are determined by the relative likelihoods of expressing BSE by age and sub-population, according to scientific knowledge of the disease. The OIE recommends that samples should be collected from at least three of the four subpopulations, but that ages and sub-populations sampled should reflect the demographics of the cattle herd.

The total points for samples collected may be accumulated over a maximum of seven consecutive years to achieve the target number of points determined in Table 1. Surveillance points remain valid for seven years (the 95th percentile of the incubation period).

Table 1. Surveillance point values for samples collected by subpopulation and age

Routine slaughter	Fallen stock	Casualty slaughter	Clinically consistent
Age ≥2 years and <4 years (young adult)			
0.1	0.2	0.4	260
Age ≥4 years and <7 years (middle adult)			
0.2	0.9	1.6	750
Age ≥7 years and <9 years (older adult)			
0.1	0.4	0.7	220
Age ≥9 years (aged)			
0.0	0.1	0.2	45

The NTSESP for the period 1 July 2013 to 30 June 2014 has collected and tested 189,374 points from cattle that are clinically consistent with BSE, fallen and injured cattle. **All samples were found to be negative for BSE.** Table 2 provides a summary of points collected and includes samples collected by Australian Government Department of Agriculture (AGDA) Biosecurity. Department samples were significantly less than the recommended number this financial year. They have implemented actions to return to their required target next year.

Table 2. Number of samples tested for BSE (and their points) during 2013-14 (exported from National Animal Health Information System (NAHIS) database 1/12/14).

Jurisdiction	No. examined	No. of points	No. positive
NSW	135	41,032	0
NT	31	12,451	0
Qld	157	47,701	0
SA	17	8,412	0
Tas	19	2,865	0
Vic	183	61,183	0
WA	45	15,731	0
Australia	**587**	**189,374**	**0**

Scrapie

An appendix to the OIE's Terrestrial Animal Health Code on scrapie surveillance remains under study. However, the NTSESP scrapie sampling design is consistent with meeting the OIE's recommendations and is based on detecting scrapie with 99% confidence if it comprised 1% of neurological cases. It is assumed that there are about 80 million sheep in Australia and that 50 million of these would be over 18 months of age. Thus the reference population of interest comprises the 5,000

expected neurological cases from this group. This results in a recommendation to examine a minimum of 438 eligible neurological cases each year assuming perfect sensitivity and specificity of the diagnostic system.

It is further assumed that neurological cases in sheep are uniformly distributed throughout Australia. The sampling fraction is therefore the same for each State and is applied to each State's sheep population to help reach the numbers specified in Table 4 below. While scrapie can occur in both sheep and goats, the NTSESP only applies to sheep. Scrapie in goats would only be seen in Australia as a 'spill-over infection' from sheep.

The NTSESP for the period 1 July 2013 to 30 June 2014 has collected and tested 565 samples from sheep that are clinically consistent or injured and fallen sheep. All samples were found to be negative for scrapie. Table 3 provides a summary of samples collected, tested and entered into the NAHIS database and includes AGDA Biosecurity samples.

Table 3. The number of clinically consistent sheep collected and tested for scrapie for 2013-14 (exported from NAHIS database 1/12/2014).

Jurisdiction	No. examined	No. positive
NSW	147	0
NT	0	0
Qld	30	0
SA	44	0
Tas	9	0
Vic	180	0
WA	155	0
Australia	**565**	**0**

RUMINANT FEED BAN COMPLIANCE SCHEME

The aim of the RFBCS is to enhance market confidence that Australian animals and animal products are free from TSEs by demonstrating that no restricted animal material is fed to ruminants. This is achieved by:

1. Coordinating a risk-based compliance inspection/audit program that targets all sectors in the livestock feed chain
2. Ensuring quarantine measures prevent the entry of the BSE agent
3. Complementing official regulatory and inspection/audit programs with quality management and assurance measures implemented by the ruminant livestock and stock feed manufacturing industries
4. Creating awareness and developing the necessary competencies and capacity regarding legislative rules on animal feed and TSEs through education and training programs
5. Collating and reporting these activities at a national level.

Every (financial) year each state undertakes a risk based inspection program. At the same time industry undertakes audits of their constituents against standards that reflect the prohibition of feeding of restricted animal material to ruminants. The results of the inspections and audits are compiled into an annual activity report and provided to SAFEMEAT and the AHC. The annual return for the 2013-14 financial year can be found in tables 4 to 7.

Table 4. Jurisdictional inspections (2013-14)

Jurisdictional Inspections								
	Renderers	RAM only (monogastric) feed manufacturers	Only no RAM feed manufacturers	Mixed feed manufacturers Single lines	Mixed feed manufacturers Separate lines	Retailers	End-users / Farmers[#]	TOTAL
Number requiring inspection / 12 months	38	23	96	27	5	155	161	505
Number inspected	32	19	82	28	5	188	157	511
Number CARs issued in current FY – Critical nonconformities (A)	0	0	0	0	0	2	1	3
Number CARs issued in current FY – Major nonconformities (B)	1	2	3	4	1	22	4	37
Number CARs finalised of those issued in current FY (C)	1	2	3	4	1	21	3	35
Number of CARs carried forward from last report (D)	0	0	0	0	0	0	0	0
Number of CARs carried forward from last report and finalised since last report (E)	0	0	0	0	0	0	0	0
Number of CARs to be carried forward to next FY (F)	0	0	0	0	0	3	2	5
Number of feed samples tested	0	0	21	24	4	12	7	68
Number of feed samples negative for RAM @ 30/06/14	0	0	21	21	4	12	7	65
Number of prosecutions	1	0	0	0	0	0	0	1

NB: Number carried forward from this financial year plus number carried forward from last financial year should equal the total number to be carried forward to next financial year i.e. (A+B-C) +(D-E) = F

Table 5. End-user government inspections 2013-14

	NSW	NT	QLD	SA	TAS	VIC	WA	ACT	TOTAL
Cattle- Feedlot	0	0	0	0	0	0	0	0	0
Cattle – Grass fed	3	4	9	0	0	0	3	0	19
Sheep or goats	4	0	0	3	1	1	0	0	9
Mixed (ruminants with pigs and/or poultry)	31	0	21	11	6	39	12	0	120
Other ruminants (e.g. deer, buffalo, camels)	0	0	0	0	0	1	0	0	1
Pig	3	0	1	0	0	0	0	0	4
Poultry	0	0	1	0	0	0	0	0	1
Other	0	0	3	0	0	0	0	0	3
Total	41	4	35	14	7	41	15	0	157
Number of inspections required to meet Uniform Guidelines	50	1	33	17	5	40	15	0	161

Table 6. Feed samples collected and tested for RAM during 2013-14

	Number of Samples Required	Number of Samples Tested	Number of Positive Results for Ruminant Feed.	Comments
Queensland	16	19	0	No contamination detected
New South Wales	17	13	2	The two positive feed tests were found at a mixed single line manufacturer. Has since installed a separate line.
Australian Capital Territory	0	0	0	Nil
Victoria	20	22	1	One feed sample from a manufacturer returned a positive RAM result. This has been corrected and a feed sample will be tested in 2014-15.
Tasmania	1	1	0	Nil
South Australia	6	6	0	Nil
Western Australia	6	6	0	Nil
Northern Territory	1	1	0	Nil
TOTAL	67	68	3	

Table 7. Industry food safety and QA third party audits

Industry Food Safety & Quality Assurance Third Party Audits					
	Number of program participants	Number inspected during 2013-14	Number CARs issued –Critical nonconformities	Number of CARs referred to Jurisdictions	Number CARs finalised 30 June 2014
LPA Food Safety Program	208,823[1]	7,048[2]	1	1	1
LPA Quality Assurance Program	455[3]	315	0	0	0
National Feedlot Accreditation Scheme	404[4]	388	0	0	0
Dairy Quality Assurance Total	6,269	3,727	0	0	0
QLD	482	482[5]	0	0	0
NSW	693	266[6]	0	0	0
VIC	4,222	2,141	0	0	0
TAS	442	423	0	0	0
SA	265	265	0	0	0
WA	165	150	0	0	0
Feed Safe	127	127[7]	0	0	0
Australian Rendering Standard	67	66[8]	0	0	0
TOTAL	216,145	11,671	1	1	1

There were over 11,000 industry quality assurance audits completed nationally with extremely low levels of non-conformance (just one CAR issued).

Jurisdictional inspection numbers were roughly on target with some variation between the states. Most categories have generally had good levels of compliance with the

[1] Accredited PICs as of 1/07/14
[2] Includes audits conducted as part of random audit program plus NRS (including R Status)
[3] Distinct Number as of 1/07/14 (producers accredited in Cattlecare and/or Flockcare)
[4] Accredited Feedlots (Category A & P) as of 1/07/14
[5] For SFPQ the food safety aspects of 441 participants is monitored via the submission of raw data electronically by processors (i.e. factories) on each of its respective farms. In such instances each processor's farm services officer inspects the farms for animal health matters and reports any concerns via the processor to Biosecurity Queensland. 41 farms are subject to on-site inspections/audits by SFPQ.
[6] All properties are audited every two years
[7] Note as in prior years the major NCRS (two this year) were not RAM related
[8] The one plant that was not audited did not operate in 2013/2014

Ruminant Feed Ban except for mixed (RAM and non-RAM) feed, single-line manufacturers and especially retailers. The jurisdictions have carried out 20% more inspections than are required on retailers for the year. AHA will also provide some RFB communications to this sector in 2014-15.

Importation of stockfeeds, stockfeed ingredients and stockfeed additives

The Department of Agriculture's Biological Imports Program (BIP) undertakes TSE risk assessments on import permit applications for stockfeed ingredients (including fishmeal and fish oil) and stockfeed additives in accordance with the policy *"Importation of Stockfeed and Stockfeed Ingredients – Finalised Risk Management Measures for TSEs, 13 March 2003"*. The Department of Agriculture's Plant Import Operations (PIO) undertakes TSE risk assessments on plant-based stockfeeds in accordance with the same policy. Permit issuing areas will seek case specific advice from Animal and Plant Biosecurity branches where a specific risk assessment falls outside the scope of this policy.

All import permit applications for plant based stockfeeds, stockfeed ingredients and stockfeed additives must be accompanied by a completed 'Production Questionnaire for Animal Feed'. Applications not accompanied by a completed questionnaire will not be processed by the permit issuing areas.

In assessing import permit applications for these commodities the permit issuing areas take into consideration all relevant information including:
- Sourcing of ingredients (e.g. animal, plant, fermentation, synthetic)
- Country of origin of the manufacturing facility
- Manufacturing processes
- Manufacturer's quality systems, and
- Transport and storage of ingredients/final products.

Based on the outcome of the assessment, imported consignments of stockfeed, stockfeed ingredients and stockfeed additives may be sampled and tested for mammalian and avian DNA before being released from quarantine.

NB. The Department of Agriculture undertook a review of risks associated with imported fishmeal, which highlighted the risk of contamination with material from poultry and pigs. During the 2013/2014 reporting period BIP changed import requirements for fishmeal to ensure samples are tested for DNA from mammalian (not just ruminant) and avian sources.

All import permits issued by the Department of Agriculture with the end use 'stockfeed' include the following import conditions to manage the risk of product cross-contamination:

"Analytical testing for the presence of ruminant-derived materials will be required in any of the following cases:

a) The product is transported in bulk and the cleanliness of containers or ships holds before export cannot be guaranteed to the satisfaction of officers from the

Department of Agriculture (the department) e.g. through a pre-approved arrangement;
OR
b) The product is transported in bulk but at inspection on arrival the cleanliness of containers/holds is not confirmed and there is a risk of contamination with ruminant derived materials;
OR
c) The product is packaged in packages that are not clean and new;
OR
d) At inspection upon arrival the integrity of packaging is found to be deficient.

Consignments of stockfeed packed in bags must be accompanied by a declaration from the manufacturer confirming that the product is packaged in clean, new packaging. This provides additional assurance that the risk of cross contamination is acceptably low.

The following tables contain information regarding the permit related activities of BIP and PIO.

Table 8. BIP stockfeed ingredient and additive permit related activities (1 July 2012 – 30 June 2014)

Requirement	**2013/14**	2012/13
Permits requiring mandatory testing on arrival	**10**	13
Permits for non-avian meat and bone meat from NZ	**0**	0
Permits for dairy based stockfeed from NZ	**2**	4
Permits for fishmeal from NZ	**4**	9
Permits for fishmeal from countries other than NZ	**74**	71
Permits requiring DNA testing on arrival if contamination or deficient packaging found.	**217**	340
Number of facilities audited by BIP (or approved 3rd party) under these guidelines	**0**	0
Number of DNA tests performed	**27**	26
Number of positive DNA tests	**0**	0

Table 9. PIO plant based stockfeed permit related activities (1 July 2012 – 30 June 2014)

Requirement	**2013/14**	2012/13
Permits requiring DNA testing on arrival if contamination or deficient packaging is identified	**196**	217
Permits requiring mandatory DNA testing on arrival	**3**	1
Number of facilities inspected by PIO	**13**	33
Number of facilities inspected by an approved third party	**0**	0
Number of ruminant DNA tests performed on plant based products	**10**	4
Number of positive ruminant DNA tests	**0**	0

IMPORTED ANIMAL QUARANTINE AND SURVEILLANCE SCHEME

The Scheme aims to address the risk posed by animals imported from countries with native-born cases of BSE. Cattle imported from countries which have recorded cases of BSE in native-born cattle, may have been exposed to the agent that causes BSE before arriving in Australia. These animals that remain alive are prohibited from entering the human or animal food chains in Australia.

National and international risk assessments have been conducted on the risk that the BSE agent infected Australian cattle, with favourable findings. These assessments included significant scrutiny of the risks posed by cattle imported from countries that subsequently reported native-born cases of BSE.

Every (financial) year each state must undertake surveillance of those cattle identified as being "imported". It was agreed by AHC (May 2004) that a minimum of two contacts with the person responsible for the husbandry of these cattle be made annually. The results of these inspections are compiled into an annual activity report (see Table 10) and provided to SAFEMEAT and the AHC.

Table 10. National (IAQSS) imported cattle report table, 2013-14

Cattle Numbers per State							
	Country of Origin	No. of animals brought forward from end of previous year (4th quarter 2012-13)	No. moved into the state (during 2013-14)	No. dead (during 2013-14)	No. moved out of the state (during 2013-14)	No. left in the state (4th quarter 2013-14)	No. of animals confirmed as alive (4th quarter 2013-14)
NT	*EU/Japan*	0					0
	Canada	0					0
	US	4	0	0	0	4	4
QLD	*EU/Japan*	0					0
	Canada	0					0
	US	25	0	10	0	15	15
NSW	*EU/Japan*	0					0
	Canada	1	0	1	0	0	0
	US	1	0	0	0	1	1
ACT	*EU/Japan*	0					0
	Canada	0					0
	US	0					0
VIC	*EU/Japan*	4	0	2	0	2	2
	Canada	1	0	1	0	0	0
	US	3	0	0	0	3	3
TAS	*EU/Japan*	0					0
	Canada	0					0
	US	0					0
SA	*EU/Japan*	1	0	1	0	0	0
	Canada	0					0
	US	13	0	1	0	12	12
WA	*EU/Japan*	0					0
	Canada	2	0	1	0	1	1
	US	0					0
TOTAL	*EU/Japan*	5	0	3		2	2
	Canada	4	0	3		1	1
	US	46	0	11		35	35
NATIONAL TOTAL		**55**	**0**	**17**	**0**	**38**	**38**

At the end of the 2013/14 reporting period (1st July 2013 to the 30th June 2014) there were a total of 38 cattle imported from countries that had subsequently experienced a case of BSE still residing in Australia.

COMMUNICATIONS

The communications strategy is a support component of the program and also addresses one of the program objectives of communicating *"Australia's favourable status for TSEs consistently and efficiently*". The strategy is collaborative in nature and seeks to provide a consolidated, credible platform for all stakeholders to communicate the range of issues associated with the assurance program. The strategy seeks to ensure consistency in terms of the message and its delivery.

The AHA website provides a dedicated information centre provided via will provide the basis for a range of tailored initiatives. During the 2013-14 financial year the TSEFAP webpages were updated.

The Ruminant Feed Ban (RFB) brochures for manufacturers, retailers and end-users (explains each sectors responsibilities in relation to RFB legislation) were distributed by industry and government stakeholders. The *RFB Livestock Producers* brochure is sent out with all cattle and sheep NVD books sent to producers in Australia.

The *Bucks for Brains* brochure was reviewed by the National Technical Committee and updated by AHA Communications staff.

PROGRAM MANAGEMENT

The TSEFAP is a program based on cooperation and shared commitment to deliver the program objectives, with AHA as Program Manager. Projects undertaken, as part of the TSEFAP, will only be progressed with the agreement of the member Parties.

The last financial year saw the National Technical Committee (NTC) and National Advisory Committee (NAC) work on a number of issues out of session. These included a major review of the *Protocol for the Management of Designated Zoo Animals Imported from Countries at Risk from Transmissible Spongiform Encephalopathies*, working with the Zoo Animal Health Reference Group. All other project management plans and national guidelines were reviewed by the NTC.

Testing of AGDA samples was previously carried out at the Animal Disease Surveillance Laboratory, Toowoomba. With the closure of that laboratory testing was moved to the Australian Animal Health Laboratory (AAHL), Geelong in October 2013. All stored samples and equipment now reside at AAHL.

animalhealth AUSTRALIA

TSE FREEDOM ASSURANCE PROGRAM

2014 - 2015 REPORT

Contents

INTRODUCTION 3
PROGRAM AIM 4
PROGRAM OBJECTIVES 4
STAKEHOLDERS 4
ASSESSMENT AGAINST DELIVERABLES 5
NATIONAL TSE SURVEILLANCE PROGRAM 5
OIE Consistent Surveillance System 5
RUMINANT FEED BAN COMPLIANCE SCHEME 7
Importation of stockfeeds, stockfeed ingredients and stockfeed additives 11
IMPORTED ANIMAL QUARANTINE AND SURVEILLANCE SCHEME 12
COMMUNICATIONS 14
PROGRAM MANAGEMENT 14

INTRODUCTION

There are a number of transmissible spongiform encephalopathies (TSEs) that affect people and animals. Of most interest to Australia's livestock industries are bovine spongiform encephalopathy (BSE) of cattle and scrapie of sheep.

BSE has never been recorded in Australia. Scrapie has occurred once, in imported sheep on a single property in 1952. It was promptly eradicated. Two cases of feline spongiform encephalopathy have been diagnosed in imported animals in Australian zoos in 1992 (cheetah) and 2002 (Asiatic golden cat). In both instances, effective response measures were undertaken.

Australia's livestock continue to remain free from TSEs. National and international risk assessments have concluded that Australian cattle do not present a BSE risk. However, Australia's status can only be assured if we continue to apply vigorous preventive measures complemented by an ongoing surveillance program meeting international standards. These processes need to be well coordinated, nationally uniform, transparent and auditable in order to maintain our trade access. The TSE Freedom Assurance Program (TSEFAP) was formed to integrate all TSE measures into one national program with clear and nationally integrated operational components and a transparent funding framework.

At the 2003 FMD/BSE Policy Forum it was agreed that a national TSE Freedom Assurance Program be developed with the following operational components:

1. Active TSE surveillance (the current NTSESP);
2. Ruminant feeding restrictions, including audit, feed sampling and testing;
3. Imported ruminant surveillance, including buy-back schemes for certain imported cattle;
4. Surveillance and management of designated imported zoo animals;
5. Communications, including the production of advisory material for industry, etc.;
6. Research and development, including validation, adoption and technology transfer of diagnostic tests.

In January 2004, TSEFAP was instigated by Animal Health Australia (AHA). Since then, TSEFAP has become an integral part of AHA's work program peaking with the OIE decision in 2006 to rate Australia as BSE Free and again in 2007 to rate Australia's BSE risk as "Negligible". The review of the TSEFAP in 2006 showed that all objectives of the TSEFAP had been met.

An independent review of TSEFAP in 2013 found that stakeholders consider the TSEFAP to be a well-managed and positively received program, which is continuing to achieve its objectives.

The TSEFAP is in its third business plan and covers the period from July 2013 to June 2018. It provides the framework to meet the identified requirements for a nationally integrated approach to animal TSE risk-reduction measures in Australia.

This report aims to provide information on the last 12 months (July 2014 to June 2015) of activity undertaken within the TSEFAP.

PROGRAM AIM

TSEFAP will enhance market confidence that Australian animals and animal products are free from TSEs through the structured and nationally integrated management of animal-related TSE activities.

PROGRAM OBJECTIVES

1. Maintain Australia's freedom from BSE and scrapie and the highest level of international rating
2. To carry out sufficient surveillance to meet international requirements and assure trading partners, markets and consumers that Australian animals and animal products are free of TSEs and to ensure the early detection of a TSE (should it occur).
3. To demonstrate that no restricted animal material is fed to ruminants.
4. To manage the risks posed by animals imported from countries that have had native-born cases of TSE.
5. To provide a forum to involve all stakeholders in addressing animal-related TSE issues.

STAKEHOLDERS

In developing the TSEFAP Business Plan, the following organisations are considered to be the major stakeholders in this exercise and are involved in the development of this process. These stakeholders will also be required to have some involvement with the operations of the TSEFAP.

- Australian Government Department of Agriculture
- Food Standards Australia and New Zealand (FSANZ)
- Australian Commonwealth Scientific & Industrial Research Organisation (CSIRO)
- Department of Primary Industries, NSW
- Department of Agriculture & Fisheries, QLD
- Department of Primary Industry & Fisheries, NT
- Department of Agriculture & Food, WA
- Primary Industries and Regions, SA
- Department of Economic Development, Jobs, Transport and Resources, VIC
- Department of Primary Industries, Water & Environment, TAS
- Territory and Municipal Services, ACT
- SAFEMEAT
- Cattle Council of Australia (CCA)
- Australian Lot Feeders' Association (ALFA)
- Australian Dairy Farmers (ADF)
- Sheepmeat Council of Australia (SCA)
- WoolProducers Australia (WPA)
- Goat Industry Council of Australia (GICA)
- Australian Meat Industry Council (AMIC)
- Australian Meat Processor Corporation (AMPC)
- Australian Renderers' Association (ARA)
- Stock Feed Manufacturers' Council of Australia (SFMCA)

ASSESSMENT AGAINST DELIVERABLES

NATIONAL TSE SURVEILLANCE PROGRAM

The aim of the NTSESP is to demonstrate Australia's ongoing freedom for BSE and scrapie through an integrated national program. It aims to achieve this by:

1. Maintaining a TSE surveillance system that is consistent with the OIE Terrestrial Animal Health Code and assures all countries which import cattle and sheep commodities that Australia remains free of these diseases
2. Ensuring the early detection of TSEs should they occur in Australia's livestock so that an appropriate, early response can be mounted under AUSVETPLAN to protect the health of Australia's people and livestock
3. Reviewing the needs and priorities of TSE surveillance and advising Animal Health Australia and Animal Health Committee

OIE Consistent Surveillance System

BSE

The OIE requires that a country must meet a points target which is based on the adult cattle population and the risk category that the OIE recognises the country as being. Australia is a country assessed by the OIE as BSE *Negligible Risk* and therefore should implement OIE Type B surveillance. The application of OIE Type B surveillance is designed to allow the detection of at least one BSE case per 50,000 in the adult cattle population at a confidence level of 95%. Australia's target is to achieve a minimum of 150,000 surveillance points during a seven-year moving window. Australia should also meet OIE recommendations to investigate all clinically consistent cattle regardless of the number of points accumulated and ensure that cattle from the fallen and casualty slaughter subpopulations are also tested.

Table 1 below is used to determine the OIE point values of each BSE surveillance sample collected. Points are assigned to each animal's sample according to the animal's age and cattle subpopulation from which it was collected. The points are determined by the relative likelihoods of expressing BSE by age and sub-population, according to scientific knowledge of the disease. The OIE recommends that samples should be collected from at least three of the four subpopulations, but that ages and sub-populations sampled should reflect the demographics of the cattle herd.

The total points for samples collected may be accumulated over a maximum of seven consecutive years to achieve the target number of points determined in Table 1. Surveillance points remain valid for seven years (the 95th percentile of the incubation period).

TABLE 1: SURVEILLANCE POINT VALUES FOR SAMPLES COLLECTED BY SUBPOPULATION AND AGE

Routine slaughter	Fallen stock	Casualty slaughter	Clinically consistent
Age ≥ 2 years and <4 years (young adult)			
0.1	0.2	0.4	260
Age ≥ 4 years and <7 years (middle adult)			
0.2	0.9	1.6	750
Age ≥ 7 years and <9 years (older adult)			

0.1	0.4	0.7	220
Age ≥ 9 years (aged)			
0.0	0.1	0.2	45

The NTSESP for the period 1 July 2014 to 30 June 2015 has collected and tested 189,374 points from cattle that are clinically consistent with BSE, fallen and injured cattle. **All samples were found to be negative for BSE.**

Table 2 provides a summary of points collected and includes samples collected by Australian Government Department of Agriculture (AGDA) Biosecurity (exported from National Animal Health Information System (NAHIS) database 19/11/2015).

TABLE 2: NUMBER OF SAMPLES TESTED FOR BSE (AND THEIR POINTS) DURING 2014-15.

Jurisdiction	No. examined	No. of points	No. positive
NSW	138	41,376.7	0
NT	22	2,570.4	0
Qld	233	67,861.6	0
SA	27	13,622.2	0
Tas	33	6,492.9	0
Vic	142	37,738.6	0
WA	38	18,996.4	0
Australia	**633**	**188,658.8**	**0**

Scrapie

An Appendix to the OIE's Terrestrial Animal Health Code on scrapie surveillance remains under study. However, the NTSESP scrapie sampling design is consistent with meeting the OIE's recommendations and is based on detecting scrapie with 99% confidence if it comprised 1% of neurological cases. It is assumed that there are about 80 million sheep in Australia and that 50 million of these would be over 18 months of age. Thus the reference population of interest comprises the 5,000 expected neurological cases from this group. This results in a recommendation to examine a minimum of 438 eligible neurological cases each year assuming perfect sensitivity and specificity of the diagnostic system.

It is further assumed that neurological cases in sheep are uniformly distributed throughout Australia. The sampling fraction is therefore the same for each State and is applied to each State's sheep population to reach the numbers specified in Table 4 below. While scrapie can occur in both sheep and goats, the NTSESP only applies to sheep. Scrapie in goats would only be seen in Australia as a 'spill-over infection' from sheep.

The NTSESP for the period 1 July 2014 to 30 June 2015 has collected and tested 565 samples from sheep that are clinically consistent or injured and fallen sheep. All samples were found to be negative for classical scrapie. Table 3 provides a summary of samples collected, tested and entered into the NAHIS database and includes AGDA Biosecurity samples (exported from NAHIS database 19/11/2015).

Three cases of atypical scrapie were detected between July and December 2014 - two cases in Western Australia and one in Victoria. Atypical scrapie is a non-contagious, sporadic, degenerative brain condition which can arise spontaneously, usually in older sheep and less commonly, in goats. It is not transmissible and is not considered an infectious risk to other livestock or humans.

TABLE 3: THE NUMBER OF CLINICALLY CONSISTENT SHEEP COLLECTED AND TESTED FOR SCRAPIE FOR 2014-15.

Jurisdiction	No. examined	No. positive for classical scrapie
NSW	144	0
NT	0	0
Qld	32	0
SA	56	0
Tas	12	0
Vic	181	0
WA	163	0
Australia	**588**	**0**

RUMINANT FEED BAN COMPLIANCE SCHEME

The aim of the RFBCS is to enhance market confidence that Australian animals and animal products are free from TSEs by demonstrating that no restricted animal material is fed to ruminants. This is achieved by:

1. Coordinating a risk-based compliance inspection/audit program that targets all sectors in the livestock feed chain
2. Ensuring quarantine measures prevent the entry of the BSE agent
3. Complementing official regulatory and inspection/audit programs with quality management and assurance measures implemented by the ruminant livestock and stock feed manufacturing industries
4. Creating awareness and developing the necessary competencies and capacity regarding legislative rules on animal feed and TSEs through education and training programs
5. Collating and reporting these activities at a national level.

Every (financial) year each state undertakes a risk based inspection program. At the same time industry undertakes audits of their constituents against standards that reflect the prohibition of feeding of restricted animal material to ruminants. The results of the inspections and audits are compiled into an annual activity report and provided to SAFEMEAT and the Animal Health Committee (AHC). The annual return for the 2014-15 financial year can be found in tables 4 to 7.

TABLE 4: JURISDICTIONAL RFB INSPECTIONS (2014-15)

Jurisdictional Inspections								
	Renderers	RAM only (monogastric) feed manufacturers	Only no RAM feed manufacturers	Mixed feed manufacturers Single lines	Mixed feed manufacturers Separate lines	Retailers	End-users / Farmers	TOTAL
Number requiring inspection / 12 months	24	17	92	25	5	157	160	**480**
Number inspected	25	25	86	25	10	174	170	**515**
Number CARs issued in current FY –Critical nonconformities (A)	0	0	0	1	0	0	0	**1**
Number CARs issued in current FY –Major nonconformities (B)	0	2	1	3	2	22	3	**33**
Number CARs finalised of those issued in current FY (C)	0	2	1	4	2	22	3	**34**
Number of CARs carried forward from last report (D)	0	0	1	0	0	4	2	**7**
Number of CARs carried forward from last report and finalised since last report-(E)	0	0	1	0	0	4	2	**7**
Number of CARs to be carried forward to next FY (F)	0	0	0	0	0	0	0	**0**
Number of feed samples tested	0	0	8	25	10	5	17	**65**
Number of feed samples negative for RAM @ 30/06/15	0	0	8	24	10	5	16	**63**
Number of prosecutions	0	0	0	0	0	0	0	**0**

NB: Number carried forward from this financial year plus number carried forward from last financial year should equal the total number to be carried forward to next financial year i.e. (A+B-C) +(D-E) = F

TABLE 5: END-USER GOVERNMENT INSPECTIONS 2014-15

End-users Inspected									
	NSW	NT	QLD	SA	TAS	VIC	WA	ACT	TOTAL
Cattle- Feedlot	0	0	1	0	0	0	1	0	**2**
Cattle – Grass fed	7	4	12	2	0	10	3	0	**38**
Sheep or goats	0	0	0	1	0	3	0	0	**4**
Mixed (ruminants with pigs and/or poultry)	40	0	19	14	8	26	11	0	**118**
Other ruminants (e.g. deer, buffalo, camels)	0	0	0	0	0	0	0	0	**0**
Pigs	3	0	1	0	0	2	0	0	**6**
Poultry	0	0	1	0	1	2	0	0	**4**
Total	**50**	**4**	**34**	**17**	**9**	**43**	**15**	**0**	**172**
Number of inspections required to meet Uniform Guidelines	50	1	33	16	5	40	15	0	**160**

TABLE 6: FEED SAMPLES COLLECTED AND TESTED FOR RAM DURING 2014-15

Number of Feed Samples Collected and Tested for RAM				
	Number of Samples Required	Number of Samples Tested	Number of Positive Results for Ruminant Feed.	Comments
Queensland	16	13	0	Samples were taken from every Mixed Feed – Single and Mixed Feed -Separate lines manufacturer inspected during 2014-15. No contamination detected.
New South Wales	17	18	1	CAR resolved
Australian Capital Territory	0	0	0	
Victoria	20	19	0	Nil
Tasmania	1	1	0	Nil
South Australia	6	7	1	A follow-up sample was collected due to a positive sample from a manufacturer. Follow-up sample was negative. CAR closed
Western Australia	6	6	0	None
Northern Territory	1	1	0	Nil
TOTAL	**67**	**65**	**2**	

TABLE 7: INDUSTRY FOOD SAFETY AND QA THIRD PARTY AUDITS (2014-15)

Industry Food Safety & Quality Assurance Third Party Audits					
	Number of program participants	Number inspected during 2014-15	Number CARs issued –Critical nonconformities	Number of CARs referred to Jurisdictions	Number CARs finalised *30 June 2015*
LPA Food Safety Program	214,078[1]	5,195[2]	1	1	0
LPA Quality Assurance Program	347[3]	251	0	0	0
National Feedlot Accreditation Scheme	402[4]	367	0	0	0
Dairy Quality Assurance Total	6,145	3,701	0	0	0
QLD	448	448[5]	0	0	0
NSW	704	449[6]	0	0	0
VIC	4,115	2,030	0	0	0
TAS	437	403	0	0	0
SA	270	270[7]	0	0	0
WA	171	101	0	0	0
Feed Safe	131	126	0	0	0
Australian Rendering Standard	80	77	0	0	0
TOTAL	221,183	9,717	1	1	0

There were over 9,700 industry quality assurance audits completed nationally with just one CAR issued.

Jurisdictional inspection numbers were roughly on target. Most categories have generally had good levels of compliance with the Ruminant Feed Ban (RFB) except for retailers and mixed (RAM and non-RAM) feed, single-line manufacturers. The jurisdictions have carried out 10% more inspections than are required on retailers for the year. AHA produced a RFB media release targeting stock feed retailers and will work with the Stock Feed Manufacturers' Council of Australia to target RFB communications to mixed feed manufacturers.

[1] Accredited PICs @ 16/07/15
[2] Includes audits conducted as part of random audit program plus NRS (including R Status).
[3] Distinct Number @ 16/07/15 (producers accredited in Cattlecare and/or Flockcare).
[4] Accredited Feedlots (Category A & P) @ 16/07/15.
[5] For SFPQ, the food safety aspects of 421 participants is monitored via the submission of raw data electronically by processors (i.e. factories) on each of its respective farms. In such instances each processor's farm services officer inspects the farms for animal health matters and reports any concerns via the processor to Biosecurity Queensland. 27 farms are subject to on-site inspections/audits by SFPQ.
[6] Dairy farm audits 449. Inspections 27
[7] All dairy farms in SA are audited each year. Whilst some non-conformances were issued in relation to feed, none were critical.

Importation of stockfeeds, stockfeed ingredients and stockfeed additives

The Department of Agriculture's Animal and Biological Import Assessments Branch (ABIAB) undertakes TSE risk assessments on import permit applications for stockfeed ingredients (including fishmeal and fish oil) and stockfeed additives in accordance with the policy *"Importation of Stockfeed and Stockfeed Ingredients – Finalised Risk Management Measures for TSEs, 13 March 2003"*. The Department of Agriculture's Plant Import Operations (PIO) undertakes TSE risk assessments on plant based stockfeeds in accordance with the same policy. Permit issuing areas will seek case specific advice from Animal and Plant Biosecurity branches where a specific risk assessment falls outside the scope of this policy.

All import permit applications for plant based stockfeeds, stockfeed ingredients and stockfeed additives must be accompanied by a completed 'Production Questionnaire for Animal Feed'. Applications not accompanied by a completed questionnaire will not be processed by the permit issuing areas.

In assessing import permit applications for these commodities the permit issuing areas take into consideration all relevant information including:
- Sourcing of ingredients (e.g. animal, plant, fermentation, synthetic)
- Country of origin of the manufacturing facility
- Manufacturing processes
- Manufacturer's quality systems, and
- Transport and storage of ingredients/final products.

Based on the outcome of the assessment imported consignments of stockfeed, stockfeed ingredients and stockfeed additives may be sampled and tested for mammalian and avian DNA before being released from quarantine.

All import permits issued by the Department of Agriculture with the end use 'stockfeed' include the following import conditions to manage the risk of product cross-contamination:

"Analytical testing for the presence of ruminant-derived materials will be required in any of the following cases:

a) The product is transported in bulk and the cleanliness of containers or ships holds before export cannot be guaranteed to the satisfaction of officers from the Department of Agriculture (the department) e.g. through a pre-approved arrangement;
OR
b) The product is transported in bulk but at inspection on arrival the cleanliness of containers/holds is not confirmed and there is a risk of contamination with ruminant derived materials;
OR
c) The product is packaged in packages that are not clean and new;
OR
d) At inspection upon arrival the integrity of packaging is found to be deficient.

Consignments of stockfeed packed in bags must be accompanied by a declaration from the manufacturer confirming that the product is packaged in clean, new packaging. This provides additional assurance that the risk of cross contamination is acceptably low.

The following tables contain information regarding the permit related activities of ABIAB and PIO.

TABLE 8. ABIAB STOCKFEED INGREDIENT AND ADDITIVE PERMIT RELATED ACTIVITIES (1 JULY 2013 – 30 JUNE 2015)

Requirement	2014/15	2013/14
Permits requiring mandatory testing on arrival	**11**	**10**
Permits for non-avian meat and bone meat from NZ	**3**	**0**
Permits for dairy based stockfeed from NZ	**8**	**2**
Permits for fishmeal from NZ	**1**	**4**
Permits for fishmeal from countries other than NZ	**64**	**74**
Permits requiring DNA testing on arrival if contamination or deficient packaging found.	**259**	**217**
Number of facilities audited by BIP (or approved 3rd party) under these guidelines	**0**	**0**
Number of DNA tests performed	**13**	**27**
Number of positive DNA tests	**1**	**0**

TABLE 9. PIO PLANT BASED STOCKFEED PERMIT RELATED ACTIVITIES (1 JULY 2013 – 30 JUNE 2015)

Requirement	2014/15	2013/14
Permits requiring DNA testing on arrival if contamination or deficient packaging is identified	**177**	**196**
Permits requiring mandatory DNA testing on arrival	**2**	**3**
Number of facilities inspected by PIO	**28**	**13**
Number of ruminant DNA tests performed on plant based products	**8**	**10**
Number of positive ruminant DNA tests	**0**	**0**

IMPORTED ANIMAL QUARANTINE AND SURVEILLANCE SCHEME

The Scheme aims to address the risk posed by animals imported from countries with native-born cases of BSE. Cattle imported from countries which have recorded cases of BSE in native-born cattle, may have been exposed to the agent that causes BSE before arriving in Australia. These animals that remain alive are prohibited from entering the human or animal food chains in Australia.

National and international risk assessments have been conducted on the risk that the BSE agent infected Australian cattle, with favourable findings. These assessments included significant scrutiny of the risks posed by cattle imported from countries that subsequently reported native-born cases of BSE.

Every (financial) year each state must undertake surveillance of those cattle identified as being “imported”. It was agreed by AHC (May 2004) that a minimum of two contacts with the person responsible for the husbandry of these cattle be made annually. The results of these inspections are compiled into an annual activity report (see Table 10) and provided to SAFEMEAT and the AHC.

TABLE 10. NATIONAL (IAQSS) IMPORTED CATTLE REPORT TABLE, 2014-15

Cattle Numbers per State							
	Country of Origin	No. of animals brought forward from end of previous year (Q4/2013-14)	No. moved into the State (during 2014-15)	No. dead (during 2014-15)	No. moved out of the State (during 2014-15)	No. left in the State (Q4/ 2014-15)	No. of animals confirmed as alive (Q4/2014-15)
NT	*EU/Japan*	0	0	0	0	0	0
	Canada	0	0	0	0	0	0
	US	4	0	0	0	4	4
QLD	*EU/Japan*	0	0	0	0	0	0
	Canada	0	0	0	0	0	0
	US	15	0	7	0	8	8
NSW	*EU/Japan*	0	0	0	0	0	0
	Canada	0	0	0	0	0	0
	US	1	0	0	0	1	1
ACT	*EU/Japan*	0	0	0	0	0	0
	Canada	0	0	0	0	0	0
	US	0	0	0	0	0	0
VIC	*EU/Japan*	2	0	0	0	2	2
	Canada	0	0	0	0	0	0
	US	3	0	0	0	3	3
TAS	*EU/Japan*	0	0	0	0	0	0
	Canada	0	0	0	0	0	0
	US	0	0	0	0	0	0
SA	*EU/Japan*	0	0	0	0	0	0
	Canada	0	0	0	0	0	0
	US	12	0	0	0	12	12
WA	*EU/Japan*	0	0	0	0	0	0
	Canada	1	0	0	0	1	1
	US	0	0	0	0	0	0
TOTAL	*EU/Japan*	2	0	0	0	2	2
	Canada	1	0	0	0	1	1
	US	35	0	7	0	28	28
NATIONAL TOTAL		**38**	**0**	**7**	**0**	**31**	**31**

At the end of the 2014/15 reporting period (1st July 2014 to the 30th June 2015) there were a total of 31 cattle imported from countries that had subsequently experienced a case of BSE still residing in Australia.

COMMUNICATIONS

The communications strategy is a support component of the program and also addresses one of the program objectives of communicating "*Australia's favourable status for TSEs consistently and efficiently*". The strategy is collaborative in nature and seeks to provide a consolidated, credible platform for all stakeholders to communicate the range of issues associated with the assurance program. The strategy seeks to ensure consistency in terms of the message and its delivery.

The Animal Health Australia website provides a dedicated information centre provided via will provide the basis for a range of tailored initiatives. During the 2014-15 financial year the TSEFAP webpages were updated.

The Ruminant Feed Ban (RFB) brochures for manufacturers, retailers and end-users (explains each sectors responsibilities in relation to RFB legislation) were distributed by industry and government stakeholders. The *RFB Livestock Producers* brochure is sent out with all cattle and sheep NVD books sent to producers in Australia.

The *Bucks for Brains* brochure for TSE surveillance is distributed to producers and veterinarians by state coordinators.

PROGRAM MANAGEMENT

The TSEFAP is a program based on cooperation and shared commitment to deliver the program objectives, with Animal Health Australia as Program Manager. Projects undertaken, as part of the TSEFAP, will only be progressed with the agreement of the member Parties.

The last financial year saw the National Technical Committee (NTC) and National Advisory Committee (NAC) meet once each, via teleconference. The NTC worked on a number of issues out of session over the course of the year. All project management plans and national guidelines were reviewed by the NTC.

animalhealth AUSTRALIA

P 61 2 6232 5522
E aha@animalhealthaustralia.com.au
www.animalhealthaustralia.com.au

TSE FREEDOM ASSURANCE PROJECT

2015 - 2016 REPORT

Contents

INTRODUCTION **3**

PROGRAM AIM 4
PROGRAM OBJECTIVES 4
STAKEHOLDERS 4

ASSESSMENT AGAINST DELIVERABLES **5**

NATIONAL TSE SURVEILLANCE PROJECT 5
OIE Consistent Surveillance System 5
RUMINANT FEED BAN COMPLIANCE SCHEME 7
Importation of stockfeeds, stockfeed ingredients and stockfeed additives 11
IMPORTED ANIMAL QUARANTINE AND SURVEILLANCE SCHEME 12

COMMUNICATIONS **13**

PROGRAM MANAGEMENT **13**

INTRODUCTION

There are a number of transmissible spongiform encephalopathies (TSEs) that affect people and animals. Of most interest to Australia's livestock industries are bovine spongiform encephalopathy (BSE) of cattle and scrapie of sheep.

BSE has never been recorded in Australia. Scrapie has occurred once, in imported sheep on a single property in 1952. It was promptly eradicated. Two cases of feline spongiform encephalopathy have been diagnosed in imported animals in Australian zoos in 1992 (cheetah) and 2002 (Asiatic golden cat). In both instances, effective response measures were undertaken.

Australia's livestock continue to remain free from TSEs. National and international risk assessments have concluded that Australian cattle do not present a BSE risk. However, Australia's status can only be assured if we continue to apply vigorous preventive measures complemented by an ongoing surveillance program meeting international standards. These processes need to be well coordinated, nationally uniform, transparent and auditable in order to maintain our trade access. The TSE Freedom Assurance Program (TSEFAP) was formed to integrate all TSE measures into one national program with clear and nationally integrated operational components and a transparent funding framework.

At the 2003 FMD/BSE Policy Forum it was agreed that a national TSE Freedom Assurance Program be developed with the following operational components:

1. Active TSE surveillance (the current NTSESP);
2. Ruminant feeding restrictions, including audit, feed sampling and testing;
3. Imported ruminant surveillance, including buy-back schemes for certain imported cattle;
4. Surveillance and management of designated imported zoo animals;
5. Communications, including the production of advisory material for industry, etc.;
6. Research and development, including validation, adoption and technology transfer of diagnostic tests.

In January 2004, TSEFAP was instigated by Animal Health Australia (AHA). Since then, TSEFAP has become an integral part of AHA's work program peaking with the OIE decision in 2006 to rate Australia as BSE Free and again in 2007 to rate Australia's BSE risk as "Negligible". The review of the TSEFAP in 2006 showed that all objectives of the TSEFAP had been met.

An independent review of TSEFAP in 2013 found that stakeholders consider the TSEFAP to be a well-managed and positively received program, which is continuing to achieve its objectives.

The TSEFAP is in its third business plan and covers the period from July 2013 to June 2018. It provides the framework to meet the identified requirements for a nationally integrated approach to animal TSE risk-reduction measures in Australia.

This report aims to provide information on the last 12 months (July 2015 to June 2016) of activity undertaken within the TSEFAP.

PROGRAM AIM

TSEFAP will enhance market confidence that Australian animals and animal products are free from TSEs through the structured and nationally integrated management of animal-related TSE activities.

PROGRAM OBJECTIVES

1. Maintain Australia's freedom from BSE and scrapie and the highest level of international rating
2. To carry out sufficient surveillance to meet international requirements and assure trading partners, markets and consumers that Australian animals and animal products are free of TSEs and to ensure the early detection of a TSE (should it occur).
3. To demonstrate that no restricted animal material is fed to ruminants.
4. To manage the risks posed by animals imported from countries that have had native-born cases of TSE.
5. To provide a forum to involve all stakeholders in addressing animal-related TSE issues.

STAKEHOLDERS

The following organisations are considered to be the major stakeholders in this project and are involved in the development of the Business Plan. These stakeholders will also be required to have some involvement with the operations of the TSEFAP.

- Australian Government Department of Agriculture and Water Resources
- Food Standards Australia and New Zealand (FSANZ)
- Australian Commonwealth Scientific & Industrial Research Organisation (CSIRO)
- Department of Primary Industries, NSW
- Department of Agriculture & Fisheries, QLD
- Department of Primary Industry & Fisheries, NT
- Department of Agriculture & Food, WA
- Primary Industries and Regions, SA
- Department of Economic Development, Jobs, Transport and Resources, VIC
- Department of Primary Industries, Parks, Water & Environment, TAS
- Territory and Municipal Services, ACT
- SAFEMEAT
- Cattle Council of Australia (CCA)
- Australian Lot Feeders' Association (ALFA)
- Australian Dairy Farmers (ADF)
- Sheepmeat Council of Australia (SCA)
- WoolProducers Australia (WPA)
- Goat Industry Council of Australia (GICA)
- Australian Meat Industry Council (AMIC)
- Australian Meat Processor Corporation (AMPC)
- Australian Renderers' Association (ARA)
- Stock Feed Manufacturers' Council of Australia (SFMCA)

ASSESSMENT AGAINST DELIVERABLES

NATIONAL TSE SURVEILLANCE PROJECT

The aim of the NTSESP is to demonstrate Australia's ongoing freedom for BSE and scrapie through an integrated national program. It aims to achieve this by:

1. Maintaining a TSE surveillance system that is consistent with the OIE Terrestrial Animal Health Code and assures all countries which import cattle and sheep commodities that Australia remains free of these diseases
2. Ensuring the early detection of TSEs should they occur in Australia's livestock so that an appropriate, early response can be mounted under AUSVETPLAN to protect the health of Australia's people and livestock
3. Reviewing the needs and priorities of TSE surveillance and advising Animal Health Australia and Animal Health Committee

OIE Consistent Surveillance System

BSE

The OIE requires that a country must meet a points target, which is based on the adult cattle population and the risk category that the OIE recognises the country as being. Australia is a country assessed by the OIE as BSE *Negligible Risk* and therefore should implement OIE Type B surveillance. The application of OIE Type B surveillance is designed to allow the detection of at least one BSE case per 50,000 in the adult cattle population at a confidence level of 95%. Australia's target is to achieve a minimum of 150,000 surveillance points during a seven-year moving window. Australia should also meet OIE recommendations to investigate all clinically consistent cattle regardless of the number of points accumulated and ensure that cattle from the fallen and casualty slaughter subpopulations are also tested.

Table 1 below is used to determine the OIE point values of each BSE surveillance sample collected. Points are assigned to each animal's sample according to the animal's age and cattle subpopulation from which it was collected. The points are determined by the relative likelihoods of expressing BSE by age and sub-population, according to scientific knowledge of the disease. The OIE recommends that samples should be collected from at least three of the four subpopulations, but that ages and sub-populations sampled should reflect the demographics of the cattle herd.

The total points for samples collected may be accumulated over a maximum of seven consecutive years to achieve the target number of points determined in Table 1. Surveillance points remain valid for seven years (the 95th percentile of the incubation period).

TABLE 1: SURVEILLANCE POINT VALUES FOR SAMPLES COLLECTED BY SUBPOPULATION AND AGE

Routine slaughter	Fallen stock	Casualty slaughter	Clinically consistent
Age ≥ 2 years and < 4 years (young adult)			
0.1	0.2	0.4	260
Age ≥ 4 years and < 7 years (middle adult)			
0.2	0.9	1.6	750
Age ≥ 7 years and < 9 years (older adult)			
0.1	0.4	0.7	220
Age ≥ 9 years (aged)			
0.0	0.1	0.2	45

The NTSESP for the period 1 July 2015 to 30 June 2016 has collected and tested 188,032 points from cattle that are clinically consistent with BSE, fallen and injured cattle. All samples were found to be negative for BSE.

Table 2 provides a summary of points collected and includes samples collected by Australian Government Department of Agriculture and Water Resources (DAWR), exported from National Animal Health Information System (NAHIS) database on 1/12/2016.

TABLE 2: NUMBER OF SAMPLES TESTED FOR BSE (AND THEIR POINTS) DURING 2015-16.

Jurisdiction	No. examined	No. of points	No. positive
NSW	212	51,088.2	0
NT	31	12,746.2	0
Qld	148	51,488.1	0
SA	35	15,482.6	0
Tas	15	3,474.2	0
Vic	155	39,542.1	0
WA	28	14,210.7	0
Australia	624	188,032.1	**0**

Scrapie

An Appendix to the OIE's Terrestrial Animal Health Code on scrapie surveillance remains under study. However, the NTSESP scrapie sampling design is consistent with meeting the OIE's recommendations and is based on detecting scrapie with 99% confidence if it comprised 1% of neurological cases. It is assumed that there are about 80 million sheep in Australia and that 50 million of these would be over 18 months of age. Thus the reference population of interest comprises the 5,000 expected neurological cases from this group. This results in a recommendation to examine a minimum of 438 eligible neurological cases each year assuming perfect sensitivity and specificity of the diagnostic system.

It is further assumed that neurological cases in sheep are uniformly distributed throughout Australia. The sampling fraction is therefore the same for each State and is applied to each

State's sheep population to reach the numbers specified in Table 4 below. While scrapie can occur in both sheep and goats, the NTSESP only applies to sheep. Scrapie in goats would only be seen in Australia as a 'spill-over infection' from sheep.

The NTSESP for the period 1 July 2015 to 30 June 2016 has collected and tested 525 samples from sheep that are clinically consistent or injured and fallen sheep. All samples were found to be negative for classical scrapie. Table 3 provides a summary of samples collected, tested and entered into the NAHIS database and includes DAWR samples (exported from NAHIS database 1/12/2016).

One case of atypical scrapie were detected in NSW in April 2016. Atypical scrapie is a non-contagious, sporadic, degenerative brain condition which can arise spontaneously, usually in older sheep and less commonly, in goats. It is not transmissible and is not considered an infectious risk to other livestock or humans.

TABLE 3: THE NUMBER OF CLINICALLY CONSISTENT SHEEP COLLECTED AND TESTED FOR SCRAPIE FOR 2015-16.

Jurisdiction	No. examined	No. positive for classical scrapie
NSW	185	0
NT	0	0
Qld	19	0
SA	59	0
Tas	14	0
Vic	131	0
WA	117	0
Australia	525	**0**

RUMINANT FEED BAN COMPLIANCE SCHEME

The aim of the RFBCS is to enhance market confidence that Australian animals and animal products are free from TSEs by demonstrating that no restricted animal material is fed to ruminants. This is achieved by:

1. Coordinating a risk-based compliance inspection/audit program that targets all sectors in the livestock feed chain
2. Ensuring quarantine measures prevent the entry of the BSE agent
3. Complementing official regulatory and inspection/audit programs with quality management and assurance measures implemented by the ruminant livestock and stock feed manufacturing industries
4. Creating awareness and developing the necessary competencies and capacity regarding legislative rules on animal feed and TSEs through education and training programs
5. Collating and reporting these activities at a national level.

Every (financial) year each state undertakes a risk based inspection program. At the same time industry undertakes audits of their constituents against standards that reflect the prohibition of feeding of restricted animal material to ruminants. The results of the

inspections and audits are compiled into an annual activity report and provided to SAFEMEAT and the Animal Health Committee (AHC). The annual return for the 2015-16 financial year can be found in tables 4 to 7.

TABLE 4: JURISDICTIONAL RFB INSPECTIONS (2015-16)

Jurisdictional Inspections								
	Renderers	RAM only (monogastric) feed manufacturers	Only no RAM feed manufacturers	Mixed feed manufacturers Single lines	Mixed feed manufacturers Separate lines	Retailers	End-users / Farmers	**TOTAL**
Number requiring inspection / 12 months	24	17	101	27	10	155	157	**492**
Number inspected	25	16	105	27	10	173	160	**516**
Number CARs issued in current FY –Critical nonconformities (A)	0	0	0	1	0	0	0	**1**
Number CARs issued in current FY –Major nonconformities (B)	0	1	2	0	1	30	2	**36**
Number CARs finalised of those issued in current FY (C)	0	1	0	1	1	29	2	**34**
Number of CARs carried forward from last report (D)	0	0	1	0	1	3	0	**5**
Number of CARs carried forward from last report and finalised since last report-(E)	0	0	1	0	1	3	0	**5**
Number of CARs to be carried forward to next FY (F)	0	0	3	0	0	1	0	**4**
Number of feed samples tested	0	0	12	34	6	6	11	**68**
Number of feed samples negative for RAM @ 30/06/16	0	0	12	32	6	6	11	**66**
Number of prosecutions	0	0	0	0	0	0	0	**0**

NB: Number carried forward from this financial year plus number carried forward from last financial year should equal the total number to be carried forward to next financial year i.e. (A+B-C) +(D-E) = F

TABLE 5: END-USER GOVERNMENT INSPECTIONS 2015-16

End-users Inspected									
	NSW	**NT**	**QLD**	**SA**	**TAS**	**VIC**	**WA**	**ACT**	**TOTAL**
Cattle- Feedlot	0	0	0	0	1	0	0	0	1
Cattle – Grass fed	1	4	7	0	1	1	2	0	16
Sheep or goats	0	0	0	3	0	0	1	0	4
Mixed (ruminants with pigs and/or poultry)	47	0	24	13	2	39	12	0	137
Other ruminants (e.g. deer, buffalo, camels)	0	0	0	0	0	0	0	0	0
Pigs	2	0	0	0	0	0	0	0	2
Poultry	0	0	0	0	0	0	0	0	0
Total	**50**	**4**	**31**	**16**	**4**	**40**	**15**	**0**	**160**
Number of inspections required to meet Uniform Guidelines	50	1	33	16	5	37	15	0	157

TABLE 6: FEED SAMPLES COLLECTED AND TESTED FOR RAM DURING 2015-16

Number of Feed Samples Collected and Tested for RAM				
	Number of Samples Required	**Number of Samples Tested**	**Number of Positive Results for Ruminant Feed.**	**Comments**
Queensland	16	20	2	Two ruminant feed samples tested from the one mixed feed – SINGLE lines were RAM positive. A change in product lines, subsequent negative tests on the only remaining no-RAM product (mineral mix) on two occasions, and evidence of actions taken to prevent recurrence of a spill contaminating the no-RAM line (cover installed over open batch hopper) satisfied our inspector that the issue was resolved.
New South Wales	17	19	0	Nil
Australian Capital Territory	0	0	0	Nil
Victoria	18	15	0	Although feed sampling targets were only partially met, all high-risk manufacturers (i.e. mixed common and single lines) were sampled and tested negative, and were found to be fully compliant.
Tasmania	1	1	0	Nil
South Australia	6	7	0	Nil

Western Australia	6	6	0	Nil
Northern Territory	1	1	0	Nil
TOTAL	**65**	**69**	**2**	

TABLE 7: INDUSTRY FOOD SAFETY AND QA THIRD PARTY AUDITS (2015-16)

Industry Food Safety & Quality Assurance Third Party Audits						
		Number of program participants	**Number inspected during 2015-16**	**Number CARs issued – Critical nonconformities**	**Number of CARs referred to Jurisdictions**	**Number CARs finalised 30 June 2016**
LPA Food Safety Program		215,957[1]	3,243[2]	0	0	0
LPA Quality Assurance Program		243[3]	226	0	0	0
National Feedlot Accreditation Scheme		392[4]	414	0	0	0
Dairy Quality Assurance	QLD	432	0[5]	0	0	0
	NW	697	381	0	0	0
	VIC	4,174	2,136	0	0	0
	TAS	440	435	0	0	0
	SA	259	259	0	0	0
	WA	160	50	0	0	0
	Total	6,162	3,261	0	0	0
Feed Safe		137	130	0	0	0
Australian Rendering Standard		88	90[6]	0	2	2
TOTAL		**222,979**	**7,364**	**0**	**2**	**2**

[1] Accredited PICs @ 27/7/16
[2] Includes audits conducted as part of random audit program plus NRS (including R Status)
[3] Distinct Number @ 28/7/16 (producers accredited in Cattlecare and/or Flockcare)
[4] Accredited Feedlots (Category A & P) @ 3/8/16
[5] From a food safety aspect Safe Food gets electronic data via a Central Information Management System (CIMS) for on farm performance from the respective processor (factory) that receives the raw milk. All farms with the exception of a small number are party to these arrangements. The exception being 'Alert Reports' generated from the performance data where after review a Safe Food officer may conduct a farm visit if required. In addition, all farms are engaged by the processor's Farm Services Officers who would report any biosecurity issues directly to Biosecurity Queensland
[6] There has been 78 site audits against the ARA AUS Standard 5008:2007 and the ARA Code of Practice 2011. There has also been 14 site audits conducted against the Standard for use of recycled used cooking oils for animal feed. These 14 UCO audits are not included in the 78 ARA audits. 2 renderers overseen by DOHWA, only 1 audited. 8 renderers overseen by NSWFA and all audited.

There were over 7,300 industry quality assurance audits completed nationally with just one CAR issued.

Jurisdictional inspection numbers were on target. Most categories have generally had good levels of compliance with the Ruminant Feed Ban (RFB) except for stockfeed retailers. The jurisdictions have carried out 10% more inspections than are required on retailers for the year. Animal Health Australia has produced a RFB media release targeting stock feed retailers a year ago, and will repeat this in the coming year.

Importation of stockfeeds, stockfeed ingredients and stockfeed additives

The Department of Agriculture and Water Resources Animal and Biological Import Assessments Branch (ABIAB) undertakes TSE risk assessments on import permit applications for stockfeed ingredients (including fishmeal and fish oil) and stockfeed additives in accordance with the policy *"Importation of Stockfeed and Stockfeed Ingredients – Finalised Risk Management Measures for Transmissible Spongiform Encephalopathies, as revised August 2015"*. The department's Plant Import Operations (PIO) undertakes TSE risk assessments on plant based stockfeeds in accordance with the same policy. Permit issuing areas will seek case specific advice from Animal Biosecurity and Plant Biosecurity branches where a specific risk assessment falls outside the scope of this policy.

All import permit applications for plant-based stock feeds, stock feed ingredients and stock feed additives must be accompanied by a completed 'Production Questionnaire for Animal Feed'. Applications not accompanied by a completed questionnaire will not be processed by the permit issuing areas.

In assessing import permit applications for these commodities the permit issuing areas take into consideration all relevant information including:
- Sourcing of ingredients (e.g. animal, plant, fermentation, synthetic)
- Country of origin of the manufacturing facility
- Manufacturing processes
- Manufacturer's quality systems, and
- Transport and storage of ingredients/final products.

Based on the outcome of the assessment, imported consignments of stockfeed, stockfeed ingredients and stockfeed additives may be sampled and tested for mammalian and avian DNA before being released from biosecurity control.

Consignments of stock feed are subject to analytical testing for the presence of ruminant-derived materials in any of the following cases:
a) The product is transported in bulk and the cleanliness of containers or ships holds before export cannot be guaranteed to the satisfaction of officers from the department through, for example, a pre-approved arrangement;
OR
b) The product is transported in bulk but at inspection on arrival the cleanliness of containers/holds is not confirmed and there is a risk of contamination with ruminant derived materials;
OR
c) The product is packaged in packages that are not clean and new;
OR
d) At inspection upon arrival the integrity of packaging is found to be deficient.

Consignments of stockfeed packed in bags must be accompanied by a declaration from the manufacturer confirming that the product is packaged in clean, new packaging. This provides additional assurance that the risk of cross contamination is acceptably low.

The following tables contain information regarding the permit related activities of ABIAB and PIO:

Table 8. ABIAB stockfeed ingredient and additive permit related activities (1 July 2014 – 30 June 2016)

Requirement	**2015/2016**	**2014/15**
Permits requiring mandatory testing on arrival	**7**	**11**
Permits for non-avian meat and bone meat from NZ	**0**	**3**
Permits for dairy based stockfeed from NZ	**5**	**8**
Permits for fishmeal from NZ	**8**	**1**
Permits for fishmeal from countries other than NZ	**57**	**64**
Permits requiring DNA testing on arrival if contamination or deficient packaging found.	**202**	**259**
Number of facilities audited by BIP (or approved 3rd party) under these guidelines	**0**	**0**
Number of DNA tests performed	**9**	**13**
Number of positive DNA tests	**0**	**1**

Table 9. PIO plant based stockfeed permit related activities (1 July 2014 – 30 June 2016)

Requirement	**2015/2016**	**2014/15**
Permits requiring DNA testing on arrival if contamination or deficient packaging is identified	**133**	**177**
Permits requiring mandatory DNA testing on arrival	**0**	**2**
Number of facilities inspected by PIO	**6**	**28**
Number of ruminant DNA tests performed on plant based products	**0**	**8**
Number of positive ruminant DNA tests	**0**	**0**

IMPORTED ANIMAL QUARANTINE AND SURVEILLANCE SCHEME

The Scheme aims to address the risk posed by animals imported from countries with native-born cases of BSE. Cattle imported from countries which have recorded cases of BSE in native-born cattle, may have been exposed to the agent that causes BSE before arriving in Australia. These animals that remain alive are prohibited from entering the human or animal food chains in Australia.

National and international risk assessments have been conducted on the risk that the BSE agent infected Australian cattle, with favourable findings. These assessments included significant scrutiny of the risks posed by cattle imported from countries that subsequently reported native-born cases of BSE.

Every (financial) year each state must undertake surveillance of those cattle identified as being "imported". The results of these inspections are compiled into an annual activity report and provided to SAFEMEAT and the AHC.

Surveillance was undertaken on all animals by the jurisdictions as part of the IAQSS for the period of 1 July 2015 to 30 June 2016. There are now only 27 cattle remaining alive after the deaths of 4 animals for the year. None of the owners claimed the incentive payments for these animals.

There remain two cattle from EU/Japan in Victoria, one Canadian animal in WA and 24 cattle from the USA in NT (4), Queensland (7), NSW (1), Victoria (3) and SA (9).

COMMUNICATIONS

The communications strategy is a support component of the program and also addresses one of the program objectives of communicating "*Australia's favourable status for TSEs consistently and efficiently*". The strategy is collaborative in nature and seeks to provide a consolidated, credible platform for all stakeholders to communicate the range of issues associated with the assurance program. The strategy seeks to ensure consistency in terms of the message and its delivery.

The Animal Health Australia website provides a dedicated information centre provided via will provide the basis for a range of tailored initiatives. During the 2015-16 financial year the TSEFAP webpages were updated.

The Ruminant Feed Ban (RFB) brochures for manufacturers, retailers and end-users (explains each sectors responsibilities in relation to RFB legislation) were distributed by industry and government stakeholders. The *RFB Livestock Producers* brochure is sent out with all cattle and sheep National Vendor Declaration (NVD) books sent to producers in Australia.

The *Bucks for Brains* brochure for TSE surveillance is distributed to producers and veterinarians by state coordinators.

PROGRAM MANAGEMENT

The TSEFAP is a project based on cooperation and shared commitment to deliver the project objectives, with Animal Health Australia as Project Manager. Sub-projects undertaken, as part of the TSEFAP, will only be progressed with the agreement of the member Parties.

The last financial year saw the National Technical Committee (NTC) meet face to face and the National Advisory Committee (NAC) meet via teleconference. The NTC worked on a number of issues out of session over the course of the year. All project management plans and national guidelines were reviewed by the NTC.

animalhealth AUSTRALIA

P 61 2 6232 5522
E aha@animalhealthaustralia.com.au
www.animalhealthaustralia.com.au