



ALPACA MAP

RULES AND GUIDELINES OF THE
AUSTRALIAN
JOHNE'S DISEASE
MARKET ASSURANCE PROGRAM
FOR ALPACA

3RD EDITION, FEBRUARY 2005



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ACKNOWLEDGMENTS

The Australian Johne's Disease Market Assurance Program for Alpaca has been developed by representatives of the Australian Alpaca Association, the Australian Camelid Veterinary Association, the Animal Health Committee and Animal Health Australia.

Advice has also been received from the Commonwealth, State and Territory government animal health authorities. The document has been developed to be consistent with the CattleMAP.

The AlpacaMAP has been endorsed by Animal Health Committee and Animal Health Australia.

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1. INTRODUCTION

The Australian Johne's Disease Market Assurance Program for Alpaca (AlpacaMAP) is an integral part of the National Johne's Disease Program. It complements the Standard Definitions and Rules (SDRs) for bovine Johne's disease which deal with the regulatory control of Johne's Disease. In the absence of specific market assurance programs for other South American camelids, this program may also be used for these species run in alpaca herds.

The AlpacaMAP 1998 was developed in response to the need for a herd classification scheme to assure alpaca breeders and their clients that participating herds have been objectively assessed as having a low risk of being infected with Johne's disease. The Second Edition was developed in light of the changes made to the CattleMAP in 2000 and in response to improvements sought by the Australian Alpaca Association.

Unlike the CattleMAP the format of this handbook has not been changed as owners and veterinarians were familiar with the current format and confident that they could apply the program using this documentation.

The evidence is that the industry is in a favorable situation and that Johne's disease is rare in alpaca. While it appears that established alpaca herds themselves may have very little infection and present a low risk of spreading Johne's disease, they are considered susceptible to infection with at least the cattle types of *M paratuberculosis* and owners should take care not to compromise the situation.

Taking this into account, the Second Edition introduced some risk management procedures which gave participating herd owners more flexibility.

The further advance in this Third Edition of the AlpacaMAP is that the Australian Alpaca Association's new biosecurity program is included (see Appendix 12). *Q-Alpaca* herds can qualify for a status credit if they satisfy additional criteria (see section 4.5.2). This allows these herds to enter the AlpacaMAP at MN2 status and allows such herds that are already in the AlpacaMAP to advance one MAP status. AlpacaMAP herds can also maintain status by annual veterinary audit and being enrolled in and complying with *Q-Alpaca*.

WHO SHOULD CONSIDER ENTERING THE ALPACAMAP?

As herds in Free Zones are recognised as free, the program is not applicable to them. Although herds in Protected Zones are also considered at low risk, their status is only equivalent to the lowest assessed status (Monitored Negative 1) in this program. Therefore the program should be considered for herds in a Protected Zone where it is unlikely to be upgraded to a Free Zone in the near future if they wish to sell alpaca to assessed herds. Animal Health Australia also considers market assurance to be a core component of national Johne's disease control.

It is a voluntary scheme with the costs being borne by participating herd owners.

Alpaca have been shown to be infected with the cattle (bovine) form of Johne's disease. Bovine Johne's disease is epidemiologically different to Johne's disease in sheep. It is caused by a different strain of *M paratuberculosis*. Infection of alpaca or other camelids by the sheep (ovine) form of the disease cannot be ruled out and the presence of JD in sheep on a participating property will need to be considered in the development of an Owner/Approved Veterinarian Agreement. However, as JD in sheep is believed to be a different disease entity, action on the presence of Johne's disease in sheep will only follow if evidence of alpaca/sheep transmission is reported and accepted by the Veterinary Committee as requiring such action.

The program does not apply to infected herds. These herds are subject to regulatory control by the various States and Territories.

LEVELS OF ASSURANCE

The Program aims to identify, protect and promote herds that are at low risk of being infected with JD. It is based on a testing regime and on the adoption of property and management factors that minimise the risk of the introduction of Johne's disease into the herd. The assessment of these factors and the testing of stock is the responsibility of veterinarians who are trained and approved under the scheme.

The testing is not 100% sensitive and it does not guarantee that a herd is free of Johne's disease, but the higher the status a herd achieves the greater the assurance that it is not infected. Therefore it will be most attractive to herd owners who wish to assure clients that their alpaca have a low risk of being infected. It will also be attractive to producers wishing to sell breeding animals to Free and Protected Zones.

The status allocated to a herd assessed as negative is "Monitored Negative" (MN) which involves either a whole herd test or, in the case of large herds, a statistically determined sample. Depending on how long a herd has participated in the program and therefore the number of times testing has been undertaken, it is allocated MN1, MN2 or MN3 status.

Assurance Level	How achieved	Relative merit
Monitored Negative 3 (MN3)	3 negative tests of herd over at least 3-4 years plus herd management plan	Highest assessed JD assurance level, equivalent to a herd in a Free Zone.
Monitored Negative 2 (MN2)	2 negative tests of herd over at least 1-2 years plus herd management plan	High JD assurance level
Monitored Negative 1 (MN1)	1 negative test of herd and a herd management plan in place	Moderate assurance level, equivalent to the status of herds in a Protected Zone
Check Tested	Negative test of 50 adults in a herd with no history of infection; but NO herd management requirements	NOT an AlpacaMAP status. Low introductory level of assurance, to support vendor declarations.

Unlike cattle herds in BJD Protected Zones, Non Assessed camelid herds do not have a status equivalent to MN1 unless the Protected Zone has established a Protected status for camelid species to the satisfaction of Veterinary Committee. (This is consistent with the fact that alpaca/llama from Non Assessed herds are permitted to move between zones without restriction, except for movement into Free Zones, and Protected Zones which have established a Protected status for those species to the satisfaction of Veterinary Committee.)

Herds that are registered in the Australian Alpaca Association's Q-Alpaca scheme may also qualify to be considered equivalent to MN1 if they satisfy additional requirements (see section 4.5.2).

In the case of large herds, not all animals in the herd have to be tested. However, the MAP does require the testing of sufficient animals to provide a high level of assurance that alpaca from a MAP assessed herd have a low risk of being infected with Johne's disease. Sampling and testing in large herds is undertaken to give at least 95% confidence of detecting infection if the disease is present in 2% of alpaca in the sampled herd.

Provided management factors preventing the introduction of disease are implemented, the more testing that occurs over time, the greater the level of confidence that a herd is not infected. In addition, any alpaca which show signs suggestive of Johne's disease must be investigated by faecal culture. Animals that die have to be examined by post-mortem with the required specimens submitted to a laboratory to exclude Johne's disease.

As no serological tests are approved for alpaca at this stage, faecal culture is the test used for herd testing. In some cases test cultures may be overgrown by other faecal bacteria or fungi and hence a test result is not achieved. It will be necessary to resample an animal if its culture is so contaminated.

The program requires high levels of herd management from those herd managers who elect to participate. On-farm requirements relating to the introduction of animals, husbandry and record keeping apply and are critical to the success of the program. It is particularly critical that alpaca managers with a high level of alpaca movement participate in the program and strictly conform to husbandry and record keeping requirements. The owner will develop a written Herd Management Plan with his or her approved veterinarian.

To provide national and international market confidence in the program, all aspects of the program will be regularly audited. This will ensure that MN herds are recognised nationally and that the investment of individual owners is protected. It is envisaged that participants will be charged fees to cover some of the administrative and auditing costs associated with the program.

THE PLACE OF ALPACAMAP IN JOHNE'S CONTROL

Industry ownership and commitment to this program are essential for its success. Stakeholders in the program will undertake annual reviews to monitor progress, consider technical advances and endorse any changes necessary to improve the program.

The MAP is an essential component of disease control and eradication programs which operate in some States. The role of the MAP in these programs is:

1. To provide a source of low risk alpaca for those uninfected herds who want to avoid introducing infection.
2. To facilitate the movement of low risk alpaca between States.
3. To allow herds in high prevalence areas of bovine Johne's disease to demonstrate their status so that they can sell alpaca.
4. To maintain a reservoir of low risk alpaca by the use of management strategies that minimise the risk of introducing disease into MAP herds.
5. To reduce the risk of Johne's disease being spread at shows and sales.

This document details the operational aspects of the program. It should be read in conjunction with the current Standard Definitions and Rules for bovine Johne's disease. The various forms used in the MAP, apart from the Herd Status Certificate (Appendix 3) should be photocopies of those in the appendices to this document.

2. DEFINITIONS

2.1 ELIGIBLE SPECIES

This program is primarily intended for alpaca, however cattle, goats, deer and other camelids may become infected with the cattle strain of the disease. This means that, where these species are run together or on the same land as alpaca, they must be of equivalent status under a Market Assurance Program for their own species. A herd in which other South American camelids are run with alpaca may achieve an assessed status by including these animals in the testing and management programs.

2.2 HERD

A herd in the program is a group of all alpaca and/or other eligible species which have grazed the same land at any time during a 12-month period and/or which have shared the same facilities such as yards or a shearing shed.

NOTE: To enter the program, a herd need not have been established for 12 months but it must comply with Section 4.6 Establishment of a new herd.

Use of the term “alpaca” in these rules and guidelines includes other eligible species. Agisted animals are part of the “herd” regardless of ownership.

A herd may be run on more than one separate blocks of land, however the movement of eligible animals between these blocks must be undertaken so as not to compromise the herd status (see Appendix 7) and the details of the land and of the movement management will be included in the Herd Management Plan (See section 5.4).

2.3 APPROVED TEST

An approved test is one approved by the Sub-Committee on Animal Health Laboratory Standards (SCAHLs) on behalf of Veterinary Committee. These may include faecal and tissue culture, histopathological examinations and molecular biological methods such as polymerase chain reaction (PCR) and other DNA analyses. A serological test has not yet been approved for alpaca.

2.4 TESTED POSITIVE ANIMAL

A tested positive animal is one which is tested positive on faecal culture, and in which the identification of the isolate is confirmed as *M paratuberculosis* by specific PCR or another approved test.

2.5 HISTOPATHOLOGICAL EXAMINATION

An examination of a range of tissues in accordance with the Australian and New Zealand Standard Diagnostic Procedures (ANZSDP) for Johne's disease or as determined by the SCAHLs in the meantime using procedures recommended and documented by the SCAHLs. Appendix 10 lists the specimens to be submitted.

PCR analysis of preserved tissues may be undertaken to confirm the presence and type of *M paratuberculosis*.

2.6 INFECTED ANIMAL

An animal which has had Johne's disease confirmed by
– isolation of *M paratuberculosis* in faecal culture or tissue culture, or

- histopathology*, or
- any other examination approved for this purpose by the SCAHLS.

* *Note: As other mycobacterial infections may result in similar pathology and histopathological changes to Johne's disease in alpaca, additional culture or DNA tests may be required to definitively rule in a diagnosis of Johne's disease where histopathology is positive.*

2.7 TESTING REGIMES

2.7.1 Sample Test

Testing of the whole herd or of a sample of a herd by faecal culture or another approved test with follow-up investigation of any tested positive animals if required by the CVO. In large herds, the alpaca to be tested are selected from the herd in accordance with Section 6.

2.7.2 Maintenance Test

A Maintenance Test is a biased test to maintain a herd's current status. It is undertaken on 50 adult animals selected to increase the probability of detecting infection in animals born and raised in the herd and in introduced stock. If there are fewer than 50 animals over 12 months of age in the herd all such animals will be included in the Maintenance Test.

2.7.3 Check Test

A Check Test is a test to provide a low level of assurance that a herd is not infected with Johne's disease (see Section 3.5). It may be used as a standard for interzone movements. Check Tested herds are not MAP assessed herds.

2.8 NEIGHBOURING PROPERTY

Any other landholding adjoining land on which an assessed herd is run.

2.9 BARRIER

A barrier is a physical separation approved by the relevant Chief Veterinary Officer (CVO) which minimises the risk of environmental spread of infection. Suitable barriers may include unstocked land, tree lots, contour banks and stone walls.

2.10 APPROVED VETERINARIAN

An APAV accredited veterinary surgeon who has undergone specific training as required by the program and has been authorised in writing by the CVO of the State/Territory to participate in the program.

2.11 APPROVED LABORATORY

A veterinary laboratory approved by the CVO of the State/Territory to carry out diagnostic tests for the MAP.

2.12 APPROVED PROPERTY ERADICATION PROGRAM

An approved property eradication program as defined in the Standard Definitions and Rules for Johne's disease (SDRs) and undertaken to the satisfaction of the relevant CVO.

2.13 ANNUAL HERD ASSESSMENT

A review undertaken every 12 months by the approved veterinarian to ensure that the herd has met the management requirements of the program. If the level of monitoring for disease during the period since the last assessment is inadequate, a herd inspection with collection of faecal specimens from any suspect cases for laboratory examination is necessary.

2.14 HERD STATUS CERTIFICATE

This is a certificate in the form presented in Appendix 3. Blank certificates are supplied by State/Territory administration. They are completed and issued to the herd owner by the approved veterinarian. It describes the status of the herd following its most recent assessment and is valid for 12 months or until it is revoked.

2.15 LAND

An area of land including yards and other facilities on which the herd is run. The land may comprise separate blocks which are described in the Herd Management Plan.

2.16 CHIEF VETERINARY OFFICER (CVO)

The CVO is the senior government veterinarian of a State or Territory who is responsible for the administration of animal health legislation in that State or Territory and includes his /her delegate.

2.17 APPROVED AUDITOR

A person approved by the CVO to conduct audits of participants in the scheme (See Section 9).

2.18 CONTAMINATED LAND

Land that has been contaminated by the faeces of infected animals or herds but which has not been decontaminated in accordance with the Standard Definitions and Rules for Johne's Disease. (See Section 4.6)

2.19 MATING, QUARANTINE AND SHEARING AREAS

2.19.1 Mating area

An area of land described in the herd management plan that is used only for the purposes of supervised mating. This land will not otherwise be used by the herd. Any faecal contamination of the mating area is to be removed and disposed of in such a way that it does not contaminate other land used by the herd. (See Section 5.5)

2.19.2 Quarantine area

An area of land or a building in which animals visiting the herd for mating can be held in isolation from the herd (see also Section 5.5)

2.19.3 Shearing area

A designated areas used for shearing alpaca from herds of different status (see Section 5.5).

2.20 Standard Definitions and Rules

These are national standards endorsed by Veterinary Committee for the control of infection with bovine strains of M paratuberculosis in all eligible species.

3. DEFINITIONS OF HERD STATUS

3.1 INFECTED (IN)

An infected herd is defined in the current edition of the Standard Definitions and Rules for Cattle.

That is a herd in which, since 1 January 1991:

- an infected home-bred animal has been found, or
- an infected animal has been introduced, and there has been potential for transmission of infection within the herd or the potential for transmission cannot be ruled out, and all high risk animals cannot or have not been identified and isolated from the herd, or
- infection by sheep strains of *M paratuberculosis* has been identified and there is evidence of spread of such infection among cattle or other susceptible species in the herd, and;
- which has not been the subject of an approved property disease eradication program since the most recent detection of infection.

Restricted or Tested Low Prevalence herds that have progressed in officially endorsed control programs are also infected herds.

3.2 SUSPECT (SU)

A suspect herd is one defined as Suspect in the Standard Definitions and Rules for Cattle and includes herds where the CVO determines that there is sufficient epidemiological evidence to classify the herd as Suspect such as where:

- a herd has a history of infection since 1 January 1991, but more than 5 years ago, and has been subject to an *approved control program* to the satisfaction of the CVO; or
- a herd had its last confirmed case of JD prior to 1 January 1991 and has not been subject to, or has not satisfactorily complied with, an *approved control program*; or
- a herd containing susceptible animals has been grazed on contaminated land; or
- there is traceback or traceforward evidence of contact with an infected herd, or
- reactors have been detected in a herd or movement test but have not been investigated; or
- a herd contains animals with clinical signs consistent with Johne's disease that remain uninvestigated; or
- eradication of past infection has been attempted, but not under an approved property disease eradication program; or
- an infected animal has been introduced and the CVO is satisfied that there has been little or no potential for transmission of infection to the herd, or all exposed susceptible animals have been culled for slaughter; or
- a herd contains infected cattle or camelids in which sheep strains of *M paratuberculosis* have been identified, and there is no evidence of spread to other susceptible species in the herd or investigation of the herd is incomplete.

Suspect status can be resolved by the CVO obtaining evidence to remove the suspicion of infection from the herd. One or more herd tests may be a necessary component of the process to remove suspicion.

3.3 NON ASSESSED (NA)

A Non-Assessed herd is a herd defined as Non-Assessed in current edition of the Standard Definitions and Rules Cattle, that is a herd

- with no history of JD or where any suspicion of infection has been resolved to the satisfaction of the CVO; or
- in which the last confirmed case was prior to 1 January 1991 and has been the subject of an *official approved control program* to the satisfaction of the CVO;
- and which has not been assessed under an approved MAP for that species.

3.4 MONITORED NEGATIVE (MNN YYYY)

This is the status assigned to a herd that has undertaken a negative whole herd test or negative sample testing (in the case of large herds) as defined in Section 6 and which has implemented all of the other provisions of the AlpacaMAP to the satisfaction of the Approved Veterinarian.

- A MN1 herd has had a single negative whole herd or sample test.
- A MN2 herd has had a second negative sample test at least 22-26 months after the first negative test.
- A MN3 herd has had a third negative sample test at least 22-26 months after the second.

NOTE: Testing is scheduled within the time periods specified above since the previous test, and not when the certificate is dated to expire.

Alpaca herds in Protected Zones declared for alpaca and herds qualifying for a status credit under *Q-Alpaca* (see section 4.5.2) would have had one less test than outlined above.

A herd assigned a status in accordance with the AlpacaMAP may also be called an assessed herd.

Where a herd is run with another eligible species, the intervals between Sample Tests may be reduced to between 12 and 22 months for the purposes of aligning MAP status of the species.

As herd owners can elect to maintain status, the year in which the herd first attained the current status will be noted after the status, eg MN2 2000.

3.5 CHECK TESTED (CT) - FOR INFORMATION

The Check Tested level is not an assessed status in the AlpacaMAP as it has no mandatory management requirements (although all herds are encouraged to manage their risk of becoming infected). It is explained here because MN1 herds are now permitted to introduce animals from CT herds as described in Section 5.5.

The Check Tested category

- only applies to herds with no suspicion of infection.
- is based on negative testing of a biased sample of 50 adult animals that are most likely to be infected and react to the test (or of all animals 1 year and older in herds with less than 50 of that age). Refer 6.2.3.
- is current for 12 months from the date of testing
- only applies to animals in the herd at the time of the Check Test, to animals subsequently bred in that herd (“home-bred”) and to animals introduced with a valid Vendor Declaration as originating from a Check Tested herd.

3.6 Q-ALPACA - FOR INFORMATION

Q-Alpaca is the Australian Alpaca Association’s national animal health quality assurance program for alpaca herds. Herds registered in the *Q-Alpaca* program can qualify for a MAP status credit and be considered equivalent to MN1. An AlpacaMAP herd participating in *Q-Alpaca* may also qualify for a status credit (see section 4.5.2)

4. ALLOCATION OF HERD STATUS

The AlpacaMAP is designed to progress herds from NA or SU status through MN1 to MN3 status. As a herd proceeds through the program (see Appendix 1- Diagram of herd progression) there is a higher degree of confidence in disease freedom.

4.1 ALLOCATION OF INITIAL HERD STATUS

The initial status with which a herd enters the program shall be determined by the CVO, based on the previous history of the herd and land and other relevant epidemiological factors (see also 4.6).

4.2 PROGRESSION FROM NON ASSESSED STATUS TO MN1

A starting point of NA status will apply to most herds entering the program. NA herds progress to MN1 status following a satisfactory property appraisal, entering an agreement to undertake the herd management required and completing a negative test.

4.3 PROGRESSION FROM SUSPECT STATUS TO MN1

A herd classified as SU cannot progress to MN1 without the approval of the CVO. Before this can occur, the CVO must first be satisfied that the suspicion has been allayed. A negative whole herd or sample test may be one component of the process of allaying suspicion.

4.4 PROGRESSION FROM INFECTED STATUS

IN herds cannot enter the MAP unless they have first completed an approved property eradication program and the CVO has approved their progressing to MN1 status after a program of negative whole herd or sample tests.

4.5 ACCELERATED ENTRY INTO THE PROGRAM

4.5.1 State/Territory authorities can examine evidence of previous testing and management controls and, if equivalent to those described in this program, may approve accelerated entry of herds into the program. However, unlike cattle herds in BJD Protected Zones, Non Assessed camelid herds do not have a status equivalent to MN1 unless the Protected Zone has established a Protected status for camelid species to the satisfaction of Veterinary Committee.

4.5.2 A *Q-Alpaca* herd would qualify for a status credit if it:

- a) is not run with other susceptible animals, or
- b) is run with sheep with a minimum score of 2 in the Assurance Based Credit Scheme for OJD, or
- c) is run with animals that are classified as eligible animals in the AlpacaMAP and are part of a MAP herd or flock or any other herd or flock that would be eligible for unrestricted entry to aMAP herd or flock. (See section 5.5)

A herd in *Q-Alpaca* that also satisfies these conditions would be considered equivalent to MN1 for movement purposes (see sections 5.5 and 5.11)

A herd that is already in the AlpacaMAP and subsequently registers in *Q-Alpaca* and satisfies the above conditions will be eligible for an upgrade by one status (eg from MN2 to MN3).

4.6 ESTABLISHMENT OF A NEW HERD

Where a new herd is to be assembled from other herds, the owner must first satisfy the requirements of sections 5.1 to 5.5 before introducing the alpaca onto the land.

In other cases the herd shall be given the status of the contributing herd that has the lowest status defined by the AlpacaMAP.

A herd established on contaminated land cannot enter the program.

Where the identity of all herds contributing to the new herd is known and none of them are known to be infected or suspected to be infected, the new herd may proceed to enter the program immediately.

If the identity of any of the herds of origin cannot be determined, the herd cannot enter the program within 12 months of being established. Such a herd shall then be initially assigned NA status.

4.7 CHANGE OF MANAGER, LAND OR APPROVED VETERINARIAN

Where an assessed herd moves to new land or changes manager or approved veterinarian, the approved veterinarian must ensure that the herd continues to be managed to protect its assessed status. Particular attention must be paid to the status of land and neighbouring properties as required by sections 5.1 and 5.3.

Herds in which these changes occur must be notified to the State authority and shall be audited within 12 months, when the external audit of the program is undertaken.

4.8 PROGRESSION BEYOND MONITORED NEGATIVE 1 STATUS

To progress in the program, a herd must maintain the schedule of negative whole herd or sample testing and satisfactory annual herd assessments.

4.9 RENEWAL OF HERD STATUS CERTIFICATES

Herd status certificates must only be issued for a period of 12 months, with the expiry date being 12 months after the initial test results are received by the Approved Veterinarian. These certificates shall be renewed by the approved veterinarian following a satisfactory Annual Herd Assessment (See 2.13 & 7.2) and a negative test if due.

4.10 REVERSION OR DEMOTION TO A LOWER STATUS

NA status shall be applied to herds where there is a serious breach of any condition contained in the owner / approved veterinarian agreement.

In herds where the approved veterinarian suspects infection to exist, he or she shall change the herd status to SU and notify the CVO. The CVO may reinstate the previous status of a SU herd if it is determined that the suspicion is not sustained.

Where animals are introduced from a herd of lower status, or return to the herd having lost their status, other than under the conditions for mating as prescribed under section 5.5, the whole herd shall revert to that status. Failure to provide documentation to verify the status of introduced alpaca shall result in the herd status reverting to NA (or lower) from the time of introduction of such alpaca.

If an assessed herd loses its current status (eg MN1) by introducing eligible animals from a herd of a lower status (eg NA) other than as allowed under section 5.5, the herd will be allowed to test 12 months after the introduction to regain an assessed status (in this case, MN1).

4.11 LAPSED TESTING

A herd cannot maintain its MN status beyond the prescribed test and herd assessment intervals.

A herd with status MN1, MN2 or MN3 that does not complete its next sample test within 2 months of it being due shall revert to the next lowest status (ie SU, NA, MN1 or MN2). The approved veterinarian shall issue a new herd status certificate which will be valid for 12 months.

In these circumstances, reversion to MN1 or MN2 must only occur if the approved veterinarian is satisfied that all of the other requirements of the program have been met. Even though a sample test has not been done, a satisfactory annual herd assessment must be completed before a new herd status certificate is issued. In the absence of this assessment, the herd reverts to NA.

A herd that has lapsed to MN1 or MN2 status must not progress to MN2 or MN3 unless it undergoes negative testing and has complied with all other requirements of the program.

4.12 EXTENDED STATUS

Due to exceptional circumstances, or if repeated testing is required if faecal cultures are contaminated, some herds

will be unable to complete their next test within the required time. In such circumstances, the CVO may extend the existing status of the herd for a maximum of 12 months from the expiry date, provided that the herd continues to comply with all of the other requirements of the program.

A new herd status certificate shall be issued with the status noted as being "extended" (for example, Monitored Negative 1 - Extended). If the herd completes a negative test within this 12 month extension, it shall progress to the next status. If it doesn't, testing will be considered to have lapsed and the herd status shall revert as described in 4.11 above.

4.13 INFECTION FOUND IN AN ASSESSED HERD

If an infected alpaca is found either through a positive test, by routine investigation, or by an inspection at the time of an annual herd assessment, the status of that herd shall become IN and it cannot participate in the market assurance program any longer until such time as an official test and control program has been completed to the satisfaction of the Chief Veterinary Officer.

4.14 ANIMALS TRACED FROM AN INFECTED PROPERTY

It is possible that alpaca in a MN herd may have been introduced from a property that is subsequently found to be Infected or that alpaca moved from an assessed herd may be found to be infected on another property.

The appropriate action will be determined by the CVO depending on the circumstances. Where he or she considers there is sufficient risk attached to this movement to warrant further investigation, this will be done collaboratively and as a matter of priority by the approved veterinarian and a government veterinarian .

The following procedure should be undertaken for assessed herds:

- the owner of the herd is advised of the trace as soon as possible and the advice is confirmed in writing;
- the owner may continue to move or sell animals with full disclosure to prospective purchasers and other interested parties; and
- where there is sufficient risk of infection, the CVO may assign Suspect (SU) status to the herd.

4.15 MAINTAINING HERD STATUS

To maintain MN1 or MN2 status, the herd must undertake an annual veterinary audit, AND either remain enrolled in and comply with Q-Alpaca or undertake a Maintenance Test every 22 to 26 months after the previous Sample Test or Maintenance Test.

To maintain MN3 status, MN3 herds shall undertake an annual veterinary audit, AND either either remain enrolled in and comply with Q-Alpaca or undertake a Maintenance Test every 34-38 months.

5. **PROPERTY AND MANAGEMENT REQUIREMENTS**

Management of the property and herd are essential components of the AlpacaMAP. While testing provides a high level of assurance that infection is not present, the program also relies on management to prevent the introduction of disease.

5.1 **INITIAL PROPERTY AND MANAGEMENT APPRAISAL**

Guidelines for appraisal of property and herd management are outlined in Appendix 5. The herd owner is encouraged to facilitate the initial assessment by preparing the required information and documentation before the approved veterinarian visits the property for the assessment.

Where the approved veterinarian already has a good knowledge of the property and its management a full property inspection may not be required. The approved veterinarian must however, be satisfied that the integrity of the herd can be maintained by fences and that the risk of environmental spread of disease from adjoining land is addressed. If the potential for environmental spread of disease onto the property has not been considered before, an inspection shall be necessary.

In addition to herd and property factors, the approved veterinarian must be confident that the herd owner / manager is capable of implementing the management aspects of the program. These will be recorded in the written Herd Management Plan (See section 5.4).

5.2 **OWNER/APPROVED VETERINARIAN AGREEMENT (APPENDIX 2)**

The responsibilities of owners and approved veterinarians are outlined in Sections 9.1 and 9.2. These responsibilities are incorporated in a formal agreement between the herd owner and the approved veterinarian (Appendix 2). This must be signed by both parties before a herd can enter the program and after each annual assessment.

5.3 **NEIGHBOURING PROPERTIES**

Unlike many other diseases, Johne's disease has the potential to spread from an adjoining infected property without any direct movement of eligible species. While spread by this means is possible, the risk must be assessed and kept in perspective.

Owners of neighbouring herds of eligible species should be advised of an owner's intention to enrol in the AlpacaMAP. At this time they should also enquire about the Johne's disease status of the neighbouring property to assist the approved veterinarian assess the risk of infection from this source. They should also reach agreement about stray alpaca. Neighbours should be clearly advised not to return any alpaca which accidentally stray from the assessed herd without first contacting the owner. These alpaca should be collected and the approved veterinarian consulted before they are introduced back into the herd.

5.3.1 **Barriers**

To minimise the risk of environmental spread of infection, the type of barrier employed must be appropriate to the level of risk assessed by the approved veterinarian. Details of barriers must be described in the Herd Management Plan (See Section 5.4).

5.3.2 Action where neighbouring property is known to be infected

Provided adequate precautions are documented in the herd management plan and implemented a herd in the AlpacaMAP may exist beside another property known to be infected. Eligible animals in the MAP herd should not be exposed to any potentially infective run-off or straying eligible species from this property. The barrier employed may require an area on which eligible species are not grazed.

5.3.3 Neighbour notification

Where an owner is advised that a neighbouring herd of eligible species is infected, it must be immediately brought to the attention of the approved veterinarian. The approved veterinarian must be satisfied that an adequate barrier exists between the two herds.

5.4 HERD MANAGEMENT PLAN

This must be a written plan developed jointly between the owner and the approved veterinarian. It must identify risks for the introduction of disease into the herd and must outline a strategy to avoid or minimise these risks.

The plan must include details of any barriers adjacent to neighbouring herds of eligible species, the strategy to deal with strays, movement of assessed alpaca between non contiguous pieces of land, identify prescribed mating areas quarantine areas, shearing areas (where these are shared) and shall reiterate the requirements for introduction of alpaca into the herd. This document must be signed by both parties and a copy retained by each.

5.5 INTRODUCTION OF ALPACA INTO THE HERD

Bringing alpaca into the herd presents the greatest risk of introducing Johne's disease. Control over introductions is therefore an essential part of the program.

Alpaca may be introduced to an assessed herd:

- from Monitored Negative herds of the same or higher status
- from herds in a Free Zone that are not subject to restrictions for Johne's disease
- into a MN1 herd, from herds in a Protected Zone that are not subject to restrictions for Johne's disease (Herds in Protected Zones that have demonstrated the low risk status of their alpaca population to the satisfaction of Veterinary Committee are considered to have status equivalent to MN1 unless under restrictions for Johne's disease)
- into an MN1 herd, from a Q-Alpaca herd that satisfies the criteria to be considered equivalent to MN1 (see section 4.5)
- by the use of semen or embryos treated according to the standards of the International Embryo Transfer Society.

5.5.1 Small numbers of breeding animals

Each year, a small number of breeding animals (ie less than 10% of the number of breeders in the herd) shall be permitted to enter the herd from herds of one status lower as follows

- to an MN2 or MN3 herd, from a herd with a lower MN status,
- to an MN2 herd, from a Q-Alpaca herd with MN1-equivalence, and
- to an MN1 herd from a Check Tested herd or a Q-Alpaca herd that does not qualify for MN1-equivalence(see section 4.5),

with the prior approval of the approved veterinarian under the following conditions:

- introduced animals shall retain the status of herd of origin for subsequent sale or movement unless the herd of origin has reached the same assessed herd status, or until 4 years after introduction.

- The animals are tested negative by faecal culture within 90 days BEFORE entry and as follows:

All breeding animals introduced as above will be retested at the next veterinary audit or Sample or Maintenance test (in addition to the usual sample) whichever falls 12 months or more after the introduction.

If the animals under 12 months of age are introduced, they will be initially tested as above when they reach 12-18 months of age and then be tested in addition to the selected sample at subsequent sample or maintenance tests.

5.5.2 Short-term introductions for mating and shearing

Males or females may be brought onto properties with assessed herds for short periods from lower status herds or CT or NA herds for the purposes of supervised mating. These contacts must comply with the following conditions:

- a) from NA herds, a veterinary certificate that Johne's disease is not known or suspected to have occurred in the herd of origin (or evidence of status)
- b) from a CT herd, a veterinary certificate that the herd has been Check Tested with negative results;
- c) all mating will be managed in a mating area designated for that purpose (See Section 2.19)
- d) the introduced animal will not mix with the herd during its stay except for mating as prescribed in this section.

5.5.2.1 For "mobile mating" (that is, a short visit where the visiting animal does not stay for more than a few hours) the animal shall be unloaded into the mating area and directly removed from it.

5.5.2.2 For "overnight stays", the animal visiting from an assessed herd of lower status or from a CT or NA herd must be penned or housed away from the herd and in a designated quarantine area. The quarantine area must be alienated from the land on which the herd runs or must be able to be cleaned and decontaminated to a standard equivalent to show venues (See Appendix 8).

Animals may only move from an assessed herd to properties with a NA herd or lower status herds for mating where facilities are provide that comply with points c) and d) above. If animals from an assessed herd stay longer than for the actual mating they must be penned or housed according to the rules for movement to other places so as not to compromise their status (see Section 5.11 and Appendix 7)

An owner must retain sufficient documentation eg Declaration of Herd Status (Appendix 4), in order to verify the status of introduced alpaca to the approved veterinarian or CVO. Section 4.10 outlines action where alpaca of lower status are introduced into the herd.

5.5.2.3 For shearing, animals may be shorn in a designated shearing area or facility. They are not to be held in pens or yards with lower status animals. Pens or yards must be able to be cleaned and decontaminated to a standard equivalent to show venues (see Appendix 8).

Where animals from several herds are assembled for shearing over a short period, animals of different status must be segregated and animals from the higher status herds shorn and removed first.

*NOTE: Care should be taken when using sheep shearing sheds to reduce the risk of exposure to sheep strains of *M paratuberculosis**

5.6 STRAYING ALPACA

While it is recognised that it may be difficult to prevent some alpaca from straying, it is a high priority of management to minimise it. Herd status may be compromised if an alpaca mixes with other eligible species or strays onto a contaminated property or one for which the status is not clear.

Alpaca which stray from an assessed herd should be isolated from the herd until any possible contact with other eligible species has been determined. Depending on the contact that the straying alpaca has had with other land and eligible animals it may be necessary to remove the animal from the herd permanently. Strays may be returned to the herd only with the prior approval by the approved veterinarian.

Where eligible animals stray onto land used by the assessed herd, the disease status of the straying animals must be investigated by the approved veterinarian to determine the risk presented to the assessed herd.

5.7 ONGOING SURVEILLANCE FOR DISEASE

An investigation that excludes JD as the cause of illness in alpaca showing typical clinical signs provides additional evidence that the herd is not infected. These investigations also have the advantage of providing other valuable information about the general health status of the herd.

The owner agreement requires continual surveillance of the herd to identify alpaca with typical signs of Johne's disease. Alpaca showing such signs must be investigated by the approved veterinarian. Alpaca dying with such signs must be examined at post mortem with samples sent to the laboratory to eliminate JD as the cause as prescribed in section 7.

As part of the ongoing monitoring of alpaca for evidence of ovine Johne's disease, where Johne's disease is confirmed in a herd, the CVO may require investigations to be undertaken to determine if animals are infected with the sheep strain.

5.8 ANNUAL HERD ASSESSMENT

A review undertaken every year by the approved veterinarian to ensure that the herd has met the property and management requirements of the program. It shall also involve checking that the owner has kept adequate and accurate records over the last 12 months (see 5.9). Appendix 5 and Section 9.1- Responsibilities of herd owners, provide a basis for this assessment.

5.9 RECORD KEEPING AND AUDITING

For herds to maintain their status, and for the AlpacaMAP to maintain its reputation, a sample of herds will be audited each year by an approved auditor. Herd owners must keep accurate records such as:-

- the identities and the numbers of eligible animals in the herd
- Herd Movement Records and Travelling Animal Passports recording the movements of all eligible animals (see Section 5.13 and Appendix 11), including animals for mating, onto and off the property, particularly written details of their status (see Section 5.5, 5.10 , 5.11, 5.12 & Appendices 7 & 8)
- records of suspect clinical cases found including date, number and action taken to investigate (see Section 5.7 & Section 7)
- maintaining records of when whole herd and other tests were done, including follow-up investigation of tested positive animals
- stock movements off the property
- details of boundary fence inspections / repairs
- records of strays including date found and origin (see Section 5.6).

5.10 SHOWS

Before alpaca from assessed herds attend any show, the owner should investigate the housing and hygiene standards. The owners and the approved veterinarian must then decide whether these standards are adequate to allow alpaca attending the show to return to the assessed herd or to any other assessed herd. Shows, stud sales and exhibitions complying with the Guidelines (Appendix 8) shall be considered suitable for alpaca to return or move to assessed herds without affecting the herd status.

Show societies and owners of assessed herds are strongly encouraged to inspect show and sale facilities well in advance of any event to check that they comply with the guidelines and ensure that appropriate changes can be made to assure exhibitors that their herd status will not be compromised.

5.11 MOVEMENT TO OTHER LAND

The status of alpaca from an assessed herd may be compromised if they move to land of lower status, including a newly purchased property or are run with other eligible animals of lower status

To maintain an assessed herd status, alpaca must not be returned to the herd from other land or premises unless they have been managed in compliance with Appendix 7, Movement of Alpaca from Assessed Herds to Other Places.

Agisted alpaca are part of the herd on the land on which they are agisted.

Animals may move to other land for the purposes of agistment, etc, and retain their status under the MAP if the following conditions are satisfied:

- prior to being dispatched to lease or agistment country, a risk assessment of the lease / agistment country must be conducted.
- for any alpaca from any assessed herds
 - land that has not been stocked with eligible species during the past 12 months, or
 - land in a Free Zone that has not been occupied by any eligible species of a herd that is infected or suspected of being infected during the previous 12 months, or
 - land on which a MAP assessed herd of eligible species of the same or higher status is run.
- for any alpaca from a MN1 herd
 - land in a Protected zone and has not been occupied by any eligible species of a herd that is infected or suspected of being infected during the previous 12 months.
 - land that has been stocked for the past 12 months by animals from a Q-Alpaca herd with MN1-equivalence.

5.12 INTRODUCTION OF YOUNG CATTLE FOR SHORT-TERM REARING OR FINISHING

Short term introductions of young cattle to MN1, MN2 and MN3 herds from MAP assessed cattle herds of lower status and from herds in a Protected zone that are not suspected of being infected and to MN1 and MN2 herds from Check Tested cattle herds are permitted provided the approved veterinarian gives prior approval and they are less than 2 years of age. These animals must leave the land:

- before calving, or
- before reaching two years of age, or
- in the absence of reliable age records, before eruption of any permanent incisor teeth, whichever occurs first.

Alpaca under 12 months of age in the assessed herd must not graze the land grazed by these introductions for at least 3 months after their removal.

Short term introductions may use common handling yards but separate holding yards must be provided and used for them.

5.13 MOVEMENT RECORD FORMS

Two types of recording forms must be maintained by owners of assessed herds:

- Record of Animal Movements
- Travelling Animal Passports for animals that move away and return to the herd as shown in Appendix 11.

6. TESTING OF HERDS

6.1 ANIMAL IDENTIFICATION

All alpaca must be individually identified to the satisfaction of the approved veterinarian. Identification shall be by numbered eartag (eg., IAR tag), electronic implant, or other method approved by the Chief Veterinary Officer.

6.2 HERD TESTS

6.2.1 Sample test

A sample test consists of testing by faecal culture of all alpaca over 12 months of age in the herd or, in large herds, a sample of them as prescribed in Appendix 9. The sample to be tested shall be selected from all alpaca over 12 months of age in the herd on the day of the test irrespective of how long they have been in the herd.

Animals introduced under Section 5.5 will be added to the number of animals to be sampled.

Faeces will be collected in a way to prevent contamination of the samples by material from other animals or from the environment. Samples will be collected directly from the rectum using a clean glove for each sample.

No tested alpaca shall be disposed of until all test results are confirmed as negative or until authorised by the CVO. The alpaca which are tested should be run as a group separated from the rest of the herd until the results of tests are known. This makes it easier to ensure that none disappear and to locate and isolate any tested positive animals if necessary.

An animal that is to be retested (for instance when a culture is contaminated by other bacteria) must be presented as required or the herd status may lapse.

6.2.2 Maintenance Test

All animals 12 months old and older are to be considered for sampling. Where there are more than 50 animals in the sampling frame, only 50 animals will be selected for testing. These will be selected to maximise the probability of including animals most likely to be infected and most likely to react to the test. This includes animals in poor condition, older animals, and introduced animals, taking into consideration the herd status and zone/region from which introductions originate, other contact with potentially infected herds and any other relevant information.

A negative Maintenance Test for camelids will comprise testing the selected animals by faecal culture with negative results.

6.2.3 Check Test - FOR INFORMATION

All animals 1 year of age and over are to be considered in the sampling frame. Where there are more than 50 animals in the sampling frame, fifty (50) only animals will be selected for testing. Where there are less than 50, all animals 1-year and older will be tested.

The 50 animals will be selected so as to increase the herd level sensitivity of the Check Test by maximising the probability of including animals most likely to be infected and most likely to react to the test. This would include animals in poor condition, older animals, and introduced animals, taking into consideration the herd status and zone/region from which introductions originate, other contact with potentially infected herds and any other relevant information.

A negative Check Test for camelids will comprise testing the selected animals by faecal culture with negative results.

Where a Check Tested level is sought for different species of camelids running together as one herd of camelids, the Check Test will include proportional representation of the appropriate camelid species.

6.3 INVESTIGATION OF TESTED POSITIVE ANIMALS

Tested positive animals must be isolated in a secure area as soon as possible and the approved veterinarian must report the result to the CVO who will be responsible for future action in the herd. The CVO may require further investigation of any tested positive animals to determine their individual disease status.

A positive faecal culture indicates that the faecal sample tested contained a bacterium complying with the criteria for *M. paratuberculosis* in the Australian and New Zealand Standard Diagnostic Procedures (ANZSDP) for Johne's Disease. This indicates that the tested animal and the herd from which it derived is Infected with Johne's disease, and the herd immediately comes under the authority of the CVO who will determine what, if any, follow-up investigations are appropriate.

Pending the development of a standardised approach to investigation, CVOs will determine the appropriate investigations to be undertaken in live camelids when a positive faecal culture result occurs in groups of animals where there is no other reason to suspect infection.

6.3.1 Samples to be collected

The approved practitioner must be satisfied that an animal presented as a tested positive animal is the animal which tested positive. If the animal is to be slaughtered, the specimens listed in Appendix 10 must be collected from the animal and submitted to an approved laboratory so that a definitive result is obtained.

For a slaughtered animal, the approved veterinarian must examine the intestines and associated lymph nodes for any pathological changes. As well as the standard specimens listed in Appendix 10, any tissues with gross pathological changes consistent with JD must be submitted. A complete description of any gross pathology observed must be included on the specimen advice form.

6.4 TEST RESULTS

A negative whole herd or sample test occurs where testing of the herd or sample has been conducted with all tested animals found negative. Following a negative test the herd will normally progress to the next status. If faecal cultures are contaminated and another test is required of the individual animals for which a result is not available, the current status of the herd will be extended for the appropriate period.

The presence of a tested positive animal immediately changes the status of the herd to Infected (IN).

7. INVESTIGATION OF ALPACA WITH SUSPECT CLINICAL SIGNS

7.1 OWNER SURVEILLANCE

The owner agreement requires continual surveillance of the herd to identify alpaca with typical clinical signs of Johne's disease and subsequent post mortem investigation of animals which die to exclude JD as the cause.

The post mortem examination of alpaca which die with suspect clinical signs can be used to monitor a herd for the presence of Johne's disease. The use of this method to provide an ongoing assessment of the herd during the interval between sample tests is an important component of the MAP.

An alpaca over 9-12 months of age with progressive loss of body condition, with or without scouring and which is not responsive to drenching or other treatment, has signs typical of Johne's disease. There are many conditions other than Johne's disease which can cause these symptoms. Some of these include CLA, gastrointestinal parasitism, liver fluke infestation and intestinal adenocarcinoma.

7.2 SAMPLES REQUIRED FOR LABORATORY EXAMINATION

If animals die following clinical signs indicative of Johne's disease, the lesions are likely to be more advanced and therefore easier to detect than in clinically normal tested positive animals. A thorough examination of the intestine and associated lymph nodes is required. The specimens listed in Appendix 10 must be collected and submitted to an approved laboratory. Also, any tissues with gross pathological changes consistent with JD must be submitted.

Full details of the history and a complete description of any gross pathology observed must be included on the specimen advice form.

7.3 INVESTIGATION OF *M PARATUBERCULOSIS* STRAINS

Where Johne's disease is confirmed in a herd, the CVO may require typing of organisms to determine if a sheep strain of *M paratuberculosis* is implicated.

8. RESPONSIBILITIES OF PARTICIPANTS

8.1 RESPONSIBILITIES OF HERD OWNERS

The herd owner must:-

- retain an approved veterinarian at his or her expense
- present all sections of the herd for assessment and testing by that veterinarian
- permanently identify all animals in the herd over 12 months of age.
- provide the approved veterinarian with records of the origin and dispersal of all alpaca
- isolate all tested positive animals as soon as possible and, if required, submit them for further investigation,

The herd owner must:-

Implement the Herd Management Plan developed with the veterinarian, which includes:

- adoption of methods to minimise the risk of infection spreading into the herd
- introductions only from herds of the same or higher status, or via approved artificial insemination or embryo transfer procedures, or as permitted by section 5 of this document
- maintenance of boundary fences
- description and application of the identification method to be used
- continual surveillance of the herd to identify alpaca with typical symptoms of Johne's disease and submitting those with suspect clinical signs or that die to the approved veterinarian for investigation to exclude JD as the cause
- discussion with the veterinarian prior to taking any action which is at variance with the plan

The herd owner must:-

Agree to the following requirements:

- provide the results of all previous testing for Johne's disease in the herd and authorise the relevant State/Territory authority to disclose to the approved veterinarian any information relating to Johne's disease in the herd
- maintain documentary evidence that necessary tests have been satisfactorily completed
- provide access to all records to authorised persons for audit purposes
- permit notification of initial herd status and of changes in herd status as required by the program and publication of the herd's assessed status
- consult with the approved veterinarian prior to taking eligible animals to any shows
- not sell alpaca until the status of any tested positive animals or alpaca introduced from an infected herd is resolved
- return herd status certificate to the approved veterinarian if it is revoked
- notify the approved veterinarian if infection is found in animals now on other properties that have previously been part of the herd in another herd from which animals in the assessed herd are derived.

8.2 RESPONSIBILITIES OF APPROVED VETERINARIAN

On entering an Owner/Approved Veterinarian Agreement with that producer, an approved veterinarian must:-

- provide advice on the program and the actions necessary to achieve and maintain a particular status.
- in cooperation with the alpaca owner, develop a written plan to prevent the introduction of Johne's disease into the herd, including details on prescribed areas for mobile mating, overnight stays and shearing.
- collect all samples and submission with the required herd information to an approved laboratory as part of routine herd testing.
- collect appropriate samples from tested positive animals and for the interpretation of laboratory test results according to the requirements of this program.
- provide written advice of the outcome of all testing carried out.
- explain the clinical signs of the disease so that the owner can select suspect cases which die for post mortem examination.
- investigate suspect Johne's disease cases.
- conduct an annual herd assessment of management practices for compliance with the program, including a review of all records (particularly introductions) and a clinical herd assessment as required.
- receive CVO approval (based on a written submission) before progressing a herd from SU to MN1 status.
- maintain accurate records of all herd testing, animal examinations and laboratory results necessary to justify the status allocated to the herd.
- discuss movement of alpaca from the herd to specific shows and keep a record of details.
- issue Herd Status Certificates.
- liaise with State/Territory officials to obtain the JD history of herd as part of initial assessment of the herd.
- report to the State/Territory authority all movements both on and off the property in the event of an infected animal being found.
- report any change in herd status to the owner and to the State authority as per Appendix 6 within 7 days.
- implement any other requirement agreed with the State authority or owner.
- collaborate with a government veterinarian to investigate any suspect tracings to the herd.
- maintain all relevant records for at least 5 years.
- provide information to an authorised officer as required by the audit process.

8.3 RESPONSIBILITIES OF APPROVED LABORATORIES

An approved laboratory must:

- participate in the SCAHLS Quality Plan for Johne's disease.
- undertake faecal, serological and histopathological procedures in accordance with the ANZSDP (or as otherwise determined by the SCAHLS).
- report the results of all testing for Johne's disease to the submitting veterinarian and to the CVO of the State/Territory in which the herd is located.
- keep the records of all testing carried out for Johne's disease for at least 5 years.
- provide information to an authorised officer as required by the audit process.

8.4 RESPONSIBILITIES OF STATE/TERRITORY DEPARTMENTS

The State authority must:

- provide advice on the interpretation of these rules and guidelines and to oversee the implementation of the program within their jurisdiction;
- manage the training program for veterinarians and issue certificates of approval for them to participate in the program;
- approve veterinary diagnostic laboratories to undertake testing;
- set initial herd status;
- approve progression of herds from SU to MN1 status;
- provide standard Herd Status Certificates to approved veterinarians;
- manage a State register of herd status or provide data on assessed herds and their current status to Animal Health Australia for national collation and publication of lists of assessed herds;
- notify other States of tracing from herds found to be infected;
- with Animal Health Australia manage the defined audit procedures and report the results to the Veterinary Committee;
- resolve disagreements on herd status;
- annually review the operation of the program within the State with representatives of the alpaca industry and approved veterinarians and report to Veterinary Committee;
- provide advice on the eradication of the disease to owners of infected herds;
- provide information to an authorised officer as required by the audit process;
- state authorities have been advised of status renewal or progression.

8.5 ACTION WHERE PARTIES DO NOT MEET THEIR RESPONSIBILITIES

Refer to Section 9 Audit requirements

9. AUDIT REQUIREMENTS

NOTE: Management and Implementation of Audits is currently under review by Animal Health Australia

The AlpacaMAP is designed to be largely industry driven and managed, with the responsibility for the integrity of individual herd status lying with property owners and approved veterinarians.

In quality assurance programs where a third party relies on the integrity of the system when purchasing goods, the system must include an auditing component. Adoption of the AlpacaMAP will be driven by market pressures, ie. purchasers demanding assurance of the JD status of purchased stock. Purchasers therefore need to maintain confidence in the system for it to be successful.

Audits also provide participants in the MAP with confidence in the system by demonstrating that all players are meeting their obligations. They will also provide a mechanism for evaluating the AlpacaMAP and identifying elements that require improvement or modification.

The audits will target compliance with the program by herd owners, veterinarians, laboratories and State authorities. The basis for the audit system will be the herd audit which will verify the official herd status. Audits of other aspects of the system will also be carried out and additional elements may be audited as issues are identified by herd audits.

Audits will generally be done only on a proportion of herds in the program in any one year and the costs will be socialised across participants. However, where the circumstances in a herd require auditing, such as where the land, management or approved veterinarian changes, the cost will be borne by the herd owner.

9.1 AUDIT AT THE HERD LEVEL

Audits will involve detailed examination of procedures and documentation, including:

- checking the owner/veterinarian agreement
- comparison of testing records as supplied by the owner (or veterinarian) against herd status certificates
- checking herd status certificates against the Departmental record
- obtaining testing records from approved laboratories and checking these against the owner's records
- checking investigation of tested positive animals against property and laboratory records
- checking records of movements onto and off the property
- checking compliance with the management program as detailed in the owner/veterinarian agreement
- assessment of the level of advice given to the owner by the approved veterinarian

9.2 AUDITS OF APPROVED VETERINARIANS

Approved veterinarians who are actively participating in the AlpacaMAP will be audited to ensure that both they and herds under their supervision comply with the program.

The audit will include checks that:

- prescribed testing procedures have been undertaken, including the follow-up of tested positive animals
- prescribed time intervals have been observed
- herds have satisfied the criteria for the status assigned by the veterinarian
- the annual assessments have been completed.
- adequate herd records are kept
- adequate details are provided with laboratory submissions
- herd status changes are reported as required to State authorities.

9.3 AUDITS OF STATE AUTHORITIES

State authorities overseeing the AlpacaMAP will be audited to ensure that the herd status recorded officially correlate with those assigned by approved veterinarians.

9.4 MAINTENANCE OF LABORATORY STANDARDS

Performance of laboratories and tests is a critical part of the program. This will be monitored by SCAHLS through its JD Quality Plan and, where necessary, laboratories will be externally audited. Where a laboratory's performance is inadequate, the CVO will withdraw its approval to perform testing for the AlpacaMAP.

9.5 SAMPLING FOR AUDITS

Herds will be selected from the official data base to ensure that 10% of herds in each State (or a minimum of 5 herds per State) are audited annually. At least one herd that is supervised by each approved veterinarian actively participating in the scheme will be selected.

Where a herd owner changes the land, manager or approved veterinarian the herd will be subject to audit during the following twelve months at the herd owner's expense. Where a major defect (see below) involves actions of an approved veterinarian, further audits of herds administered by that veterinarian will be conducted.

9.6 NON-COMPLIANCE

Audits will be rated according to four categories, Conforms, Minor Defect, Major Defect and Critical Defect.

9.6.1 Minor Defect

A minor defect is any deviation from good practice, but one which does not jeopardise the integrity of the program. eg. minor inaccuracies or omissions in record keeping.

A minor defect should be discussed with the approved veterinarian and/or the herd owner and advice provided with a view to rectification or improvement of current practice. This should be checked for compliance within an appropriate time frame, but it must be within 6 months.

9.6.2 Major Defect

A major defect is one where there is a major deficiency in record keeping or practice, but which is not a deliberate attempt to compromise the integrity of the program. It is a defect which requires immediate rectification.

eg. major inaccuracies or omissions in record keeping
 failure to have an appropriate herd management plan in place
 unsatisfactory submission of samples for testing

A **major defect** will be immediately and fully reported to all parties involved. A request for corrective action must be issued by the auditor at the time of the audit, and the matter discussed with the approved veterinarian and/or herd owner to ensure that the non-conformity is understood. A deadline for rectification should be set and agreed.

A follow-up audit to check that the non-conformity has been rectified should be scheduled. This audit will be conducted on a full cost recovery basis.

Continued non-compliance will result in the owner and/or the approved veterinarian being excluded from the program. The approval or accreditation of the veterinarian for other official programs may also be suspended or cancelled.

9.6.3 Critical Defect

A critical defect is one which in the opinion of the auditor has the potential to very seriously compromise the market assurance program (or the veterinary accreditation scheme), including findings where there has been incompetence, malpractice, deceit or error resulting in, or with the potential to cause, breakdown of the program's integrity.

For example: -non disclosure of positive herd test results;
 -substitution of animals/samples;
 -introduction of animals from an infected herd;
 -failure to keep essential records;
 -false certification;
 -failure to investigate tested positive animals
 -failure to rectify previous major defect/s found at audit;
 -sale of alpaca as MN before a trace forward is investigated.

A **critical defect** will result in the owner and/or veterinarian being excluded from the program, and an appropriate herd status set. It may also result in the veterinarian losing approval to participate in the scheme, with notification to the Veterinary Surgeons Board. The status of other herds in the program may have to be re-assessed.

9.7 APPROVED AUDITORS AND COST OF AUDITING

Details of this aspect of the program are outlined in Appendix 10, Auditing the program.

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 1

HERD STATUS PROGRESSION AND MAINTENANCE

(Note: Herds may choose to maintain status by compliance with and registration under Q-Alpaca in lieu of maintenance testing)

AUSTRALIAN JOHNE’S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 2

AGREEMENT BETWEEN HERD OWNER/MANAGER AND APPROVED VETERINARIAN

This agreement must be renewed annually

PART A

HERD OWNER/MANAGER UNDERTAKING TO APPROVED VETERINARIAN

I,
of

being the owner / manager for the purposes of this program* of the alpaca herd run on the property described below, hereby apply to enroll the herd in the Australian Johne’s Disease Market Assurance Program for Alpaca.

Description of herd [Stud name, owner (if not listed above), including all agisted animals]
.....
.....

Property Name & Address:
.....
.....
.....

I also specifically undertake to comply with all conditions of the program and the laws of the State or Territory and that I shall:

1. Retain you as my veterinarian for this program until either of us revoke this agreement.
2. Provide the results of all previous examinations or tests for Johne's disease conducted on animals in the herd and I authorise the State Authority to provide you with information about the JD status of the herd and about previous testing undertaken in the herd.
3. Assist in the development of and then implement our agreed Herd Management Plan.
4. Present all alpaca over one year old for testing or inspection as required.
5. Permanently identify all alpaca in the herd.
6. If required, following further investigation, submit any tested positive animals for further investigation which will allow their true status to be determined and within an agreed period of time.
7. Not sell alpaca from the herd while the status of any suspect animal remains unresolved.
8. Advise you within 7 days of my becoming aware of any cases or suspect cases of Johne's disease
 - in this herd, or
 - in alpaca originating from this herd that are now located elsewhere, or

PART A *(continued)*

- in another herd from which contributed alpaca to this herd, or
 - in a neighbouring herd.
 - 9. Only introduce alpaca into the herd from herds of the same or higher status or as permitted in section 5.
 - 10. Only return alpaca attending shows and/or sales into the herd under pre-agreed conditions.
 - 11. Maintain records of the movements of any alpaca into and out of the herd, including the origin and destination of such alpaca and provide them to you on request.
 - 12. Maintain a record of all alpaca in the herd and the examinations and testing for Johne's disease that are carried out in the herd.
 - 13. Provide authorised people access to the property, herd and all relevant records for the purposes of auditing the program.
 - 14. Agree to your reporting changes in herd status or suspicion of infection in the herd to the appropriate State authority.
 - 15. Agree to the publication of the assessed status of my herd (ie MN1, MN2 or MN3).
 - 16. Agree to surrender to you any Herd Status Certificate if the herd status changes.
 - 17. In the event of my herd status becoming Infected or being suspected of being infected, I acknowledge that you and/or I have a legal responsibility to report this to the State authority and to provide information to the State authority to facilitate tracing and advice to owners of herds at risk of being infected.
 - 18. Advise you if the manager of the herd changes or prior to any change in the land on which the herd is run.
- * delete that which is not applicable.

I understand that if I fail to comply with any part of this Agreement, the status of my herd may revert to Non Assessed or Suspect status.

.....
.....

Signature of owner / manager
Date:

Signature of Approved Veterinarian
Date:

NOTE: For the purposes of the program, a herd includes all alpaca managed as a separate and discrete unit in terms of physical contact with other groups of eligible species. All alpaca and eligible species grazed together or at any time, during a 12-month period on the same land or sharing the same facilities are considered to belong to the same herd. The herd includes all agisted animals on the property regardless of owner. A newly established herd may proceed to enter the program if it complies with section 4.6

PART B

APPROVED VETERINARIAN'S UNDERTAKING TO HERD OWNER

I,
of

a veterinarian approved under the Australian Johne's Disease Market Assurance Program for Alpaca, hereby agree to comply with all conditions of the program and the laws of the State or Territory and specifically undertake that I shall:

1. Advise you on the program and on actions that you will need to undertake to comply with the program.
2. Develop with you a Herd Management Plan to reduce the risk of introduction of Johne's disease into the herd.
3. Collect and submit samples required to an approved laboratory.
4. Investigate suspected cases of Johne's disease in the herd or tested positive animals to tests by collecting the prescribed specimens from such alpaca for laboratory examination.
5. Provide you with a copy of the result of all tests and examinations undertaken for the purposes of this program in your herd.
6. Maintain detailed records of all examinations and testing which support and justify the herd status allocated from time to time.
7. Assess your herd records and management relevant to the program every 12 months.
8. Assess the risk to the herd and advise whether to attend individual shows or sales.
9. Determine the status of your herd under the program and issue you with appropriate Herd Status Certificates.
10. Advise (State authority) of any change in herd status within 7 days of suspicion of infection in the herd within the period prescribed by the animal disease laws of the State or Territory.
11. Advise (State authority) of any alpaca movements onto or off the property should infection be found in this herd.

.....
Signature of Approved Veterinarian

Date:

.....
Signature of owner/manager

Date:

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 3

Certificate No.

HERD STATUS CERTIFICATE

I certify that the Alpaca Herd
owned/managed by

.....

known as

.....

(Herd Name)

and run on the Property

.....

at

.....

has satisfied the testing criteria and continues to meet the management
standard required by the program.

A Herd Status of

.....

was assigned on

.....

(Date on which herd achieved this Status)

This status is valid until

.....

(Date when Certificate expires)

.....

Signature of Approved Veterinarian

.....

.....

Name and address of Approved Veterinarian

(Print)

.....

Date

This certificate will be withdrawn if there is evidence of disease on the property or if the herd owner does not comply
with the conditions of the Australian Johne's Disease Market Assurance Program for Alpaca.

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 4

DECLARATION OF HERD STATUS

See next page

VALIDITY CHECK :

FOR THIS DECLARATION TO BE VALID, PART A, PART E AND ONE ONLY OF PART B or C
MUST BE COMPLETED

PART A

I _____ of _____ am the owner/pers on with day to day responsibility for the husbandry of, the alpaca described below: .

(Name and location of property)

The alpaca have been kept at

This property is in a (tick applicable box):

Residual Control Protected Free Zone for BJD
Tas _{NSW, SA, VIC} _{NT, LD} _{WA} in alpaca

The property status for Bovine Johne's Disease is (tick applicable box):

Infected Suspect Not Assessed Other

Identification (Brands, ear tags, tattoos)	No. of alpaca	Earmarks	Description of alpaca (Age, sex, breed)

(Attach signed list if necessary)

The alpaca described above, either (tick applicable boxes):

A.1 were bred, raised and have only resided on the property detailed above; or

A.2 were purchased/introduced and have resided on the property above for at least four years; or

A.3 were purchased/introduced with a vendor declaration equivalent to:

Part B or Part C in this declaration.

NOTE: Making a false or misleading statement about the disease status of alpaca for sale may make the signatory liable to prosecution and/or civil action under the Trade Practices Act 1974 and relevant State legislation.

PART B

ALPACAMAP HERDS ONLY 1 (tick if applicable)

B.1 The alpaca herd has the following status in the AlpacaMAP:

MN1 MN2 MN3 (Insert year status obtained in the appropriate box)

Certificate No. _____ Expiry Date _____

Signed: _____

PART C

CHECK TEST HERDS 1 (tick if applicable)

C.1 I have no reason to suspect that Johne's disease is present in the herd of origin or on any land on which the herd has grazed. The property is not in quarantine or under movement restrictions on account of Johne's disease; **AND**

C.2 Within the last 12 months, all alpaca over 1 yo or at least 50 alpaca in the herd of origin being from the older age groups bred in the herd and/or introduced in the past 4 years, have been tested by a veterinarian approved by the State for JD Programs with negative results for Johne's disease.

Date of test:/...../.....

Previous negative tests (year) : 19..... 20.... 20....; **OR**

C.3 Herds tested to AlpacaMAP Standard: within the last 12 months,

a herd test equivalent to a Sample Test under AlpacaMAP has been conducted by _____

a veterinarian approved by the State for Johne's disease programs, with negative results for Johne's disease.

Date of test:/...../.....

Previous negative tests (year): 19.... 20.... 20....

Part E DECLARATION

I declare that **all** of the information I have provided in this form is true and correct.

Declared at _____ Date _____ Signed: _____

(NOTE: Stock agents cannot make this declaration on behalf of clients)

Part A**Completion of this part is required for the declaration to be valid**

Only the vendor or a person responsible for the husbandry of the alpaca may complete and sign this declaration.

If space is insufficient to identify all alpaca, attach a signed list.

Making a false or misleading statement about the disease status of alpaca for sale is an offence under the Trade Practices Act 1974 and relevant State legislation.

Non-assessed herd means no testing has been done on the herd to determine its JD infection status.

Part B AlpacaMAP herds Optional Completion if Applicable

Complete this part only if **all** alpaca described in Part A are from a herd enrolled in the Australian Alpaca Johnne's Disease Market Assurance Program (AlpacaMAP). The Herd status certificate number and date of expiry must be provided

The MN status of the herd must be indicated on the declaration, and the year in which this status was obtained must be inserted in the appropriate box.

The best assurance for purchasers concerned about Johnne's disease is provided by buying alpaca from herds which are participating in the AlpacaMAP. The higher the MN number, the better this assurance becomes.

Part C Check Tested herds Optional Completion if Applicable

C.2 The following is the approved method of herd testing to obtain a Check Tested status for Johnne's disease:

The herd assessment is to be conducted by a veterinarian approved by the state for JD programs and is valid for a period of 12 months from the date of the testing.

The assessment is only applicable to herds/properties where the owner/veterinarian has no reason to suspect that Johnne's disease is present.

All alpaca over 1 year old or at least 50 adult alpaca in the herd are to be selected for testing by faecal culture, following an inspection of the herd by the Approved Veterinarian. The alpaca tested must represent the older age groups bred in the herd, and alpaca introduced into the herd. Vendor declarations based on this assessment must only be provided for the sale of alpaca which:

- were born and reared on the property; or
- were purchased/introduced with a Declaration of Johnne's disease Status for Alpaca.

Note: The negative testing of alpaca in a particular herd does not ensure that the herd is JD free. Annual testing of 50 different animals in the herd increases the level of confidence that JD is not present in that herd provided negative results are always obtained. Herds allocated Monitored Negative status under the AlpacaMAP have a higher level of assurance that JD is not present than do herds which are only *Check Tested*.

C.3 A herd test equivalent to a Sample Test under Alpaca MAP must be conducted by a veterinarian approved by the State for JD programs and must be carried out in accordance with the AlpacaMAP to give at least 95% confidence of detecting Johnne's Disease if the disease is present in 2% of alpaca over 2 years of age in the sampled herd.

Part E DECLARATION

Only the vendor or a person responsible for the husbandry of the alpaca/goats may complete and sign this Declaration. Stock agents cannot make this declaration on behalf of clients

For further information contact your Stock and Station Agent or veterinary adviser

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 5

GUIDELINES FOR APPRAISAL OF PROPERTY AND HERD MANAGEMENT

Approved veterinarians are strongly encouraged to undertake an initial appraisal on farm with owners, soon after they enquire about enrolling in the AlpacaMAP and before definite arrangements are made to do any testing. It is in the interests of both parties and the AlpacaMAP in general that owners clearly understand their obligations under the program and that approved veterinarians have direct knowledge of the property and herd management that they may be about to supervise and certify. The veterinarian must be confident that the herd and the owner are able to maintain the status that may be assigned.

A similar, although less detailed appraisal of the property and management is required annually to ensure the standard is being maintained.

Identity of the Herd

- Record the names and address of the owner, herd and property (-ies). The details required for the register must be recorded on Appendix 8 and must be included with the herd management plan. Describe the numbers of eligible animals that comprise the herd. This includes all agisted animals in the herd.

Land

- Identify the land to which the AlpacaMAP herd will be confined (hereafter called the land) and the whole property on which it is located.
- Identify areas for mating, quarantine or shearing.
- Determine if the land comprises a number of separate blocks.
- Obtain a plan clearly showing the land, its subdivision into paddocks, watering points and stock handling facilities. Clearly identify any parts of the property that will not be included in the land on which the herd is run. This plan is to be included in the management program.
- Record the type of construction of boundary fences and evaluate their security. Advise where the upgrading of fences is necessary.
- Record neighbouring properties and determine whether they run alpaca or other eligible species.
- Identify any sites that would allow entry of potentially contaminated water or faeces. Assess what barriers to such movement exist and make recommendations where existing barriers are not appropriate to the risk.
- Where changes are necessary, the approved veterinarian must be satisfied that the improvements are made before allowing the status of the herd to progress.

Eligible animals

- Record the number of alpaca and other eligible species on the land.
- Determine the origin of the herd and how long it has been established.
- Determine how assessed animals in the herd will be differentiated from other eligible animals on the property.
- Determine what feral animals run on the land and the risk they present (eg. to fences).

Management of the herd

- Determine a method of individual animal identification which ensures permanent identification of each animal which is been tested.
- Record the general management system in the herd, eg shearing, joining, weaning and weaner management, selling and agistment policies, etc.
- Determine what alpaca have normally been introduced into the herd in the past.
- If land consists of more than one block, determine how eligible animals could be moved between them with a low risk of becoming infected.
- Determine whether alpaca in the herd are reared or run on any other land (eg agistment, group rearing, etc).
- Determine what barriers are necessary to prevent exposure of eligible animals to potentially contaminated areas.
- If animals are to be moved onto or off the property for supervised mating, , overnight stays or shearing, describe the mating, quarantine or shearing area(s) and management that will be undertaken to comply with sections 2.19 and 5.5.

Facilities

- Ensure that yards, races, etc are adequate for sample collection and are not used by non-assessed alpaca or other eligible species.

Records

- Review current property and animal records and determine whether improvements would be needed to comply with the AlpacaMAP.
- Review past Johne's disease testing records.

Owner's Understanding and Consent

- Ensure that the owner is provided with a copy of these rules and guidelines and understands the principles of the AlpacaMAP, especially concepts of risk management, eligible species, the importance of maintaining the integrity of the herd, the serological screening and follow-up of tested positive animals, status declarations and legal liability.
- Review the agreement between the herd owner and approved veterinarian (Appendix 2).
- Devise a Herd Management Plan and modify as required.

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 6

NOTIFICATION OF MAP HERD/FLOCK DETAILS & STATUS/EXPIRY

See next page

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 7

MOVEMENT OF ALPACA FROM ASSESSED HERDS TO OTHER PLACES

Background

The AlpacaMAP defines a herd as a group of alpaca and any other eligible species which grazed the same land during a 12-month period and/or share the same facilities (see Section 2.2). It also requires that alpaca moving into assessed herds must originate from herds of similar or higher status (other than as permitted in section 5) or the herd status will revert to that of the introduced animals (see Section 4.9).

This means that alpaca from an assessed herd cannot be run on any land or share facilities (other than as permitted in section 5) with animals from Non-Assessed herds. However, herds enrolled in the AlpacaMAP may need to move alpaca from the property and have them returned. The most pressing circumstance may be drought, but it will also occur with attendance at shows, sales and for breeding.

The following rules enable some of these movements without unduly risking the assessed status of a herd to which they return or subsequently move.

Maintenance of herd status when alpaca are moved to other places

These rules apply to herds assessed as Monitored Negative 1-3 and to Non-Assessed (NA) herds that are currently undergoing tests for entry into the program.

1. "Land" includes all places to which alpaca from assessed herds may be removed, including pens, sheds, watering places, laneways and holding yards at saleyards, showgrounds and temporary pens used for mating.
2. The herd owner and the approved veterinarian will take an active role in selecting land to which alpaca from the assessed herd will be moved, with a view to minimising the risk of infection. The property management plan must be amended to document the procedures necessary to protect the herd status while alpaca are away.
3. Alpaca must be moved by a conveyance (motor vehicle, trailer) that has been thoroughly cleaned (scraping and hosing out is adequate) since last carrying any animals. The owner must ensure that the driver understands the need to keep alpaca from the assessed herd separated from animals from non-assessed herds and to prevent exposure to faecal contamination from any such alpaca or other eligible species.

The approved veterinarian may give approval to walk animals a short distance but must first appraise the risk that this represents. Loading yards must be assessed on a case by case basis.

4. Animals may move to other land for the purposes of agistment, etc, and retain their status under the MAP if the following conditions are satisfied:
 - prior to being dispatched to lease or agistment country, a risk assessment of the lease / agistment country must be conducted.
 - *for any alpaca from any assessed herds*
 - land that has not been stocked with eligible species during the past 12 months, or
 - land in a Free Zone that has not been occupied by any eligible species of a herd that is infected or suspected of being infected during the previous 12 months, or
 - land on which a MAP assessed herd of eligible species of the same or higher status is run.

- *for any alpaca from an MN1 herd*
 - land in a Protected zone that has not been occupied by any eligible species of a herd that is infected or suspected of being infected during the previous 12 months.

The owner will obtain a written declaration to this effect from the person in charge of the land and this declaration must be certified by the district's government veterinarian.

Where "land", such as yards or sheds, has floors and fixtures that can be thoroughly cleaned to remove faecal contamination and/or covered to prevent contact with faecal contamination, the above declarations will not be required, if the person in charge of such land declares in writing before hand that:

- the floors and fixtures have been thoroughly cleaned by scraping and hosing out and there is no visible evidence of faecal contamination, or
 - faecal material has been removed and the area covered so that no faecal material can be contacted by any alpaca.
5. The owner will also obtain from the person in charge of the land, a written declaration that no other eligible species will be run on the land with the alpaca at any time unless they are accompanied by a declaration that they originate from a herd of the same or higher status.
 6. Alpaca must be constrained by natural barriers, fences, walls, tethers or other reasonable means to ensure that they are satisfactorily confined to the land.
 7. The revised property management plan, declarations and certificates are subject to audit.

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 8**GUIDELINES FOR SHOWS, SALES AND EXHIBITIONS**

These guidelines are designed to minimise the risk of Johne's disease spreading between alpaca at shows, sales and exhibitions and therefore to encourage the participation of, and protect the status of, alpaca from assessed herds. They have been revised from Appendix 8 in the 1998 AlpacaMAP and Appendix 1 in the 2000 CattleMAP, taking into consideration developments in management of this aspect by the Federal Council of Agricultural Societies during 2000.

They should be read with Appendix 7 Movement of Alpaca from Assessed Herds to Other Places.

Organisers and Owners

Owners and officials need to be mindful of the following important aspects of Johne's disease control:

- The most likely method of spread of Johne's disease is by the faeces of infected animals being ingested by other animals. Young alpaca less than 12 months are probably the most susceptible group.
- Where only adult alpaca from different sources are mixed there is a low risk of disease spread which can be further reduced and more easily managed by good hygiene or separation of animals of different status.
- Other eligible species such as cattle and goats also present a risk of transmitting Johne's disease to alpaca
- Ingestion may occur by drinking contaminated water, and eating contaminated feed or other material.
- Alpaca from herds assessed under the Alpaca MAP may be jeopardising their status if they mix with non-assessed alpaca under conditions where disease may spread.
- Grazing of areas which have previously been occupied by alpaca or other eligible species must be avoided.

Owners of assessed herds should carefully review the risks and benefits of taking young alpaca to shows and sales. The level of hygiene management necessary if cria are present will need to be appropriate for their increased susceptibility.

Neck tags and signs bearing the MAP assessed logo can be used to easily distinguish alpaca from assessed herds from non-assessed animals.

Preventing spread of Johne's disease amongst animals at a show or sale and protection of the negative status of alpaca from herds assessed under the Market Assurance Program depends on:

- **good hygiene** combined with some **separation** of assessed and non-assessed alpaca to prevent the ingestion of faeces or contaminated feed or water, and
- **entry requirements** that reduce the risk of infected animals coming to the show or sale.

Owners and Approved Veterinarians

While organisers are encouraged to implement a high level of hygiene management and appropriate entry requirements, the herd owner is responsible for ensuring that the status of animals from the assessed herd is not compromised at the event.

Approved veterinarians need to advise owners of assessed herds as to whether the status of the herd will be maintained or downgraded to a lower status if they return alpaca to the assessed herd, or send alpaca to another assessed herd after the show or sale.

The level of hygiene management and the potential contact between alpaca from assessed herds (especially cria) and alpaca or other eligible species of non-assessed or lower status must be considered.

Venue Audit

The Federal Council of Agricultural Societies has endorsed a Venue Audit and compliance Certificate (included in this Appendix) to facilitate compliance of venues with standards that would protect the low risk status of herds from Free and Protected Zone and from MAP assessed herds.

Although it is not compulsory that venues be audited, it is strongly recommended. Such a standard, visible process for approving venues has benefits to both show and sale organisers and to exhibitors.

Approval of a venue will be undertaken by an approved veterinarian with the Chief Steward or his or her representative as follows:

- a venue management plan will be prepared at least 14 days before animals enter the venue.
- the approved veterinarian will inspect the venue for compliance immediately before animals are brought to the venue and will issue a certificate of compliance to be displayed for exhibitors at the event.

Separation

- Separation capable of preventing movement of faeces or contaminated food, water or bedding in transit and at the show or sale may be achieved by physical means and/or by managing the time or order in which alpaca use facilities.
- Owners will ensure that alpaca from assessed herds are transported to the show or sale in well cleaned vehicles, with no mixing with non-assessed animals.
- There will be a space and a distinctive divider between alpaca from assessed herds, herds currently under test to enter the MAP and non-assessed herds housed or stalled in the one facility at the same time. Separate buildings are not essential and assessed alpaca may be separated from non-assessed alpaca within lines of each type.
- All alpaca need to be adequately supervised at the venue.
- All alpaca will be led when not penned.
- Assessed alpaca and non-assessed alpaca will not share watering troughs or isolation areas.

Hygiene Management

- Alpaca will be fed and watered above ground level.
- Exhibitors should preferably supply their own feeding and watering equipment.
- The floors of the sheds and stalls housing assessed alpaca will be cleaned and washed of faecal material or covered before assessed alpaca enter the facility.

Note: If assessed alpaca are to be housed in areas that cannot be cleaned or covered, and where non-assessed alpaca or other susceptible species have been previously, then the rules for Movement of Alpaca from Assessed Herds (Appendix 7) will apply.

- Faecal material will be collected regularly and removed to a place where stock have no access.
- Equipment used for mucking out stalls, sheds, etc will be cleaned regularly to prevent build-up of faeces.
- Sick alpaca will be isolated if Johne's disease is considered a possibility.

Entry Requirements

Bearing in mind their responsibility in regard to the spread of disease at an event under their supervision, show and sale organisers will determine what entry standard they will impose for the event. As long as venue management is conducted as described in this Appendix, entry requirements for JD are optional.

The requirements will depend on the standards of separation and hygiene that can be implemented at the venue, what exhibitors they wish to attract and on what eventual destination and movement requirements the organisers wish to meet in advance.

The Federal Council of Agricultural Societies has also endorsed a standard Alpaca Herd Health Declaration for Shows and Sales (included in this Appendix) which outlines the requirements that may be considered.

Please note

- *Where an organiser wants to apply an entry requirement for JD that involves testing animals to be exhibited, tests should only be conducted on animals over 12 month of age, and within 6 months of the event.*
- *Alpaca should be tested at least 3-4 months before entry so as to allow sufficient time for a negative faecal culture result*

ALPACA HERD HEALTH STATUS DECLARATION FOR SHOWS & SALES

Instructions to Owners/Exhibitors:

1. Complete **Part 1** of this form.
2. This form is not an interstate entry permit. However, if stock are likely to be sold or moved onwards from a show, **Part 2** should be completed by your local animal health official to assist authorities prepare the necessary official interstate movement certificates.
3. If Johnes Disease (JD) testing has been undertaken, get your Private Vet to complete **Part 3**, or attach a veterinary certificate.
4. This Herd Health Status form is valid for 6 months from the date of issue. The owner must notify the issuing Government veterinarian or Animal Health Officer of any change in herd status or other information on the form subsequent to completion of this form.

THIS FORM IS NOT ACCEPTABLE AS AN ENTRY PERMIT TO OTHER STATES AND/OR ZONES

**PART 1
OWNER/EXHIBITOR DECLARATION**

TRADING NAME

ADDRESS: POST CODE

PROPERTY ADDRESS POST CODE

TELEPHONE FAX

PROPERTY NAME. STUD NAME

PROPERTY ON WHICH ALPACA ARE CURRENTLY RUN (IF DIFFERENT)

SALE/SHOW DATE

ANIMAL IDENTIFICATION (attach list if necessary)

NAME	Date of Birth	Male or Female	Huacaya or Suri	I.A.R No.

NOTE: A show or sale may want to use only the higher entry requirements below and may delete one or more clauses that do not meet the standard.

I, Owner / Manager / Exhibitor (print name)

of (print address)

declare that with regard to Johnes's disease. **(Tick the box for the clause/s which apply)**

- (1) The alpaca identified above originate from a Free , Protected , Control , Residual , Zone for BJD, in alpaca
- (2.1) The alpaca identified above originate from assessed herds under the Alpaca MAP, with status attained in the year indicated; eg MN1

MN1 MN2 MN3 Herd Status Certificate No. Date of expiry
- or**
- (2.2) The alpaca identified above originate from herds that have not been assessed for Johnes's Disease (ie: Non Assessed status).
- or**
- (2.3) The alpaca identified above originate from herds that have been Check Tested negative (ie CT) in the past 12 months.

Date Tested

Approved Veterinarian:
- or**
- (2.4) Where applicable the alpaca identified above which are 1 year of age or older have been tested by faecal culture by a registered veterinarian negative results within 6 months before the date of the show/sale/exhibition.

Where the alpaca are less than 1 year of age the dam will be tested.
- or**
- (2.5) The alpaca identified above originated from a herd that is registered in the Australian Alpaca Association's Q-Alpaca Program.
- or**
- (2.6) The alpaca identified above originate from a herd that is currently under test for entry to the Alpaca MAP and I have no reason to suspect that Johnes's disease exists on any of the properties listed above.

Exhibitors may also need additional certification to move between Zones or between States. Check with local veterinary authority. The above information, including the description of the animals and property/ies of origin is complete, true and correct.

Signature Date

PART 2
ENDORSEMENT OF HERD STATUS

*Note: This is an option that may be used to assist completion of official movement forms where there is a reasonable probability that animals will proceed another state or zone directly from the show or sale. It is **not** an official certificate.*

(To be completed by Government Veterinarian/Inspector of Stock if intending to move stock Interstate)

The property(s) being certified in relation to the Owner's Declaration has/have been allocated Tail Tag Number/s

.....to which the following information applies.

To the best of my knowledge and belief.

- (1) I have no reason to doubt the owner's declaration in Part 1 above.
- (2) Under the Australian Standard Definitions & Rules for Johne's disease, the herd/s has/have an assigned a herd status of

.....

HERD STATUS

Non-Assessed (NA): means the infection status of the herd is unknown, but the herd is not under suspicion. Check Tested (CT): the herd has had a negative Check Test undertaken by an approved veterinarian in the past 12 months. Monitored Negative (MN): the herd has an Assessed status under the Australian Johne's Disease Market Assurance Program for Alpaca (Alpaca MAP).

Q-Alpaca: The herd is registered in the Q-Alpaca program by the Australian Alpaca Association.

Inspector of Stock: Signature

(PRINT NAME)located atoffice.

Date of issue.....Telephone:Fax:.....

PART 3
JOHNE'S DISEASE TEST RESULTS

(To be completed by the Veterinary Surgeon conducting the tests or Government officer upon receipt of test results, or attach veterinary certificate).

The individual alpaca listed below were tested for Johne's Disease by faecal culture with a negative result.

Alpaca IAR (numbers).....

.....

Date of test.....

Laboratory.....

Accession No.

If tested by Veterinary Surgeon

If tested by Government Officer

<i>Name of testing veterinarian:</i>
<i>Signature</i>
<i>Practice Name & Location:</i>
<i>Phone/Fax</i>

OR

<i>Name of government officer:</i>
<i>Signature</i>
<i>Location:</i>
<i>Phone/Fax</i>

ALPACA MAP SHOW, SALE & EXHIBITION VENUE AUDIT

Compliance Checklist

It is recommended that an inspection be undertaken 2-3 weeks before the event so that defects can be corrected, exhibitors advised and venue audited immediately before this event. Auditor and Chief Steward should be familiar with and understand the relevant rules and regulations of the AlpacaMAP.

Certificate of Compliance should be displayed for exhibitors to sight on arrival before unloading.

VENUE: _____

EVENT: _____ DATE: _____

VENUE MANAGEMENT COMMITTEE:

EVENT COMMITTEE REPRESENTATIVE:

AUDITOR: _____

ADDRESS: _____

DATE: _____ SIGNATURE: _____

1. Entry requirements to minimise the risk of infected animals attending the Show. (Tick the appropriate box)

MINIMUM DECLARATION

Exhibitor's Declaration that the herd status is Non-Assessed (ie: the herd has not been assessed for Johne's Disease and Johne's Disease is not suspected in the herd).

DECLARATION & NEGATIVE TEST

Minimum as above plus testing negative of all exhibited alpaca over 12 mths of age.
Where the alpaca are less than 1 year of age the dam will be tested.

CHECK TESTED (CT) or Q-ALPACA

Only entry of CT, Q-Alpaca and higher status herds (including AlpacaMAP herds and herds from Free and Protected Zones).

MN STATUS OR EQUIVALENT

Only entry of MN1 or higher status herds assessed under the AlpacaMAP (Note: Herds in Free and Protected Zones have a status equivalent at least to MN1).

ALPACA MAP SHOW, SALE & EXHIBITION VENUE COMPLIANCE AUDIT

2. Action to minimise the risk of infection spreading at the Show.

2.1 Previous stock use in last twelve months & date.

Sheep

Goats

Camelids

Deer

Cattle.....

2.2 Decontamination procedure between events

Comment

.....

2.3 Inspection of site for faecal contamination

Comment

.....

Satisfactory Yes or No

a. HOUSING STANDARDS:

a.1 Assessed alpaca and non assessed alpaca are separated by a minimum distance of 2 metres or a solid wall 1 metre high.

Yes or No

Comment

.....

a.2 Different coloured ear/tail tags are used to differentiate animals from assessed and non-assessed herds.

Yes or No (optional)

a.3 Signs used to identify areas that are restricted to Assessed Stock.

Yes or No

Comment

.....

b. HYGIENE STANDARDS:

b.1 Provision and instruction has been made to feed and water animals from containers with a minimum height of 45cm above ground.

Yes or No

Comment

.....

b.2.1 All alpaca will be led when not penned in allocated areas.

Yes or No

Comment

.....

b.2.2 Alpaca will not be permitted to graze on grassed areas.

Yes or No

ALPACA MAP SHOW, SALE & EXHIBITION VENUE COMPLIANCE AUDIT

Comment

b.3.1 Provisions have been made to promptly remove faecal contamination in common areas. Yes or No

Comment

b.3.2 Faeces and contaminated bedding will be removed to a place to which stock do not have access. Yes or No

Comment

b.4 During pen cleaning, alpaca will be kept away from areas, fixtures or bedding that has been contaminated by other animals. Yes or No

Comment

b.5 Provision has been made for a steward to inspect the exhibited alpaca and any alpaca exhibiting signs consistent with BJD will be isolated. Yes or No

Comment

c. *ADVICE TO EXHIBITORS:*

c.1 All exhibitors have been advised of the above guidelines. Yes or No

Comment

c.2 All exhibitors have been advised to thoroughly clean out vehicles & trailers used to transport stock. Yes or No

Comment

c.3 All exhibitors have been advised to separate alpaca from assessed and non assessed herds and have all animals tethered or penned at all times Yes or No

Comment

AUDIT SUMMARY

Provisions comply with AlpacaMAP Guidelines Yes or No

	Description of element
Non Compliance:	Minor Defect _____
	Major Defect _____
	Critical Defect _____

Chief Steward signs that he/she understands the above listed requirements and that these requirements will be met during the show.

Chief Steward Signature _____ Date _____

Auditor Signature _____ Date _____



**Australian Johne's Disease
Market Assurance Program for Alpacas
(Alpaca MAP)**

**SHOW, SALE & EXHIBITION
CERTIFICATE OF COMPLIANCE**

This is to certify that

EVENT _____

VENUE _____

DATE _____

Coordinated by _____

COMMITTEE OF MANAGEMENT _____

COMMITTEE REPRESENTATIVE _____

has been audited with a health status of and the organiser has undertaken to manage the event so as to maintain the status of exhibitors' stock, compliant with the current Alpaca MAP guidelines.

AUDITOR: _____

Address: _____

Phone: _____

Signature: _____ Date: _____

Alpaca Audit 09/06/05

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 9**SELECTING ALPACA FOR SAMPLE TESTS - LARGE HERDS ONLY**

The alpaca to be tested in the herd must be selected by the following procedure:

- Calculate the total number of alpaca 12 months and older.
- From the table below determine the sample required from a herd of that size.
- The alpaca to be sampled should be selected by an unbiased method except that the number of males and females sampled should be in proportion to the total males and females in the herd.

Sampling Method

The number of alpaca 12 months and older to be sampled from a herd to provide 95% confidence of detecting infection at a prevalence of at least 2%. (Assumes average sensitivity of 50% for the faecal test.)

Herd Size (No alpaca >1 yr)	No. of alpaca to sample
less than 210	★ ALL
220	217
240	223
260	228
280	232
300	236
350	244
400	250
450	255
500	259
700	270
800	273
900	276
1000	278
1200	282
1400	284
1600	286
1800	287
1900	288
2000	289
2200	290
2400	290
2600	291
3000	292
3500	293
4000	294
5000	295
10000	297
Maximum	300

★ *In herds with fewer than 210 alpaca 12 months of age or older all of these animals must be tested.*

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 10

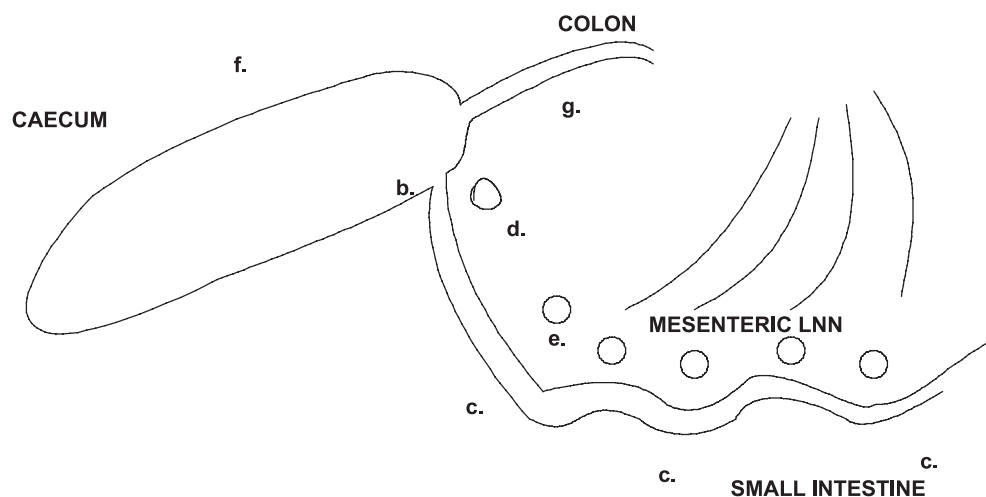
SPECIMENS TO BE COLLECTED FOR LABORATORY SUBMISSION

The standards for diagnosis of Johne's disease are determined by Veterinary Committee's Sub-committee on Animal Health Laboratory Standards (SCAHLs). The diagnostic techniques for Johne's disease are improving and, as necessary, SCAHLs will advise approved laboratories of changes to standard procedures and specimens to be examined. As knowledge of the distribution of lesions in infected alpaca improves, the tissues examined by histopathology may be amended.

To ensure that the required information and specimens are available for laboratory examination, the following must be submitted to an approved laboratory for follow-up investigation of tested positive animals which have been euthanased (see Section 6.4.1) and when investigating suspect cases which have died (see Section 7.2) in the AlpacaMAP.

1. specimen advice form, with full details of the history and post mortem findings,
2. faecal sample, and
3. fresh samples for tissue culture and preserved samples for histopathology, after a thorough examination of the intestine and associated lymph nodes:
 - a) any tissues with gross lesions suggestive of Johne's disease.
 - b) the entire ileo-caecal valve including the 5cm of ileum immediately adjacent to it.
 - c) three additional 5cm pieces of small intestine taken at about 1 metre intervals anterior to the ileocaecal valve.
 - d) ileocaecal lymph nodes.
 - e) ileal (also called terminal mesenteric or caudal jejunal) lymph node.
 - f) piece of caecum.
 - g) piece of proximal colon.

Sites for tissue sampling:



AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 11

MOVEMENT RECORDS

1. Record of Animal Movements

This is used for animals in the assessed herd and animals visiting the assessed herd

Herd Name:

Dates	Moved ON/ OFF	TO/FROM Place	Status of Herd/ Show	Animal Identities	Reason for Movement & Comments (incl details of quarantine areas)

2. Travelling Animal Passport

Herd Name: **Animal Name:** **ID No:** ...

Place	Purpose	Herd Status	Date arrived	Date departed	Comments (incl any tests)

AUSTRALIAN JOHNE'S DISEASE MARKET ASSURANCE PROGRAM FOR ALPACA

APPENDIX 12

AUSTRALIAN ALPACA ASSOCIATION BIOSECURITY GUIDELINES

Q-ALPACA BIOSECURITY GUIDELINES

The Australian Alpaca Association, following extensive consultation with BJD TAG and Animal Health Australia, proposes that alpaca herds will qualify for recognition under its biosecurity program, *Q-Alpaca*, if they comply with the following elements.

1. Eligible herds would not be known or suspected to be infected with Johne's disease.
2. A written agreement between the owner and an approved veterinarian.
3. A Herd and Property Management Plan to a standard comparable to that in the AlpacaMAP.
4. Records of animal identity, origin and destination for movements into and out of the herd.
5. Post-mortem examination of any animal over 12mo that dies or is euthanased and of any cria under 12mo that is showing emaciation or diarrhoea and dies or is euthanased.
6. Where clinical signs are suggestive of Johne's disease, post-mortem investigation will be undertaken and samples collected for culture and histopathology as described in AlpacaMAP Section 7 and Appendix 10.

NOTE: As other environmental mycobacteria may cause similar histological lesions as Johne's disease in alpaca, tissue culture should be undertaken to identify the causative agent.

7. Where the *Q-Alpaca* herd's approved veterinarian is not always available to conduct post-mortem examinations for *Q-Alpaca*, he or she may authorise another veterinarian who is approved for MAPs in alpaca or other species to undertake them on his or her behalf.

Where another approved veterinarian is not available, the herd's approved veterinarian may apply to the CVO to nominate another veterinarian to undertake the examination in compliance with clause 6.

8. *Q-Alpaca* herds do not automatically qualify as being equivalent to MN1 in the AlpacaMAP. A *Q-Alpaca* herd would qualify for equivalence to MN1 if it:
 - a) is not run with other susceptible animals, or
 - b) is run with sheep with a minimum ABC score of 2 (ie the number of credits for a sheep flock in SheepMAP that has had one Sample Test), or
 - c) is run with animals, classified as eligible animals in the AlpacaMAP, that are part of a MAP herd or flock or any other herd or flock that would be eligible for unrestricted entry to a MAP herd or flock. (Note: "Unrestricted entry" means that the numbers and types of animals are not restricted and are not subject to additional testing or management rules by the MAP. Rules for introduction to CattleMAP herds are being reviewed in light of new assurance base trading schemes.)
9. Alpaca could be introduced to *Q-Alpaca* herds from:
 - a) AlpacaMAP herds, and
 - b) *Q-Alpaca* herds that have been enrolled in *Q-Alpaca* for at least 6 months, and
 - c) Non Assessed alpaca herds, subject to isolation and a negative faecal culture.

ALPACA MAP



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