



MPI INTERNATIONAL TRAVEL REPORT

UNITED STATES OF AMERICA FRESH ONION (*ALLIUM CEPA*) PATHWAY ASSESSMENT

4-8 AUGUST 2014

Prepared for Fresh Produce Imports,
Plants, Food & Environment Directorate,
Regulation & Assurance Branch

August 2014

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ACKNOWLEDGEMENTS

The Ministry for Primary Industries (MPI) acknowledge and thank the officials of the United States Department of Agriculture (USDA) and the Animal and Plant Health Inspection Service (APHIS) who generously gave their time and co-operation during the fresh onion (*Allium cepa*) pathway assessment to inform MPI's review of the import health standard (IHS) for fresh onions from USA. In particular, thanks are extended to [REDACTED] (Assistant State Plant Health Director – California, USDA) and [REDACTED] (Trade Policy Specialist, Department of Agriculture, Oregon) for the organisation of the itinerary, co-ordination of meetings and visits to onion production sites and packhouse facilities in California and Oregon, respectively. In addition, MPI also specifically thank [REDACTED] (Assistant Trade Director – Export Programmes, USDA) for accompanying officials throughout the pathway assessment in both California and Oregon.

EXECUTIVE SUMMARY

The purpose of this visit was to assess the fresh onion (*Allium cepa*) export pathway in the USA production areas of the Central Valley of California and the Willamette Valley of Oregon, to gather pathway pest risk management information. The assessment was to include discussions with USDA officials and technical experts how the risk of *Delia antiqua*, *Pantoea ananatis* (and its vectoring arthropod *Frankliniella fusca*) are managed on the fresh onion export pathway. *D. antiqua* is known to be associated with fresh onion production in the USA, but has not been detected on the import pathways. Therefore, it was MPI's objective to understand how these regulated pests of concern are being managed effectively.

The aspects of the pathway assessment of relevance to MPI officials included observation of:

- Pre-export phytosanitary procedures in relation to productions sites, packhouses, storage facilities and any associated treatment facilities;
- Onion harvest, packing, grading and quality inspection processes;
- Traceability and phytosanitary security activities;
- USDA/APHIS phytosanitary inspection and certification procedures.

Key pathway assessment outcomes

Overall the observations and discussions during the pathway assessment provided a high level of confidence that the USA onion export pathway is based on a well established integrated pest management (IPM) best practices in both California and Oregon. MPI officials were told that practices in Oregon are also used by producers in Washington State, under the Pacific North West (PNW) IPM programme. These three states are the primary exporters of fresh onions to New Zealand.

The IPM best practices focus on prevention of infestation/infection at production sites, field monitoring by APHIS/state officials and certified third party pest control advisers (PCA) and targeted control activities on recommendation from PCAs as necessary. All chemical use on onion production sites is in compliance with APHIS and the Department of Pesticide Regulation pest management regulations, in addition to Global Good Agricultural Practices (Global GAP) used by the majority of growers. Pest risk management continues during harvest and post-harvest processing practices. During harvest and packhouse processing onions are sorted, graded and checked for any sign of infestation/infection or quality defects. Any onions detected with pests or disease will be excluded from export.

In particular, MPI officials discussed how the risk of *D. antiqua* and *P. ananatis* and its vectoring arthropod *F. fusca* are managed in onion production. Onion producers advised that because of *D. antiqua* biological characteristics, preventative IPM activities are used to commence production at sites free of infestation and

to protect early seedling growth (the most vulnerable stage) by use of seed treatments, field monitoring and early pesticide controls if detected. *P. ananatis* is not known to occur in any of the three major export states. However, during the production season if a PCA or APHIS/state official were to detect any field symptoms resembling *P. ananatis* or other unknown disease it would be sent for state laboratory identification. Confirmation of *P. ananatis* infection would then initiate USDA/APHIS investigation, response and eradication/management activities, in addition to regional, state, national and international notifications. The risk management of the vectoring arthropod *F. fusca* is controlled by the IPM practices of field monitoring, with pesticide controls if detected above threshold levels.

The USDA and APHIS phytosanitary inspection and certification procedures used to verify fresh onions for export from the USA are free from regulated pests of concern to New Zealand were discussed and demonstrated to MPI officials. It is USDA/APHIS policy to reject a consignment from export if a regulated pest of concern to an importing country is detected during phytosanitary inspection. USDA/APHIS phytosanitary procedures are based on international principles and conducted by certifying inspectors with a high level of knowledge (academic or practical life experience) and extensive training.

MPI officials found that the onion export system from production to post-harvest practices is effectively managing the risk of pests and diseases of concern to New Zealand. The pathway assessment visit provided MPI officials the opportunity to gather information to understand how these practices are undertaken and will be used to inform the USA onion IHS review.

BACKGROUND

New Zealand has been importing fresh onions from the since December 1997, mostly during New Zealand's counter-season from August to December annually. A mixture of red and yellow onions are imported from the USA, dependent on residual domestic storage supplies and consumer demand. Trade records since 2000 indicate onions are primarily imported from three western states – California, Oregon and Washington and occasionally from Florida and Nevada. Although IHSs are also in place for onions from Australia and Japan, these are not active import pathways.

The USA onion import pathway has been active for 17 years with very few issues. During this period there have been approximately 430 consignments imported, at a weight of between 8000-9000 tonne. This history of trade shows general compliance to the current phytosanitary measures (standard commercial production and pre-export phytosanitary inspection), with only intermittent interceptions of regulated pests. When regulated pests are intercepted at the New Zealand border, these are treated (fumigated with methyl bromide) prior to biosecurity clearance.

However, in 2009 MPI raised concern with the USDA regarding potential risk associated with regulated pests on the fresh onion import pathway from the USA to New Zealand – *Delia antiqua*, *Pantoea ananatis* and its vector *Frankliniella fusca*. MPI understands these pests are present in the USA, but may not be in the production areas that onions are currently exported from. To date these pests have not been intercepted on the USA onion import pathway. It is for this reason that MPI requested technical information from the USDA relating to these pests, to ensure current phytosanitary measures are providing an appropriate level of biosecurity risk management on the pathway. In addition, MPI requested the USDA allow a pathway assessment to be undertaken to observe and discuss pathway activities. The USDA has suggested that the optimal time for MPI's visit is at the beginning of August to view production areas in the Central Valley of California and the Willamette Valley of Oregon.

The information gathered during the pathway assurance visit will be used to inform the review of the USA onion IHS, in addition to pathway interception records and technical information provided by the USDA. MPI

will undergo public consultation on the re-drafted IHS once agreement has been reached with the USDA for the regulation of the aforementioned pests. Public consultation will take 30 days, followed by a period of 2-4 weeks when MPI will review and respond to any submissions received. If no significant technical objections are raised during consultation, MPI will issue the provisional IHS for a period of ten days before the final IHS is issued; trade cannot commence under the proposed amended IHS until it is issued as final.

ITINERARY

The visit itinerary included:

4 August 2014	<ul style="list-style-type: none"> - Travel to Kern County - California opening meeting at Kern County Ag Commissioner Office - Visit production site and packhouse A [REDACTED] - USDA/APHIS Federal and California phytosanitary system overview - Visit production site and packhouse B [REDACTED] - USDA/APHIS phytosanitary inspection demonstration - Travel back to Fresno
5 August 2014	<ul style="list-style-type: none"> - Travel back to Coalinga - Visit production site and packhouse C [REDACTED] - USDA/APHIS phytosanitary inspection demonstration - Visit production site and packhouse D [REDACTED] - Travel back to Fresno - California closing meeting at Fresno Ag Commissioner Office
6 August 2014	<ul style="list-style-type: none"> - Travel to Portland, Oregon - Discussion about trade policy with Department of Agriculture
7 August 2014	<ul style="list-style-type: none"> - Oregon opening meeting at Portland Department of Agriculture Office - USDA/APHIS Oregon phytosanitary system overview - Travel to Brooks - Visit production site and packhouse E [REDACTED] - [REDACTED] - USDA/APHIS phytosanitary inspection demonstration - Visit production site and storage facility F [REDACTED] - Travel to Salem - Oregon closing meeting at Salem Department of Agriculture Office - Travel back to Portland
8 August 2014	<ul style="list-style-type: none"> - Review of technical information provided by USDA/APHIS - Review of pathway assessment observations and information gathered - Pathway assessment report preparation

DEFINITIONS

[Note: terms such as non-compliance and corrective action are not applicable to pathway assurance visits as standards have not been finalised nor a workplan or an official assurance programme developed. Quality systems terms have been replaced with “actions” and “issues”. For consistency these terms will also be used for the review of treatment facility activities where appropriate.]

Term	Definition
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Critical actions	<p>Actions that must be undertaken before trade can commence because:</p> <ol style="list-style-type: none"> 1. Import of the commodity using current practise(s) would place New Zealand's human, animal or plant health, market access, official assurances, biosecurity, national good or MPI's credibility at risk. Where possible critical actions will be reported to the requesting country during a closing meeting and appropriate action(s) taken before trade can commence/continue. 2. It is requested by the country seeking market access e.g. assessment of equivalent requirements.
Issues	<p>An issue that demonstrates risk to the operation of a specification or set of specifications. It may be a specific issue or a system with multiple issues having a cumulative effect.</p> <p>Resolution of the issue will be required before trade can commence.</p>
Recommendations	<p>Recommendations are given to highlight areas of a system that require improvement (or clarification) even though an issue has not occurred.</p> <p>Recommendations must be considered by the requesting country when formulating actions for resolution.</p> <p>NB: A recommendation to change existing specifications does not constitute a change. Existing specifications must be complied with until any changes are officially promulgated.</p>

REFERENCES

- Import health standard (IHS) 152.02: Importation and clearance of fresh fruit and vegetables into New Zealand;
- Import health standard: Fresh onions (*Allium cepa*) from the United States of America;
- International Standard for Phytosanitary Measures

ENTRY MEETINGS

Entry meetings were conducted in California and Oregon with USDA/APHIS and associated officials. Entry meetings were held in California at the Kern County Agricultural Commissioner Office on 4 August 2014 and in Oregon at Portland Department of Agriculture Office on the 7 August 2014.

During the entry meetings MPI confirmed the itinerary and purpose of a pathway assessment in the process of reviewing an IHS. In addition, MPI confirmed the objectives of the pathway assessment were to observe and discuss the phytosanitary activities and operational procedures of the onion export pathway in the Central Valley of California and the Willamette Valley of Oregon, including the following aspects of the export system:

- USDA/APHIS regulatory framework (registration, traceability, product security);
- USDA/APHIS phytosanitary system (inspection and certification);
- USA onion export pathway overview (end-to-end);
- Observe/discuss 'standard commercial production practices' and management of pests (*D. antiqua*, *P. ananatis* and its vector *F. fusca*, in addition to other regulated pests associated with the pathway);
- Observe/discuss 'standard commercial production practices' at production sites;
- Observe/discuss 'standard commercial production practices' with packhouses;
- Observe/discuss 'standard commercial production practices' with storage facilities (and treatment facilities if appropriate).

PATHWAY ASSESSMENT FINDINGS

SUMMARY OF CRITICAL ACTIONS AND ISSUES

Nil

SUMMARY OF RECOMMENDATIONS

Recommendation 1: MPI to seek pest risk management information from the USDA used in USA states that export fresh onions to New Zealand.

Recommendation 2: MPI will use the observations of the current export system made during the pathway assessment to inform the review of import requirements.

Recommendation 3: MPI to propose any changes to the current import requirements for fresh onions from the USA, followed by engagement of relevant New Zealand stakeholders and public consultation for an IHS amendment.

ACTIONS	SIGN-OFF DATE/AUDITOR/COMMENTS
1. MPI to seek pest risk management information from the USDA used in US states that export fresh onions to New Zealand	07/08/2014 Information provided by USDA for Oregon and PNW pest management
2. MPI will use the observations of the current export system made during pathway assessment to inform the review of import requirements.	IHS review included in the 2014/15 Fresh Produce Imports work programme.
3. MPI to propose any changes to the current import requirements for fresh onions from the USA, followed by engagement of relevant New Zealand stakeholders and public consultation any necessary IHS amendments.	IHS review included in the 2014/15 Fresh Produce Imports work programme.

PRODUCTION SITES

Fresh onions can be produced throughout the USA at varying seasonal periods dependent on climatic requirements of the onion variety e.g. short-intermediate-long day onions. The majority of the fresh onions grown for export to New Zealand are produced in California, Oregon and Washington, but also occasional exports are received from Nevada and Florida. Both conventional and organic growers currently export fresh onions to New Zealand.

Pre-planting activities

Onion seed used to grow fresh for market onions is produced throughout the USA under a seed-to-seed system (two growing seasons to complete the seed to seed cycle). Under the USDA/APHIS seed certification scheme, onion seed is disease indexed as well as surveyed by state accredited certifying officer (ACO) during growth for symptoms of associated disease problems. Detection of any suspected disease is sent to the state diagnostic laboratory for identification.

Once onion seed is certified free from disease it is then treated with insecticide and fungicides to protect against pests and disease. However, use of treated seed is at the discretion of the grower, dependent on their status as conventional or organic.

Production sites for growth of fresh onions are selected on the basis of previous land use, surrounding environment and water availability, it is general practice to rotate land use between different crops to

minimise the accumulation of pest, disease and weeds build up. Growers MPI officials spoke to use a rotation patterns of between 2-4 to 6-10 years.

In addition to ensuring a production site does not have previous pest or disease pressures, a site is prepared using a variety of cultural practices before planting. These include the removal or control of weeds at the site, checking drainage is appropriate and the organic matter levels and testing and preparation of soil to ensure appropriate nutrient levels.

Planting or seedling transplant

Both fresh and storage onions are planted throughout the USA, in the spring/summer and fall/winter respectively. Onion varieties vary between states due to suitability of climatic and environmental conditions. Most commonly, red and white onions are grown for the fresh market and yellow onions for storage.

In California onion seeds rather than seedling transplants are used. Onion seeds are air and belt planted between December and January into sandy loam soil to a depth of $\frac{1}{4}$ to $\frac{3}{4}$ inch. A sprinkler system is used to irrigate at the beginning of the season until germination and then will be changed to drip tape irrigation.

In Oregon both seeds and seedling transplants are used, dependent on the onion variety, season conditions and grower preference. Plantings usually occur between February and April, dependent on use of seed or seedlings. One grower MPI officials spoke to out-sourced his seedling growing, sending his own seed away and receiving 3-4 leaf plants back for transplant at the optimal time.

Pest and disease monitoring

During onion production, sites are monitored for pests and diseases as part of the state wide IPM programmes adopted by growers. In addition to following IPM monitoring for prevention of crop infestation/infection, several growers follow Global GAP which has similar (if not more stringent) monitoring requirements. Crop monitoring is conducted by growers and their technical company staff in addition to state registered PCAs and APHIS/state ACO field inspection prior to harvest to confirm freedom from target pests and diseases. On any day a PCA will monitor for general plant health, field weaknesses, irrigation issues, weather and environmental damage and pest and disease presence and signs/symptoms.

a) *Delia antiqua* monitoring

While no specific monitoring for *Delia antiqua* in onion fields has been developed, infestation often follows cool and wet conditions and is observed by slow seedling emergence and development as early signs of infestation, which can be verified by pulling up plants to inspect for maggot presence. PCAs monitor for *D. antiqua* most vigilantly at the beginning of a season when seedlings are most susceptible to infestation. Population estimates can also be made from adult fly activity obtained from the use of yellow sticky traps and through observations during crop walk through.

b) *Frankliniella fusca* and other thrips monitoring

F. fusca has not been recorded as present in Oregon, but is present in California, while *Thrips tabaci* is present in both states. Thrips are generally easy to monitor through random sampling of plants to determine presence and count. Thrips damage can be seen as scarring (silvery appearance) from surface rasping caused by feeding, to determine population levels thrips are checked for in leaf folds, protected inner leaves near the bulb and when levels are very high, they can be found externally on leaf surfaces. Plants, leaves and bulbs are pulled apart and inspected using a hand lens for presence of different lifestages. This technique is used for at least five plants from four different areas of the field.

c) *Pantoea ananatis*

Although *Pantoea ananatis* has never been detected in CA, OR or WA, PCAs monitor for any plant health issues, whether common, infrequent or unknown. Symptoms that would be associated with *P. ananatis*

infection could include blighted leaves, bleached and rotted seed stalks and bulb rot. As is PCA best practice, on detection of disease symptoms a sample would be taken and sent to the state pathologist for identification.

Confirmation of *P. ananatis* infection or any other new pest or disease of significance would initiate USDA/APHIS investigation, response and eradication/management activities, in addition to regional, state, national and international notifications, as necessary.

Integrated pest management activities

California and Oregon onion growers follow IPM programme guidelines to grow onions, which are accessible from state websites and updated by university academic and technical staff as necessary. Extension services available to facilitate IPM practices are employed at state and county authorities under the Farm Adviser scheme.

In general, IPM practices are based on the concept of prevention practices, monitoring for pest presence and economic damage and control activities where appropriate. Prevention practices and pest monitoring are discussed above and are used in addition to standard biological, cultural and chemical control practices. These involve crop husbandry that sustains levels of natural enemies in a crop, appropriate application of nutrients and irrigation (jointly referred to as chemigation), crop hygiene and equipment sanitation and an awareness of environmental conditions to pest association and pressures to forecast potential pest problems.

Upon detection of a pest above economic threshold a PCA will issue a 'Production use recommendation' if chemical controls are required, this is lodged with the state authority for pesticide regulation and includes information such as target crop and pest, chemical application rate, withholding period and buffer zones. Following application of the recommended chemical treatment, a use report must be filed within seven working days.

Outlined below is the management for specific pests of concern MPI officials discussed with growers.

a) *D. antiqua*

Management of *D. antiqua* is primarily achieved through preventative IPM activities such as those previously discussed – seed treatments, crop rotations and ensuring breakdown of organic matter at a production site. If detected, insecticides can be used but may have limited effectiveness due to the association of *D. antiqua* with bulbs below ground. This being said, most growers MPI officials spoke to advised if *D. antiqua* is detected in a crop it will be excluded from export.

b) *F. fusca* and other thrips

Thrips are known to thrive in hot dry conditions, therefore they are more of a pest in California where these climatic conditions are present than in Oregon that has lower temperatures and higher levels of rainfall. If thrips populations are detected to exceed economic thresholds, chemical control is recommended. Approved chemicals are applied as per label rates and are used from a range of chemical families to avoid pesticide resistance developing.

c) *P. ananatis*

P. ananatis has not been detected in California or Oregon. However, IPM practices to use if necessary are also largely focused on preventative activities such as crop rotations to ensure there is not a pre-existing disease reservoir. In addition, cultural practices that reduce the likelihood of infection include appropriate use of irrigation, especially if overhead is used as opposed to a drip system. Similarly, onions should only be harvested when tops are mature to ensure quick drying of tops. As previously discussed, if *P. ananatis* was detected and identified in onion production by a PCA ; or an ACO, it would be subject to county/state response activities.

Harvest

Prior to onion harvest irrigation is strictly controlled to allow the tops to dry down. When onions are mature and ready to have, the majority of tops will have naturally fallen down (see Plate 1 and 2). Growers of onions choose to harvest either by hand or mechanically, dependent on the onion variety. For hand harvest onions are undercut, pulled, clipped and placed into sacks for drying in the field (see Plate 3). While mechanical harvest involves topping the onions with a mower, followed by lifting and windrowing to allow the onions to cure. Onions from both methods of harvesting are put into sacks to be taken for packing. Generally, white and red onions are hand harvested in California and Oregon and yellows are mechanically harvested.



Plate 1: Mature red onions.



Plate 2: Mature yellow onions, lifted.



Plate 3: Harvested red onions drying.

PACKHOUSE ACTIVITIES

Packhouses in California and Oregon varied in their design and layout to accommodate for the variance in climatic conditions between the states and product dispatch approaches (pack and ship vs. pack and store). In California, open plan packhouses are generally used due to dry heat and the pack and ship approach. Conversely in Oregon, packhouses are enclosed and have accompanying storage capacity to pack and store. In both states, onions are pre-ordered by customers to be packed on demand, resulting in minimal storage.

Onion receival procedures

Packhouses use an incoming and outgoing traceability systems to record onion receival and dispatch. Traceability systems include use of hard copy spreadsheets and wall planners (see Plate 4 and 5) which are entered into packhouse databases to enable traceability during processing in the packhouse and reporting functions.



Plate 4: Receival spreadsheet.



Plate 5: Receival wall planner.

On arrival trucks are weighed in for onion weight and out to calculate any spoilage. Received onions have their production site information loaded into the packhouse traceability system, including harvest date, site and/or field and supervisor and are allocated an internal barcoded traceability label for use during packhouse processing. This barcode will record packing date/ commodity/ variety/ field site/ size/ label/ colour/ quantity/ weight/packing supervisor as the onions move through the packhouse.

Sorting and grading

Onions arrive in open v-shaped trailers transported from the field (see Plate 6), trailers are cleaned between field runs. Onions enter the packhouse processing line by first going through a topper machine to cut onion tops and tails to commodity descriptions (see Plate 7).



Plate 6: Onions unloaded from trailers.



Plate 7: Onion topper machine.

On the processing line staff manually grading of onions for quality, doubles, un-topped onions, seconds, defects and pest and disease infestation/infection (see Plate 8 and 9). Staff have training in pest detection and alert a supervisor on detection of pests or disease of concern; packing staff are semi-permanent and contracted seasonal workers. Leading hands take quality samples three times a day during processing for quality inspection and pest infestation/infection; samples are taken from the back of the trailer on arrival and after processing. Any detection of pests on organic onions results in rejection of the line.



Plate 8: Staff rough sorting of onions.



Plate 9: Staff sorting of onions.

Onions are generally processed by size for bagging. Sizing machines (rollers) are used to eliminate small onions and any other debris (see Plate 10 and 11). Bulbs pass over brushes, excess onion leaves and skin fall away; all onion waste goes to cattle.



Plate 10: Sizing rollers.



Plate 11: Sized and grade onions.

Packing and storage

Packhouses are operated in alignment with good handling practices and company standard operating procedures (SOP). Onions are packed based on variety and size (see Plate 12 and 13) ordered by the customer and usually shipped the same day. Only new, clean and inert or synthetic material is to be used for packing of onions, which is stored separately to prevent contamination.



Plate 12: Onion packed into bags.



Plate 13: Different size packing areas.

Packed onions are labelled with traceability information before dispatch and kept segregated until loading to prevent product re-infestation (see Plate 14 and 15).



Plate 14: Segregated onions.



Plate 15: Labelled for traceability.

When storage facilities are used, which occasionally occurs in Oregon, they are secured facilities that also operate under SOPs to maintain the integrity of their stored product until shipment. Storage facilities operate on the principles of product segregation for security to prevent pest infestation or product substitution prior to phytosanitary certification.

Onion storage is usually for a minimal period; however they can be kept for up to a year in optimal conditions. Generally, onions are stored at 36, 45 and 70°F, depending on storage length and mode of transport.

Packhouse hygiene

Packhouse hygiene and sanitation is regulated by company specific SOPs. Employee hygiene and safety signage features throughout the facility in addition to regular meetings where updates are provided for any changing circumstances. Logs of staff hygiene practices and equipment hygiene and maintenance were used by all packhouses MPI officials visited.

Packhouse cleaning is undertaken after each shift or between runs if onions are sourced from different geographic locations or growers. Most sanitation practices were outsourced by packhouse companies,

however some are undertaken in-house. Between seasons packhouses, equipment and any associated storage areas are completely emptied for sanitation. Similar to packhouse sanitation, pest control activities are outsourced to companies for control of insects, rodents and other contaminating pests.

PHYTOSANITARY PROCEDURES

Phytosanitary export system

In USA the National Plant Protection Organisation (NPPO) with regulatory authority over phytosanitary inspection and certification of fresh onions for export to New Zealand is the USDA and their designated operational agency APHIS - Plant Protection and Quarantine (PPQ) unit. However, USDA/APHIS/PPQ does not regulate the exportation of commodities, but provides a service for commodities that are eligible for certification by assisting exporters to meet the requirements of importing countries. Export conditions are held in the Phytosanitary Export Database (PExD), specifying import requirements that must be met to satisfy foreign trading partners.

While APHIS (and PPQ) federally administers export certification programmes, there is a Memorandum of Understanding (MOU) with USA states and counties that permits authorised certifying officials (ACOs) to inspect, verify and certify plant commodities for export. In large states such as California ACOs operate at the county level e.g. Fresno ACOs, while in Oregon ACOs operate at the state level through the Oregon Department of Agriculture. Regardless of at what level (state or county) an ACO operates, they are required to meet the same minimum requirements to meet USDA/APHIS accreditation, including higher academic qualifications or equivalent professional employment experience, quarantine training, examinations, auditing and re-fresher training. In addition to formal quarantine training, ACOs are continually trained by county and state technical experts (e.g. university IPM extension services and laboratory entomologists and pathologists) in pest detection and recognition.

Production sites growing fresh onions for export to New Zealand aren't registered by USDA/APHIS/PPQ but are required to comply with chemical use legislation and the import requirements of the country of export to, which is verified by the ACO prior to phytosanitary certification. Chemical use is regulated by use of 'Notice of Intent' that is submitted to a state authority such as the California Department of Pesticide Regulation (DPR) before pesticide application and followed up by a 'Use Report'. These records are available to ACOs for verification of control activities if necessary.

Throughout production, packing and storage, records are kept specifying all activities. These records provide traceability of onions throughout the onion export system for phytosanitary and food safety purposes, that are auditable by USDA/APHIS and state authorities when necessary.

Phytosanitary inspection and certification

MPI observed three phytosanitary inspection demonstrations during the pathway assessment, demonstrating the procedures an ACO follows to verify import requirements have been met prior to phytosanitary certification.

Prior to phytosanitary inspection an ACO will access the PExD to confirm the import requirements for the country of export destination, this information will include what the inspection sampling rate, pests and diseases of concern, contamination thresholds and any other relevant details. At the inspections MPI observed each ACO held the New Zealand import requirements and reference material for pests and diseases of concern.

In general, an ACO will look for disease symptoms and signs of pest infestation, concentrating on the neck and base of the onion. A knife and hand lens is used by the ACO for closer inspection of suspect marks, with an onion cut to investigate internal infection/infestation if necessary. Any live or dead pests detected are collected in specimen jars for identification, being sent to an approved entomologist or pathologist as

necessary. A consignment will be held until an identification confirmation is received; if the pest is regulated to New Zealand the consignment is rejected.



Plate 16: APHIS/PPQ inspection area.



Plate 17: APHIS/PPQ inspection area.



Plate 18: APHIS/PPQ inspection area.



Plate 19: Inspection table with cut onions and waste.

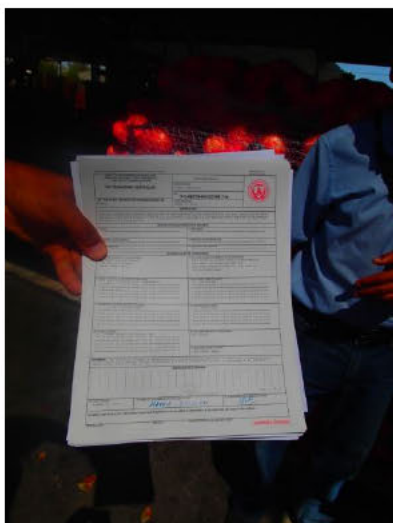
In addition to inspection for pests and disease, ACOs also check onion waste (excess skins) for infestation and ensure soil levels do not exceed New Zealand's tolerance threshold.



Plate 20: Inspection table with onions.



Plate 21: Inspection of onion waste.



Following phytosanitary inspection the ACO will complete a shed report to document the amount of onions inspected, detection of pests or disease, production destination and whether the consignment is passable or not. When an ACO has verified import requirements have been met a phytosanitary certificate can be generated on site or at a country/state office.

Plate 22: Sample phytosanitary certificate.

EXIT MEETINGS

Exit meetings were conducted in California and Oregon with USDA/APHIS and associated officials. Exit meetings were held in California at the Fresno Agricultural Commissioner Office on 5 August 2014 and Portland at the Salem Department of Agriculture Office on the 7 August 2014. Summary feedback was given to US officials of observations and discussions conducted at sites visited.