

Transfer & Processing of Grape Must & Juice

ICA -22: Preventing the Spread of Grape Phylloxera

Revision Register

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1. Purpose

The purpose of this procedure is to describe:

- the principles of operation, design features and standards required for the transfer of grape must and fresh juice; and
- the responsibilities and actions of personnel;

that apply to the transfer of grape must and fresh juice from a phylloxera infested zone (PIZ) or phylloxera risk zone (PRZ) for winemaking in a PRZ or phylloxera exclusion zone (PEZ) under an Interstate Certification Assurance (ICA) arrangement.

2. Scope

This procedure covers all certification of the transfer of grape must and fresh juice by a business operating under an Interstate Certification Assurance arrangement. This procedure is sub-divided into three parts under the headings of responsibility, requirements, specifications and control by:

- The Crusher
- The Carrier
- The Winery

The different zones (PIZ, PRZ, PEZ) can be within a state, or in different states.

The arrangement cannot be extended to other products, or another business without the approval of the Accreditation Authority in the importing state.

Juice which has been filtered or otherwise processed to achieve a maximum particle size of 50 microns is exempted from intrastate and interstate quarantine conditions. As such filtered juice is able to move without restriction.

Certification under this procedure may not be an accepted quarantine entry condition for all produce to all intrastate and interstate markets.

Some intrastate or interstate markets may require additional quarantine certification for pests and disease other than phylloxera as a condition of entry.

It is the responsibility of the business consigning the produce to ensure compliance with all applicable quarantine requirements.

Information on intrastate and interstate quarantine requirements can be obtained from the DEPI Inspector in your district.

3. References

National Phylloxera Management Protocol (2009)

Plant Biosecurity Act 2010

Plant Biosecurity Regulations 2012

4. Definitions

Consignment	means a discrete quantity of grape must or juice consigned to one business at one time covered by a single certificate.
Crusher	means a primary processing facility which can undertake one or a number of processes including crushing or pressing grapes and settling, centrifuging or filtering, in order to produce must or juice.
Fresh / Unfiltered Juice	means the liquid fraction from must, excluding skins, seeds, and other large solids, but may contain some suspended solids.
Marc	means the solids residue from pressing of must or of wine fermented on skins; contains skins, seeds, and possibly stems. Marc may contain grape sugar ('sweet' marc) or be fermented ('dry' marc).

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Must	means the product from crushing grape berries, including juice, skins, seeds, pulp and possibly some stems and leaves. However, in the context of this procedure it also includes unclarified juice.
Phylloxera	means the pest Grape Phylloxera, <i>Daktulosphaira vitifolii</i> (Fitch).
Tanker	means any vehicle which is used to carry a consignment of grape must or juice.
Tanker Driver	means the person in the transport company approved to drive the tanker used to carry a consignment of grape must or juice.
Transport Coordinator	means the person in the transport company with overall responsibility for ensuring the effective and safe transport of grape must or juice.

5. Responsibility

These position titles have been used to reflect the responsibilities of staff under the ICA arrangement. These positions may not be present in all Businesses, or different titles may be used for staff who carry out these responsibilities. One person may carry out the responsibilities of more than one position.

The **Certification Controller** is responsible for ensuring:

- staff are trained to perform duties in accordance with the ICA procedure;
- the effective operation of all aspects of the ICA and notifying the DEPI of any problems;
- that the Authorised Signatory and Transport Controller are aware of their responsibilities;
- accreditation is current and the DEPI is notified of changes to authorised staff;
- that inspection and cleaning equipment is available and is operating effectively;
- tankers are inspected on arrival for correctly sealed valves and other openings, and cleanliness;
- copies of Product Movement Declaration and all records are maintained; and
- periodically undertaking an internal audit, or in the event of any nonconformity a detailed review of all aspects of the procedures.

The **Authorised Signatory** is responsible for:

- ensuring crusher staff are trained to perform duties in accordance with procedures;
- ensuring that all operations at the crusher are conducted as per this procedure;
- ensuring that the tanker is included under the accreditation of the transport company;
- inspecting tankers before signing the Product Movement Declaration;
- completing a Product Movement Declaration for consignments sent under this ICA; and
- checking that details in the Product Movement Declaration are accurate and ensure that the original accompanies the consignment and a copy filed.

The **Transport Coordinator** is responsible for:

- ensuring all tanker drivers involved in the transport of product are aware of their responsibilities under the ICA;
- ensuring that records associated with the transport of product are filed with a copy of the Product Movement Declarations; and
- take action to ensure the containment and safe disposal of any spillage of product that may occur during transport.

The **Tanker Driver** is responsible for:

- understanding the requirements of transporting product certified under this ICA;
- travelling by approved routes;
- reporting all instances of spillage (en route) and immediately notifying the Transport Coordinator, and the Animal, Plant & Chemical Operations Branch of any major spillage; and
- providing the Product Movement Declaration to the Transport Controller at its destination.

6. Specifications

6.1. Product

Products covered by these procedures are must and fresh juice.

6.2. Crusher Operations

The crusher shall provide, as well as normal grape processing and cooling equipment:

- a hard stand tanker-truck cleaning and inspection area, with sealed surface and wash down and drainage facilities; and
- a dedicated tanker loading area, with a hard stand (sealed) surface. A multi-purpose loading, cleaning and inspection area is acceptable. It is desirable that roadways for tankers be sealed (or at least properly formed with a hard surface) and be separated from roadways adjacent to vineyards and roadways used for carrying grapes from vineyards to the crusher.

The grape receiving and processing area must be separated from the loading and dispatch point. Attention must be given to appropriate signs and notices to ensure proper use of designated areas, applicable speed limits, restricted access areas etc.

Emphasis must be on containment and prevention of cross contamination.

For a list of specifications at the crusher, see Attachment 2.

6.3. Carrier Operations

Tanker trucks must be in good condition, thoroughly clean and readily cleanable inside and out.

Tankers must be able to be sealed effectively to prevent leakage or spillage of must or juice.

Valves should enable tankers to drain dry after emptying and cleaning.

Trucks shall be equipped with an effective means of mobile communication such as CB radio or mobile phone and should carry an alert folder that contains procedures for action to take in the event of a spillage, and emergency contact phone numbers.

For a list of specifications for the carrier, see Attachment 3.

6.4. Winery Operations

The winery should have a dedicated unloading area, separated from traffic to and from local vineyards (eg path of trucks delivering grapes to the winery). The unloading area should have a sealed, hard surface with wash down cleaning facilities and drainage to a safe area (ie with no risk of infesting vineyards).

Signs should be used to indicate designated areas and roadways, and controlled no-entry areas.

Wineries receiving juice or must from a PIZ or PRZ must dispose of waste, including wastewater, in a manner to promote containment and prevention of cross-contamination.

Waste material, other than water, must be to an area at least 500m from any vines and remote from any traffic route to and from vineyards or an equivalent secure disposal system. Engineered systems with design and operational measures to retain solids would allow for dispensation from the distance specifications.

The winery is required to maintain adequate security of vessels to prevent accidental or malicious spillage of imported juice and must.

For a list of specifications at the winery, see Attachment 4.

The DEPI and interstate quarantine authorities maintain the right to inspect at any time certified produce and to refuse to accept a certificate where produce is found not to conform to requirements.

6.5. Process Control

6.5.1. At the Crusher

Grapes grown in the PIZ or PRZ must be transferred directly to the crusher and are to be processed as follows:

- where it is intended to transfer whole must (e.g. from black grapes destined for red wine), the grapes are de-stemmed and crushed.
- where it is intended to transfer juice, grapes may be crushed with or without de-stemming.
- where juice may not be fermented immediately by the purchaser, the juice must be clarified by centrifugation and/or filtration to a maximum of 0.05% solids.

Must used for juice preparation is screened and pressed. The separated juice is settled, and may be centrifuged and/or filtered to produce clarified juice. Juice may be recovered from solids after cold settling, for example by filtration through a plate and frame lees filter or a rotary drum earth filter.

Must and/or juice is loaded onto the transport tanker or bulk container in the designated loading area.

The Authorised Signatory must complete a Product Movement Declaration (Attachment 1) for each tanker load of product that leaves the crusher, giving the original copy and a transport copy to the tanker driver to accompany the consignment.

A copy of the Product Movement Declaration must be filed with records on origin of grapes, their processing, loading and dispatch, for audit purposes and traceability.

6.5.2. Transport by the Carrier

Tankers entering the crusher's premises must travel by the specified roadways observing a 15km/h speed limit, unless otherwise specified.

Tankers are to be parked initially on the dedicated cleaning/inspection bay and both the inside and outside of tankers and trucks thoroughly cleaned, using high-pressure water and/or steam, and inspected.

Special attention is to be given to ensure that the undersides, suspension, mudguards, etc, of tankers are totally free of soil and plant residues.

Tanker Drivers must not enter vineyards or grape processing areas.

Must or juice is pumped onto the tanker. Any spillage or overflow is to be washed off to the disposal system.

All tanks are effectively closed and sealed, and the tanker cleaned thoroughly.

The tanker must be inspected by the Authorised Signatory of the crusher for sealing of valves and other openings and cleanliness before departure. If it fails the inspection the driver must correct the problem to the satisfaction of the Authorised Signatory.

The Tanker Driver will follow the approved route to the destination outside the PIZ or PRZ, but if this is not possible will indicate the variation to the route and the reasons for departure on the transport section of the Product Movement Declaration (Attachment 1). The route should be as direct as possible, confined to hard surfaced (preferably sealed) roads and must totally avoid entry to vineyards or their immediate surrounds and be approved by the Transport Coordinator.

In the event of an accident and spillage of product en route:

- if the spillage is minor the driver must indicate this on the Product Movement Declaration; and
- if the spillage is major and particularly on a roadway adjacent to vines, the driver is to contact the Transport Coordinator and an authorised officer immediately to arrange containment and safe disposal, for example by absorbing spilled product with sand and then removing to a disposal area at least 500 m from any vine.

6.5.3. At the Winery

Tankers entering the winery must travel by the specified roadways, to the dedicated unloading area, at a speed not exceeding 15 km/h, or other specified speed limit.

The tanker must be inspected for cleanliness (especially for any plant residues and soil) and adequate sealing of the tanks immediately upon arrival.

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Before unloading is commenced, the Tanker Driver will complete the Product Movement Declaration and give it to the Certification Controller of the receiving winery to verify that the document is accurate and complete. Upon verification, the Certification Controller of the receiving winery must sign the declaration on the Product Movement Declaration.

A completed copy of the declaration should be retained by the Transport Coordinator along with any other documents related to the transport of the consignment for filing. The receiving winery must also keep a copy of the completed Product Movement Declaration for audit purposes.

Discharge will vary depending on the product:

- Clarified juice is pumped from tanker to closed receiving vessels;
- Unclarified juice is pumped to a closed fermentation vessel or a heat concentrator; or
- Must is pumped directly to a closed fermentation vessel or a heat concentrator.

Must from a PIZ or PRZ may not be separated into juice and sweet marc at the receiving winery.

Any spillage is washed down into the waste disposal system.

Fermentation of juice of must in closed vessels shall be initiated within four hours of unloading.

Where must is imported, it must be fermented:

- for at least 4 days before separation from marc, or
- for at least 2 days before separation of marc, in which case the partially fermented marc must be kept separate from other marc and the press is emptied and cleaned before further use.

The separated marc is fermented to dryness before removal either:

- for further processing by steam extraction and distillation; or
- by composting in a site at least 500m from any vineyard.

The tanker must be cleaned inside and out with high-pressure hoses and disinfested with hot water or steam before it leaves the winery.

Records on the origin of all must and juice, from a PIZ or PRZ, processing details, and disposal of marc must be retained and filed with the Product Movement Declaration for each tanker consignment of product.

6.6. In-Process Identification and Traceability

The original, or a copy, of a uniquely numbered Product Movement Declaration should be filed with relevant processing, transport and receipt documents held by the crusher, transporter and winery. An adequate filing system should be established and maintained by the crusher, transporter and winery to allow ease of traceback or trace forward.

6.7. Corrective Action

If minor operational problems are detected with these procedures, they should be directed to the Certification Controller who must investigate the problem and take corrective action.

Major problems (ie it is likely to compromise the effectiveness of the procedure), must be reported to the Plant Standards Branch. Plant Standards will investigate the circumstances and take corrective action in liaison, where necessary with other Interstate Authorities included in the ICA.

If a critical nonconformity is found no product must be moved from the PIZ or PRZ under the ICA until the problem is rectified.

6.8. Training

Nominated staff (Certification Controller, Transport Coordinator and Authorised Signatories) shall receive instruction on ICA procedures and responsibilities from an authorised officer.

The Certification Controller, Transport Coordinator and Authorised Signatories must ensure that key staff are aware of their responsibilities and purpose of the procedures used in the ICA.

The accredited Business must include a training register in their ICA manual detailing staff training related to the operation of the ICA.

7. Accreditation

7.1. Application for Accreditation

A business seeking accreditation for an ICA arrangement under this procedure shall make application for accreditation at least 10 days prior to the intended date of commencement of certification of produce.

7.2. Audit Process

7.2.1. Initial Audit

Prior to accrediting a business, an Inspector carries out an initial audit of the business to verify the system is implemented and capable of operating in accordance with the requirements of the procedure, and the system is effective in ensuring compliance with the specified requirements of the ICA arrangement.

On completion of a successful initial audit, applicants will be granted provisional accreditation and posted a Certificate of Accreditation (refer 7.3).

7.2.2. Compliance Audit

Compliance audits are conducted to verify that the ICA system continues to operate in accordance with the requirements of the Operational Procedure.

Compliance audits are, wherever practical, conducted when the ICA system is operating.

A compliance audit is conducted within two weeks of the initial audit and accreditation of the business.

On completion of a successful compliance audit, annual accreditation is granted to cover the current season, up to a maximum of twelve months from the date of provisional accreditation (refer 7.3).

Annual compliance audits will be conducted between three and six weeks after the date of re-accreditation, or due to the short harvesting period, conducted when the ICA system is operating.

Random audits are conducted on a selected number of accredited businesses each year. Random audits may take the form of a full compliance audit, or audits of limited scope to sample treatment mixtures, certified produce, ICA system records or ICA system documentation.

Unscheduled compliance audits may be conducted at any item to investigate reported or suspected non-conformances.

7.2.3. Reaccreditation

Accredited Businesses are required to re-apply for accreditation each year the Business seeks to operate under the ICA arrangement. Businesses seeking re-accreditation must lodge a renewal application prior to accreditation lapsing, or if accreditation has lapsed, prior to commencing further certification of produce under the ICA arrangement.

7.3. Certificate of Accreditation

An Accredited Business will receive a Certificate of Accreditation for an Interstate Certification Assurance Arrangement detailing the facility location, Operational Procedure, scope and period of accreditation.

The Business must maintain a current Certificate of Accreditation and make this available on request by an Inspector.

A Business may not commence or continue certification of produce under the ICA arrangement unless it is in possession of a valid and current Certificate of Accreditation.

7.4. Non-conformances and Sanctions

7.4.1. Non-conformances

Audits are regularly undertaken to evaluate the effectiveness of implementation of ICA requirements. If, in the opinion of the auditor, there is evidence indicating that there has been a failure to meet one or more requirements, the auditor may raise a non-conformance Report (NCR). Actions required to address the non-conformance shall be discussed and recorded on the NCR.

If the integrity of the accreditation has been significantly compromised, the non-conformance may provide grounds for the suspension or cancellation of the accreditation, and prosecution.

7.4.2. Incident Reports

Incident Reports may be raised by interstate quarantine authorities to report the detection of a non-conformance in produce certified under this ICA arrangement. An investigation into the incident shall be conducted and findings reported back to the originator.

If the integrity of the accreditation has been significantly compromised, the incident may provide grounds for the suspension or cancellation of the accreditation, and prosecution.

7.4.3. Suspension and Cancellation

The DEPI may suspend or cancel an accreditation when an accredited business is found, for example, to have:

- obtained accreditation through the provision of false or misleading information;
- not paid fees owing to the DEPI;
- contravened an accreditation requirement that compromises the integrity of the arrangement; and/or
- not rectified a non-conformance.

Any action taken by the DEPI to suspend or cancel an accreditation shall be provided in writing to the Business. This shall also provide guidance on the lodgement of a written appeal requesting that the decision be reviewed.

7.4.4. Prosecution

Businesses found to be operating contrary to the Act may be liable for prosecution.

8. Records and Document Control

8.1. ICA System Records

The **Crusher** must retain:

- records on the origin of fruit in a consignment and its processing prior to dispatch; and
- copies of the Product Movement Declarations issued for each consignment.

The **Carrier** must retain:

- records on the transport of each consignment; and
- copies of the Product Movement Declarations issued for each consignment.

The **Winery** must retain:

- records on the receipt, processing and disposal of residues from consignments; and
- copies of the Product Movement Declarations issued for each consignment.

ICA system records shall be retained for a period of at least 24 months.

8.2. ICA System Documentation

The Business shall maintain the following documentation:

- a copy of the current Application for Accreditation;
- a current copy of this Operational Procedure; and
- a current Certificate of Accreditation.

9. Attachments

- Attachment 1_ Product Movement Declaration (PSF-014)
- Attachment 2 Documentation for the Crusher (PSF-017)
- Attachment 3 Documentation for the Carrier (PSF-018)
- Attachment 4 Documentation for the Winery (PSF-008)

Product Movement Declaration for Product Processed in a PIZ or PRZ and Transported to a PRZ or PEZ

Declaration Number

Declaration details (complete at crusher)

1.1 Primary processor – crusher consigning produce

Name		IP number	
Address			

1.2 Carrier

Carrier name		Receiving winery name	
Tanker registration		Receiving winery address	
IP Number		IP Number	

1.3 Consignment description

Product type	<input type="checkbox"/> Must <input type="checkbox"/> Fresh Juice	Quantity	
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1.4 Declaration - Crusher

I, as an Authorised Signatory of the accredited business that processed the grapes hereby declare that the grapes were grown in a PIZ PRZ (tick one) and processed into red must white must fresh juice (tick one) and that I have inspected the tanker and its valves are sealed and the exterior of the vehicle is free of soil and organic matter.

Authorised Signatory (print name)	Signature	Date / /
--	------------------	--------------------------------------

Receival details (complete at receiving winery)

2.1 Carrier - Deviation from approved route

Specify departure from route (if applicable)	Reasons
Approved by Transport Coordinator <input type="checkbox"/> Yes <input type="checkbox"/> No	Date / /

2.2 Spillage Report

Specify details of any spillage en route	Follow up action

2.3 Declaration - Carrier

I, as an Authorised Driver of the accredited business that carried this consignment, hereby declare that I either travelled by the approved route between the crusher and the winery, or by a modified route as indicated in section 2.1 and either no spillage occurred, or if it did details have been entered in section 2.2.

Truck Registration number Trailer(s) registration number.....

Authorised Driver (print name)	Signature	Date / /
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2.4 Declaration – Receiving winery

I, as an Authorised Signatory of the accredited business that received this consignment of red must white must Fresh Juice (tick one) hereby declare that the consignment will be processed as stipulated by the procedure ICA22.

Name of Authorised Signatory (print name)	Signature	Date / /
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DOCUMENTATION FOR CRUSHER

Wineries, in a PRZ or PEZ, must meet, or provide for equivalent, specifications to those listed below. The capacity of the facility to meet these specifications should be indicated on the plan of the facility.

Specifications

- The crusher shall provide, as well as normal grape processing and cooling equipment:
 - a) a hard stand tanker truck cleaning and inspection area, with a sealed surface, and wash down and drainage facilities.
 - b) a dedicated tanker loading area, with a hard stand (sealed) surface.
- A multipurpose loading, cleaning and inspection area is acceptable. It is desirable that roadways for tankers be sealed (or at least properly formed with a hard surface) and be separated from roadways adjacent to vineyards and roadways used for carrying grapes from vineyards to the crushing point.
- The grape receiving and processing area must be separated from the loading and dispatch point.
- Attention must be given to appropriate signs and notices to ensure proper use of designated areas, applicable speed limits, restricted access areas etc.

DOCUMENTATION FOR CARRIER

The Transport Company that carries the product from the PIZ or PRZ to a PRZ or PEZ must meet, or provide for equivalent specifications, to those listed below. The capability of the business and it's vehicles to meet these specifications should be clearly indicated.

Specifications

- Tanker trucks must be in good condition and readily cleanable inside and out.
- Tankers must be able to be sealed effectively to prevent leakage or spillage of must or juice.
- Valves should enable tankers to drain dry after emptying and cleaning.
- Trucks shall be equipped with an effective means of mobile communication such as CB radio or mobile phone, and should carry an alert folder, which contains procedures for action to take in the event of a spillage, and emergency contact phone numbers.

The following equipment owned by _____ will be used to carry product between the crusher and winery.

Prime Mover Registration	Method of Communication	Tanker Registration	Meets Specifications
			Yes/No

DOCUMENTATION FOR WINERY

Wineries, in a PRZ or PEZ, must meet, or provide for equivalent, specifications to those listed below. The capacity of the facility to meet these specifications should be indicated on the plan of the facility.

Specifications

- The winery should have a dedicated unloading area, separated from traffic to and from local vineyards (e.g. path of trucks delivering grapes to the winery). The unloading area should have a sealed, hard surface with wash down cleaning facilities and drainage to a safe area (i.e. with no risk of infesting vineyards).
- Appropriate signs should be used to indicate designated areas and roadways, and controlled no-entry areas.
- Wineries receiving juice or must from a PIZ or PRZ must dispose of waste in a manner to promote containment and prevention of cross-contamination. Waste Water systems must comply with EPA installation and operational guidelines for prevention of accidental spillage. Waste material other than water must be to an area at least 500m from any vineyard and remote from any traffic routes to and from vineyards. Engineered systems with design and operational measures to retain solids would allow for dispensation from the distance specifications.
- The winery is required to maintain adequate security of vessels to prevent accidental or malicious spillage of imported juice and must.