

APPENDIX A

OJD REGIONAL BIOSECURITY PLAN BUSINESS RULES FOR SOUTH AUSTRALIA

Introduction

The latest Agricultural Census in 2010-2011 indicated that there were approximately 10.9 x10⁶ sheep in SA. The following table details the distribution of sheep in various regions of SA.

There are approximately 8,500 registered sheep properties in SA.

Region	Pastoral x10 ⁶	Eyre Pen. x10 ⁶	Mid North & Yorke Pen. x10 ⁶
	1.0	1.4	2.1
Region	KI & Adelaide Hills x10 ⁶	Mallee x10 ⁶	South East x10 ⁶
	0.85	1.7	3.85

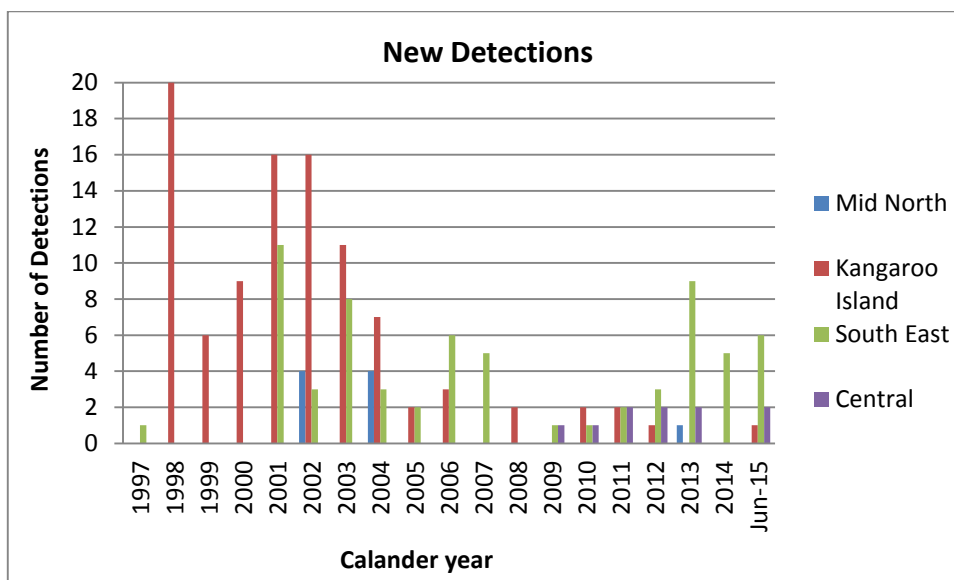
1. OJD HISTORY OF THE REGION/AREA

The following table details the detections of OJD in the various regions of South Australia.

OJD DETECTIONS IN REGIONS OF SOUTH AUSTRALIA

Year	Mid North	Kangaroo Island	South East	Central	Total
1997	0	0	1	0	1
1998	0	20	0	0	20
1999	0	6	0	0	6
2000	0	9	0	0	9
2001	0	16	11	0	17
2002	4	16	3	0	23
2003	0	11	8	0	19
2004	4	7	3	0	14
2005	0	2	2	0	4
2006	0	3	6	0	9
2007	0	0	5	0	5
2008	0	2	0	0	2
2009	0	0	1	1	2
2010	0	2	1	1	4

2011	0	2	2	2	6
2012	0	1	3	2	6
2013	1	0	9	2	12
2014	0	0	5	0	5
06/2015	0	1	6	2	9



In SA **all** OJD detections are investigated as part of the SA OJD Control Program. These investigations may include positive abattoir detections, trace forward and trace back from confirmed OJD infected properties or private veterinarian diagnostics. Investigations involve on-farm faecal testing for confirmation of OJD infection and to quantify the extent of infection. If OJD infection is confirmed, the property will be under order restrictions. Neighbouring properties are then tested to ensure the disease has not spread locally. Tracing information from the original infected property is examined by means of a risk assessment for the likelihood of OJD being on the trace property.

In SA, properties that are subjected to OJD quarantine, can only sell sheep direct to slaughter. The affected property has to adhere to a set of instructions which are designed to limit the possibility of OJD spreading to another location. This is outlined in a Property Disease Management Plan (PDMP). The content of the PDMP usually includes a prolonged vaccination program using Gudair OJD vaccine and/or voluntary destocking. In SA, Gudair Vaccine is provided to OJD infected properties and OJD 'at-risk' properties under a subsidy arrangement. In SA, destocking usually consists of the culling of selected high risk mobs and their progeny but, in some small flock situations, the whole flock may be removed from the property. The property remains under quarantine until on-farm testing confirms that OJD is no longer present or they have completed their requirements of a CVO approved destock program.

The last 3 quarterly reports from the National Animal Health Information System as presented at the meetings of the National OJD Management Committee – Meetings 10 and 11 are shown below. The reports detail the number of animal inspected, the number of PICs inspected, and the number of PICs infected and the percentage of PICs infected.

Ovine Johne's disease abattoir data Oct - Dec 2011
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	108832	598	0	0
	Medium Prevalence	14201	75	0	0
	Total	123033	673	0	0

Ovine Johne's disease abattoir data Jan-March 2012
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	94077	502	1	0.2
	Medium Prevalence	14830	83	0	0
	Total	108907	585	1	0.2

Please note that the abattoir detection in the Jan-Mar 2012 period was a property that is currently under quarantine for OJD.

Ovine Johne's disease abattoir data April-June 2012
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	68625	337	4	1.2
	Medium Prevalence	5360	40	0	0
	Total	73985	377	0	1.1

Please note that the 4 abattoir detections in the April-June 2012 period consisted of a SA property currently under quarantine for OJD, 2 Ballarat market consignments and a direct line from a Victorian property, that is, there were no new detections in SA.

Ovine Johne's disease abattoir data July-Sept 2012
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	125810	541	0	0

	Medium Prevalence	4724	37	1	2.7
	Total	130534	578	1	0.2

Please note that the abattoir detection in the July-Sept 2012 period was a KI property that is currently under quarantine for OJD.

Ovine Johne's disease abattoir data Oct-Dec 2012
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	183371	646	6	0.9
	Medium Prevalence	16424	71	1	1.4
	Total	199795	717	7	1

Ovine Johne's disease abattoir data Jan-March 2013
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	200540	750	1	0.1
	Medium Prevalence	16934	75	0	0
	Unknown	9846	30	1	3.3
	Total	227320	855	2	0.2

Ovine Johne's disease abattoir data April-June 2013
Summary of PIC results for SA

State	Zone level	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	Low Prevalence	129248	582	1	0.2
	Medium Prevalence	9487	63	0	0
	High prevalence	7	1	0	0
	Unknown	11241	18	1	5.6
	Total	149983	664	2	0.3

Ovine Johne's disease abattoir data July-Sept 2013
Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	225,079	1,424	3	0.2

Ovine Johne's disease abattoir data Oct-Dec 2013

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	234,327	1,494	1	0.1

Please note that the abattoir detection in the Oct-Dec 2013 period was a KI property that is currently under quarantine for OJD.

Ovine Johne's disease abattoir data Jan-Mar 2014

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	167,365	1,094	2	0.2

Please note that the abattoir detections in the Jan-Mar 2014 period were from a KI property that is currently under quarantine for OJD and another property that after investigation returned a negative property test.

Ovine Johne's disease abattoir data April-June 2014

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	116,049	707	2	0.3

Note: 1 already infected, 1 new

Ovine Johne's disease abattoir data July-Sept 2014

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	187,563	939	8	0.9

Note: 1 already infected, 1 new infection, 4 had negative property testing and one is destocking.

Ovine Johne's disease abattoir data Oct-Dec 2014

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	261,667	1,160	13	1.1

Note: 5 already infected, 7 new infection, 1 had negative property testing.

Ovine Johne's disease abattoir data Jan-Mar 2015

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	160,427	880	4	0.5

Note: 1 new infection, 2 had negative property testing.

Ovine Johne's disease abattoir data April-June 2015

Summary of PIC results for SA

State	Number of animals inspected	Number of PICs inspected	Number of PICs infected	Percentage of PICs infected
South Australia	93,862	633	2	0.3

Note: 1 Victorian property, 1 awaiting property results

2. AIMS AND OUTCOMES OF THE RBP

The South Australian OJD control program has documented their aims as follows:

- The primary aim of the project is to slow the rate of spread among S.A. sheep flocks so that the incidence of OJD remains at less than 5.0% by 2025.
- To detect OJD infected farms by feed-back from abattoir surveillance, private veterinarian investigation of sheep illthrift and tracing sheep movements to and from infected properties, as well as testing properties that may have been exposed to OJD-contaminated pasture.
- To assist OJD infected sheep properties in controlling the disease in their flocks. This consists of the development of a Property Disease Management Plan (PDMP).

3. ROLES AND RESPONSIBILITIES

The South Australian OJD control program is an ongoing project that is funded by the SA Sheep Industry Fund. The SA Sheep Industry Fund is managed by the SA Sheep Advisory Group. The day-to-day operations of the SA OJD Control Program are conducted by personnel from Primary Industries and Regions South Australia (PIRSA). With regards to the SA OJD Control Program, the project supervisor is Dr Jack van Wijk and the project manager is Dr Peter Nosworthy. Both of these individuals are veterinary surgeons who have previously undertaken Market Assurance Program training and have been involved significantly with OJD for over a decade.

4. RBP OPERATIONAL PLAN

4.1 Communication and Promotion of SA as a Regional Biosecurity Area

In SA, the OJD Control Program has conducted a series of communication sessions in strategic rural locations throughout SA.

The key messages delivered in these sessions aimed to highlight the economic effects of introducing OJD into a naïve flock and the current prevalence of OJD in SA. Other messages conveyed included the safeguards available to deal with an incursion of OJD and the entry requirements for sheep originating from other areas in Australia.

4.2 Minimum Entry Requirements for Sheep into SA

The SA entry requirements are:

1) **Adult sheep and lambs from:**

- An area with a recognised Regional Biosecurity Plan (other than from infected or suspect flocks); **OR**
- SheepMAP flocks; **OR**
- flocks that have had a negative PFC350 or Abattoir 500 test within the last two years **and** the flock is a closed flock (no introduced sheep, including rams); **OR**
- flocks that have had a negative PFC350 or Abattoir 500 test within the last two years **and** all sheep within the preceding 5 years were from;
 - flocks located in a recognised area with a Regional Biosecurity Plan; **OR**
 - SheepMAP flocks.
- flocks that are not part of a recognised Regional Biosecurity Plan, and have attended a show or breeding centre at which they have been housed, fed and watered separately from all other stock, and are returning direct to their source property within 14 days.

Please note that all introduced sheep must have been accompanied by a completed National Sheep Health Statement that has been retained as evidence of the sheep status.

2) **Terminal Lambs:**

- Defined as lambs that **must** be sold for slaughter before they cut their first permanent teeth and are identified by a NLIS (sheep)'T' tag.

4.3 **Financial Management**

The SA Regional Biosecurity Plan has been incorporated into the SA OJD Control program and has become an integral part of it. The funding provided by the SA Sheep Industry Fund to run the SA OJD Control program has met any expense that has been incurred through creating the SA Regional Biosecurity Plan.

4.4 **Assessing the Risk of Sheep Introductions**

In SA the Ceduna roadblock intercepts any consignments of sheep arriving from WA. The accompanying National Sheep Health Statements are rigorously inspected and any anomalies are reported to the compliance department of PIRSA. The appropriate regional Animal Health Advisers conduct the final stage of any noncompliance with introductions. Sheep introductions must meet the requirements as outlined in Section 4.2.

In general if sheep enter SA and have not met the entry requirements outlined in Section 4, the flock may be subjected to quarantine and movement restrictions. Any non-compliant introduced sheep will be subjected to a rigorous risk assessment and likely OJD faecal testing.

Factors that may initiate an investigation of imported sheep include

- not sourced from a closed flock
- introduction of lower assurance sheep
- anomalies that appear on the National Sheep Health Statement
- unexpected positive abattoir monitoring
- positive diagnosis of OJD in imported sheep through a private veterinarian investigation

4.5 **Action Required**

a) **High-Risk Sheep Introduced:**

In SA the circumstances relating to the importation of lower assurance sheep will be thoroughly investigated. Flocks will be expected to adhere to the nationally agreed guidelines for the entry of sheep into an area with a recognised Regional Biosecurity Plan. The acquisition property and all of the sheep on it will most likely be subject to quarantine and movement restrictions. Testing of the imported sheep will be undertaken as soon as is practical. A Property Disease Management Plan will be created.

b) **Low-Risk Sheep Introduced:**

In SA low-risk sheep introductions would be initially assessed as with high-risk introduced sheep. However, it is unlikely that quarantine measures will be adopted. A softer investigative approach is likely to be adopted.

4.6 **Tests and Assessments Currently Available and Their Uses**

- i) SA intends to continue with abattoir monitoring at the two Thomas Foods International Abattoir sites, Lobethal and Murray Bridge, in SA.
- ii) Pooled Faecal Culture

iii) Pooled Faecal HT-J (direct PCR) is used as a screening test. Positive results are to go to culture to confirm results. This is a South Australian initiative.

iii) Serial Faecal Culture and individual animal AGID Serology (provided the animal has not been vaccinated with Gudair) - is used when there has been a small number of animals involved.

iv) The National Sheep Health Statements (SHS) must be used for all sheep movements within SA, as well as movements into SA. The information on SHS is checked with the sheep producer, if any anomalies are apparent.

v) On-property management risk assessments are made with emphasis on farm biosecurity, attention to possible disease incursions via OJD-contaminated waterways and access to OJD-contaminated pastures e.g. drain reserves and stock routes. Other factors such as the informal quarantining of introduced livestock will become part of an assessment of the risk of the introduced sheep pose to the remainder of the importer's flock.

4.7 **Components of Property Disease Management Plan (PDMP)**

In SA all OJD infected properties undertake a Property Disease Management Plan (PDMP) or a Property Disease Eradication Plan (PDEP). Examples of PDMP and PDEP templates for SA OJD infected flocks are below.

Property Disease Management Plan:



Government of South Australia
Biosecurity SA

PROPERTY DISEASE MANAGEMENT PLAN- VACCINATION

Infected/Suspect Properties in South Australia

SURNAME:

GIVEN NAMES:

TRADING NAME:

ADDRESS:

Telephone No:

Fax No.

Property Identification Code (PIC):

Property Location:

Land Description:

LAND DETAILS:

Hundred	Title Reference		Section Number	Land Parcel Details		
	CT/CL/ CR	Number		Plan Type	Plan Number	Allotment Number

Background:

FLOCK DETAILS (as of xxxxxxxx):

Mob Type	Age (yrs)	Sex	Breed	Number
			Total	

OTHER LIVESTOCK DETAILS:

Species	Approximate number
CATTLE	
GOATS	
DEER	
PIGS	
CAMELIDS	
HORSES	
OTHER (specify)	

FENCING (brief description of condition and structure):

STRAYING HISTORY IN LAST TWO YEARS:

NEIGHBOURS:

Name	OJD Status	Type of eligible species

FERAL ANIMALS OR WILDLIFE:

CLINICAL SIGNS OF OJD:

MANAGEMENT PLAN

STRATEGY AND RULES FOR USE OF GUDAIR VACCINE IN PDMP-V

Vaccination of all sheep to be retained on the property for more than 12 months will occur in the first year.

Vaccination of all replacement sheep must be undertaken at the time they arrive on the property unless they have been previously vaccinated for OJD. *Note that “Approved Vaccinates” are animals vaccinated prior to 16 weeks of age or older animals that have been vaccinated and tested negative by Pooled Faecal Culture within 12 months.*

Vaccination will be undertaken by a trained vaccinator who must have received specific training and be approved by the Chief Inspector of Stock.

Vaccinated sheep that qualify as **Approved Vaccinates** must be identified by an ear tag stamped with the Property Identification Code (PIC) and the letter “V” at the time of vaccination.

Subject to availability of funds and compliance with the provisions of the PDMP-V, the SA OJD Program will meet 100% of the costs of supply of the vaccine for all sheep to be retained on the property at the initial vaccination and for replacement sheep for 5 years after date in which the owner signs this PDMP-V, or until the removal of the Order, whichever occurs first.

The supervising Inspector may undertake audit inspections at any reasonable time, with reasonable notice, to ensure compliance with provisions of this disease management program.

PROGRESSION OF OJD FLOCK STATUS

PIRSA utilises Standard Definitions Rules and Guidelines for the management of Ovine Johne’s Disease in Sheep and Goats to support the Ovine Johne’s Disease Management Plan 2013-2018 (April 2013). Rule 4.1 of this document states that: “Flocks that are infected with OJD are no longer considered to be infected when:

1. The whole flock consists of Approved Vaccinates and has undertaken a PFC 350 test with negative results, at a minimum of 2 years after the last known detected infected animal has been removed; or
2. A destocking/decontamination program approved by the Chief Veterinary Officer has been completed.”

A suggested pathway for the _____ flock is Pathway 1 which involves the following:

- infected flock profiling,
- vaccination,
- other appropriate disease control strategies, and
- PFC testing of the flock after all sheep on the property are regarded as “approved vaccinates”.

An Infected Flock Profile (IFP) is the outcome of the epidemiological investigation of an infected flock in which a profile of the way the infection is distributed throughout the flock is developed.

The proposed methodology consists of the following components. These are:

1. Initial Profiling
2. Vaccinating
3. Exit Testing

A summary of the possible progression of OJD Flock status:

- [Date]~ Initial positive PFC test – Infected.
- Any sheep showing signs of wasting should be culled as soon as practical. These animals may have OJD and if so may be shedding very high levels of the organism in their faeces, contaminating the environment. Culling of thin sheep will not remove all shedders but will remove the worse cases.
- [Date]~ All eligible animals vaccinated with Gudair vaccine.
- All lambs that are likely to be kept for breeding to be vaccinated prior to 16 weeks of age. Alternatively, any ewes or ewe lambs that are purchased should be APPROVED VACCINATES at the time of purchase.
- Clearance testing can occur 2 years after the entire flock consists of **approved vaccinates**.

The possible time for removal of the Order will depend on the length of time that the breeding ewes (when disease was initially detected) remain in the flock. Each increase in the age that these animals are cast for age will result in a corresponding delay in the date that testing and Order removal can occur. Additionally, if approved vaccinate replacement sheep are not sourced, this will invariably delay the exit testing date.

DISCLAIMER

This Property Disease Management Program has been developed with consultation between Primary Industries and Resources SA (PIRSA) and **{Name}** in the context of current

Property Disease Eradication Program:



Government of South Australia

Biosecurity SA

OVINE JOHNE'S DISEASE (OJD) PROPERTY DISEASE ERADICATION PLAN

OWNER NAME:

ADDRESS:

PROPERTY LOCATION:

MAP OF PROPERTY:

(Attach map)

Clearly show boundary fences, internal fencing, water flows which could potentially allow exit of contaminated faeces or water, location of yards and parts of the property not used for grazing sheep. Indicate location of all neighbours.

Comments:

LIVESTOCK INVENTORY:

Type	Number
Ewes	
Rams	
Wethers	
Lambs	

No financial assistance is paid to sheep producers that undertake a destocking program.

BACKGROUND:

Detail OJD history and results of testing. State the most probable source of infection.

DESTOCKING STRATEGY – See below for an example

December 2014

Remove all sheep from sections Hundred by December 1 2014 by selling only direct for slaughter under Official Permit. However, unsaleable lambs may be held over for fattening beyond 1 December 2014 until they have reached a maximum of 12 months of age.

February 2015

Paddock inspection to ensure all sheep have been removed from the property.

Signed _____
Chief Inspector of Stock

_____ Date

4.8 **Strategy for Dealing with Suspect and Confirmed Infection including High Risk Neighbours**

In SA all suspected OJD detections are investigated as part of the SA OJD Control Program. These investigations may include positive abattoir detections, trace forward and trace back from confirmed OJD infected properties or private veterinarian diagnostics. Investigations involve on-farm faecal testing for confirmation of OJD infection and to quantify the extent of infection. If OJD infection is confirmed, the property will be under order restrictions.

This restricts the spread of the disease to other properties via sales of infected animals. Sheep from infected properties can only be sold direct to slaughter.

In consultation with Animal Health staff, owners of infected or suspect flocks develop a Property Disease Management Plan (PDMP) or a Property Disease Eradication Plan (PDEP). Both plans document the proposed steps to be undertaken to control the disease.

The PDMP includes identification of high- and low-risk mobs, flock and pasture management and accelerated culling of infected mobs of sheep and their immediate progeny. To also aid in the control of the disease and prevent the spread of it to in-contact properties, subsidising Gudair vaccine is offered.

The PDEP involves voluntary destocking for a period covering two consecutive summers. Both these plans aim to reduce clinical impacts, progression towards eradication and prevention of spread to neighbours and trading partners.

Neighbouring properties and those that share facilities, waterways and flood zones to an infected or suspected OJD property are notified of the confirmed infection. They then are required to undergo faecal testing to ensure the disease has not spread locally via strays and water movements. These properties are classified as at-risk and recommended to form a PDMP 'at-risk'. They are also recommended to check boundary fences, review straying history and vaccinate. These properties are also eligible for subsidised vaccine.

Non infected properties are also encouraged to engage in good biosecurity practices when they bring sheep onto their properties. This risk can be quantified by producers inspecting sheep health statements (SHS) when purchasing sheep. The risk can also be mitigated by buying sheep from MAP producers and/or otherwise vaccinated flocks.

Compliance with the program is monitored by inspecting sheep at saleyards and expiating non-compliant producers and livestock agents.

4.9 **Dispute Resolution Procedures**

In SA a number of regional committees have been created in order to deal with any anxiety and stigma that may arise from the detection of OJD. These committees have consisted of a mix of sheep producers and PIRSA staff and have been chaired by a sheep producer. Regional groups have been located in the South East, Kangaroo Island and in the Mid North. In addition, there is a state group the SA OJD Committee which acts as a technical advisory body to the SA Sheep Advisory Group. The SA OJD Committee has a membership of sheep producers; a representative from Rural Veterinary Practitioners; a representative from the livestock agents and PIRSA personnel from the various regions.

4.10 **Surveillance Activities**

Using the regional statistics of sheep registered enterprises; the following regional OJD prevalence has been calculated.

Region	Central	Mid North	Eyre Pen.	KI	Lower SE
	0.2%	0.1%	0	3.9%	0.9%
Region	Mid SE	Upper SE	Mallee	Pastoral	Yorke Pen.
	0.9%	0.8%	0	0	0

As can be seen from the above table, the mainland of SA comfortably meets the national goal for attaining low prevalence of OJD, i.e. the area has a 95% confidence limit for a true prevalence of about 1% or less.

The SA OJD Control program has an on-going commitment to the abattoir monitoring of sheep for OJD. From the last quarterly report from the beginning of April to the end of June 2015, shows there were 633 separate PIC lines inspected through SA abattoirs. An Animal Health Officer located at Murray Bridge obtains abattoir monitoring reports on a weekly basis.

The SA OJD Control program also relies upon the notification by private veterinarians of any properties that conduct any investigations of 'skinny' sheep with a suspicion of OJD.

4.11 **Monitoring and Evaluating the RBP**

The SA OJD Control Program is reviewed periodically during the course of the financial year. Although the emphasis is on financial management of the program, attention is devoted to the level of disease being detected, investigation of lower assurance imported sheep and being abreast of any significant research and development relating to OJD.

At the end of 2014 and the commencement of 2015, Dr Ron Glanville was engaged to review the SA OJD Control Program. His report was strongly supportive of the existing program. However, the report did suggest a number of minor modifications to the program. These are being currently implemented.

The Regional Biosecurity Plan audit will be tabled for examination and review by the Sheep Advisory Group (SASAG) annually.

4.12 **Reporting**

Outcomes of the annual audit will be sent to the SA CVO and the other Regional Biosecurity Areas.