

附件11、Quarantine treatments import and export with Phosphine



SAG
Ministerio de
Agricultura

Gobierno de Chile

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Regulation in Chile for Quarantine Treatment Resolución 1.294/2019



RESUELVO:

RESOLUCIÓN EXENTA No: 1294/2019

APRUEBA REGLAMENTO ESPECÍFICO PARA LA EJECUCIÓN DE TRATAMIENTOS O MEDIDAS FITOSANITARIAS E INSTRUCTIVOS TÉCNICOS QUE INDICA Y DEROGA RESOLUCIÓN EXENTA N° 2.664 DE 2008 DE LA DIRECCIÓN NACIONAL DEL SAG.

Santiago, 15/ 02/ 2019

VISTOS:

Lo dispuesto en la Ley No 18.755, Orgánica del Servicio Agrícola y Ganadero; la Ley No 18.575, Orgánica Constitucional sobre Bases Generales de la Administración del Estado; Ley N° 19.880 de 2003, que establece Bases de los Procedimientos Administrativos que rigen los Actos de los Órganos de la Administración del Estado; el Decreto Supremo No 112 de 2018, del Ministerio de Agricultura; la Resolución Exenta No 1.600 de 2008, de la Contraloría General de la República; la Resolución Exenta No 8.078 de 2017, que norma el Sistema Nacional de Autorización de Terceros, la Resolución Exenta No 2.664 de 2008, que aprueba el Reglamento Específico para la acreditación de terceros en la ejecución de tratamientos fitosanitarios para artículos reglamentados de importación y tránsito; ambas de este Servicio; y las facultades que invisto como Director Nacional de la Institución:

CONSIDERANDO:

- Que, el Servicio Agrícola y Ganadero tiene por objeto contribuir al desarrollo agropecuario del país, mediante la protección, mantención e incremento de la salud animal y vegetal; la protección y conservación de los recursos naturales renovables que inciden en el ámbito de la producción agropecuaria del país y el control de insumos y productos agropecuarios sujetos a regulación en normas legales y reglamentarias.
- Que, la Ley N° 18.755 establece en su artículo 3° letra e) que corresponderá al Servicio ejecutar directa o indirectamente, en forma subsidiaria, las acciones destinadas a cumplir las medidas para prevenir, controlar, combatir y erradicar plagas o enfermedades que, a su juicio, por su peligrosidad o magnitud, pueden incidir en forma importante en la producción silvoagropecuaria nacional.
- Que en el mismo cuerpo legal señalado precedentemente en su artículo 3° letra o) establece que corresponderá al Servicio prestar asistencia técnica directa o indirecta y servicios gratuitos u onerosos, en conformidad con sus programas y cobrar las tarifas y derechos que le corresponde percibir por sus actuaciones.
- Que la Resolución Exenta No 8.078, de fecha 20 de diciembre de 2017, establece que la autorización de terceros estará circunscrita sólo para aquellas actividades contempladas en Reglamentos Específicos de Autorización emanados de la Dirección Nacional del Servicio.
- Que mediante Resolución Exenta No 2.664 de 2008, se aprobó el "Reglamento Específico para la acreditación de terceros en la ejecución de tratamientos fitosanitarios para artículos reglamentados de importación y tránsito", código REA-AGR-06-v01.
- Que según se establece en las cláusulas de los convenios suscritos entre el SAG y los terceros autorizados, el Servicio podrá modificar y actualizar los instructivos técnicos, y que los terceros autorizados se obligan a ajustar su accionar de acuerdo a las nuevas definiciones.
- Que durante el tiempo de aplicación del señalado reglamento, ha surgido la necesidad de actualizar el documento para incorporar los tratamientos de exportación y nuevas medidas fitosanitarias.
- Que debido a la incorporación de nuevos tratamientos y/o medidas fitosanitarias, es de toda conveniencia elaborar un instructivo técnico para cada uno de ellos.

1. **Apruébanse** los siguientes documentos que forman parte integrante de la presente resolución:

Reglamento Específico para la ejecución de tratamientos o medidas fitosanitarias, código D-ATR- AAT-048
Instructivo técnico para la fumigación con bromuro de metilo, código D-ATR- AAT-049
Instructivo técnico para la fumigación con fosfina, código D-ATR- AAT-050

Instructivo técnico para la desinfección y/o desinfección, código D-ATR- AAT-051 Instructivo técnico para la ejecución de destrucciones, código D-ATR- AAT-052 Instructivo técnico para la ejecución de tratamientos térmicos, código D-ATR- AAT-053

2. **Derógase** la Resolución Exenta N° 2.664 de 2008, que aprueba el Reglamento Específico para la acreditación de terceros en la ejecución de tratamientos fitosanitarios para artículos reglamentados de importación y tránsito", código REA-AGR-06-v01.

- El citado reglamento específico y los instructivos entrarán en vigencia a contar de la fecha de publicación de la presente resolución en el Diario Oficial.
- Tanto los terceros con autorización vigente como los terceros reconocidos por el Servicio a través de otros medios distintos al Sistema Nacional de Autorización de Terceros, para ejecutar las actividades normadas por la presente resolución, deberán ajustar su accionar de acuerdo al texto del reglamento específico e instructivos técnicos aprobados por el presente documento, con todas sus modificaciones, dentro de un plazo máximo de ciento ochenta (180) días corridos, a contar de la entrada en vigencia de la presente resolución.
- La presente resolución, el reglamento específico y los instructivos técnicos, estarán a disposición de los usuarios en el sitio Web del Servicio Agrícola y Ganadero (www.sag.cl), conforme a lo dispuesto en el artículo 7, letra j) de la Ley N° 20.285 sobre acceso a la Información Pública.

ANÓTESE, COMUNIQUESE Y PUBLÍQUESE

HORACIO BÓRQUEZ CONTI

DIRECTOR NACIONAL SERVICIO AGRÍCOLA Y GANADERO

Anexos

Nombre	Tipo	Archivo	Copias	Hojas
IT bromuro	Digital			
IT fosfina	Digital			
IT desinfección y/o desinfección	Digital			
IT destrucciones	Digital			
IT tratamientos térmicos	Digital			
Reglamento tratamientos o medidas fitosanitarias	Digital			

OCI/VBM/MRR/RRF/RRF



https://www.sag.gob.cl/ambitos-de-accion/ejecucion-de-tratamientos-o-medidas-fitosanitarias

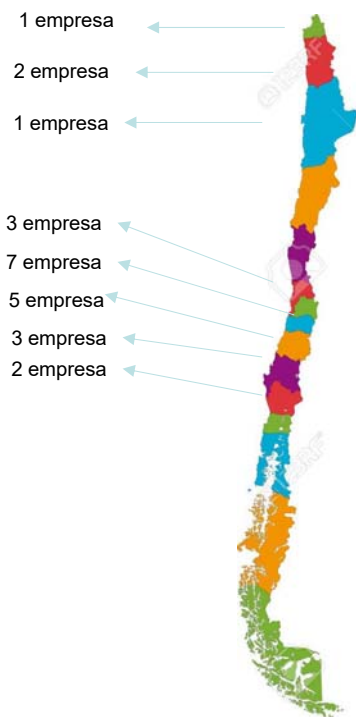


Empresas aplicadoras de Fosfina en Chile

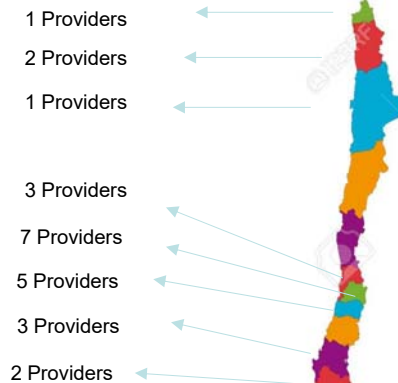
Phytosanitary Treatment Companies in Chile

24 empresas a nivel nacional

24 phosphine companies in Chile



Republic of Chile



Republic of Chile





Características de la fosfina

Characteristics of phosphine

PROPIEDADES DE LA FOSFINA			Phosphine		
Fórmula	PH ₃ (Gas ácido inorgánico)		Fórmula	PH ₃	Organic acid
Densidad relativa del gas	21% más pesado que el aire	21%	Relative Density of gas	21% heavier than air	
Punto de explosión mínimo	1,79% / 17.900 ppm	Auto ignición/Inflamación	Minimal explosion point	1,79% / 17.900 ppm	Auto ignition / inflammation
Olor	Inodoro	Bajo umbral 0,14 ppm	Odor	Inodoro	low threshold 0,14 ppm
Olor	Suave olor a ajo	Sobre umbral 0,14 ppm	Odor	Gentle smell garlic	Over threshold 0,14 ppm

LD₅₀ oral 9.1 mg/Kg
190 ppm/1 hora



Fuentes que generan fosfina

Sources that generate phosphine

La fosfina en pequeñas cantidades se produce naturalmente producto de la degradación de la materia orgánica, en forma sintética ésta se genera de la reacción de hidrólisis que sufren ciertos fosfuros metálicos (aluminio o magnesio), cuando estos entran en contacto con la humedad ambiente.

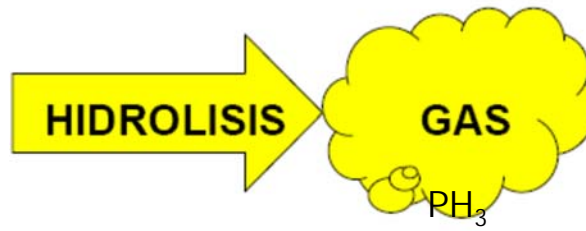
Phosphine in small quantities is naturally produced as a result of the degradation of organic matter. Synthetically, phosphine is generated from the hydrolysis reaction suffered by certain metal phosphides (aluminum or magnesium) when they come into contact with ambient humidity.

PRESENTACIÓN	g tableta /placa	g fosfina liberada	PRESENTACIÓN	PRESENTACIÓN	g tablet / phosphine g plate released	PRESENTACIÓN	PRESENTACIÓN
Tabletas planas y redondas	3	1	RT 333 - T 480	Flat and round tablets	3	1	RT 333 - T 480
Pellets	0,6	0,2	P 1660	Pellets	0,6	0,2	P 1660
Placas	117	33	Placa Degesch	Plates	117	33	Placa Degesch
Fosfina Gaseosa 97% Fosfuro de hidrogeno	1	658 ppm	Bombona 22 kg	Phosphine gas	1	658 ppm	Bombona 22 kg





SÓLIDO



Oxihidrato de Al



Condiciones que Favorecen la Reacción

Condiciones ambientales que favorecen reacción de Hidrólisis

T° altas favorecen la reacción de fosfina

H° altas favorecen la reacción

La reacción de hidrólisis depende de las condiciones del medio

Conditions that favor the reaction of phosphine

- Environmental conditions that favor Hydrolysis reaction
- High temperatures favor the phosphine reaction
- H ° high favor the reaction
- The hydrolysis reaction depends on the conditions of the medium

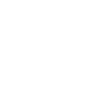


Factores importantes a considerar

- La fosfina se mueve por difusión.
- A mayor temperatura, mayor velocidad de difusión.
- Sobre los 10 °C., y después de 48 horas de exposición, ya se ha completado más del 90% de la hidrólisis.
- No fumigar con temperaturas bajo los 10 °C. Si no se considera la adopción de:
 - Sistema de Recirculación de mezcla gas – aire
 - Extensión Tiempo exposición (TE)
 - Turbo calefactores, ó
 - Inyectar Fosfina pura (97%)

Important factors to consider

- Phosphine moves by diffusion.
- The higher the temperature, the faster the diffusion speed.
- Above 10 °C, and after 48 hours of exposure, more than 90% of the hydrolysis has been completed.
- Do not fumigate with temperatures below 10 °C. If the adoption of:
 - Gas-air mixture recirculation system
 - Extension Exposure time (TE)
 - Turbo heaters, or
 - Inject pure Phosphine (97%)



- Temperaturas bajo los 5° C., afectan la velocidad de difusión del gas; se debe utilizar un ventilador para homogenizar.
- Una fumigación se debe suspender, cuando no se superen los 5° C. al utilizar Fosfuros metálicos.
- También considerar que a menor temperatura, los insectos tienen un metabolismo bajo(menor tasa de respiración), por lo tanto, se debe aumentar el tiempo de exposición.
- Se deben realizar ensayos para adoptar métodos alternativos cuando la temperatura desciende de los 10°C.

- Temperatures below 5° C. affect the speed of gas diffusion; A fan must be used to homogenize.
- A fumigation must be suspended when the 5° C is not exceeded when using metal Phosphides.
- Also consider that at lower temperatures, insects have a low metabolism (lower respiration rate), therefore, the exposure time must be increased.
- Tests should be carried out to adopt alternative methods when the temperature drops below 10°C.



EFICIENCIA Y SEGURIDAD EN FUMIGACIONES

Condiciones fumigación exitosa

- Concentración (ppm, gr/m³ o mg/Kg) (directamente relacionada con la dosis de fumigante y el volumen del contenedor, cámara o cobertor)
- Hermeticidad (ambientes confinados para contener el gas)
- Tiempo de exposición (TE) (exposición al gas, equivalente a C x T)



EFFICIENCY AND SAFETY IN FUMIGATIONS

Successful fumigation conditions

- Concentration (ppm, gr / m³ or mg / Kg) (directly related to the dose of fumigant and volume, container, chamber or tarpaulin)
- Air tightness (confined environments to contain gas)
- Exposure time (TE) (exposure to gas, equivalent to C x T)




Condiciones fumigación exitosa

- **El tiempo de exposición:** Es el tiempo mínimo de exposición al gas fosfina, en forma continua, en donde se tiene la certeza de controlar todos los estados de un insecto o plaga.

Successful fumigation conditions

Exposure time:

It is the minimum exposure time to phosphine gas, continuously, where you have the certainty to control all the states of an insect or pest.

Dosis letales de PH ₃ para distintos organismos		
Organismo	Tiempo exposición	
Insectos	300 ppm x 72 horas mínimo	
Ácaros	300 ppm x 120 – 240 horas	
Mamíferos	400 ppm x 30 minutos 2000 ppm (muerte rápida)	

En seres humanos TLV-TWA:
Valor límite de exposición al gas: 0,1 ppm



EQUIPOS DE PROTECCIÓN PERSONAL (EPP)

PERSONAL PROTECTION EQUIPMENT (EPP)

- Como la fosfina es un gas, se debe bloquear su principal vía de acceso al organismo: **La vía respiratoria.**
- El filtro debe ser al Adecuado para el gas a filtrar (Gas ácido inorgánico)

- Since phosphine is a gas, its main access route to the organism must be blocked: the respiratory route.
- The filter must be suitable for the gas to be filtered (Inorganic acid gas)

autonomous breathing equipment

Filtro AUER 88 B/ST



Máscara Full Face con Filtro para gases



Mínimo 2 personas



Sobre 15 ppm

EQUIPOS DE MEDICIÓN DE PH3



Existen básicamente tres tipos de equipos capaces de medir gases, en forma práctica.

There are basically three types of equipment able to measure gases, in a practical way.

1.- Tubos detectores de gas fosfina: a base de sal de plata, que se colorea en presencia del gas fosfina.

1.- Phosphine gas detector tubes: based on silver salt, which was colored in the presence of phosphine gas.

- Rango Bajo (n:10): 1 a 50 ppm.
- Rango Alto (n: 1) : 50 a 2.000 ppm.

- Low range (n: 10): 1 to 50 ppm.
- High range (n: 1): 50 to 2,000 ppm.

Vol: 100 ml





EQUIPOS DE MEDICIÓN DE PH3

Detector Uniphos:

- Celda electroquímica que detecta la presencia del gas al instante.
- Capaz de medir de 1 a 2.000 ppm de gas.
- Se utiliza para detectar fosfina ambiental o para advertir presencia de fugas de gas en sellos y sistemas de inyección y recirculación de gas.

Uniphos Detector:

- Electrochemical cell that detects the presence of gas instantly.
- Able to measure from 1 to 2,000 ppm of gas.
- It is used to detect environmental phosphine or to notice the presence of gas leaks in seals and injection systems and gas recirculation.

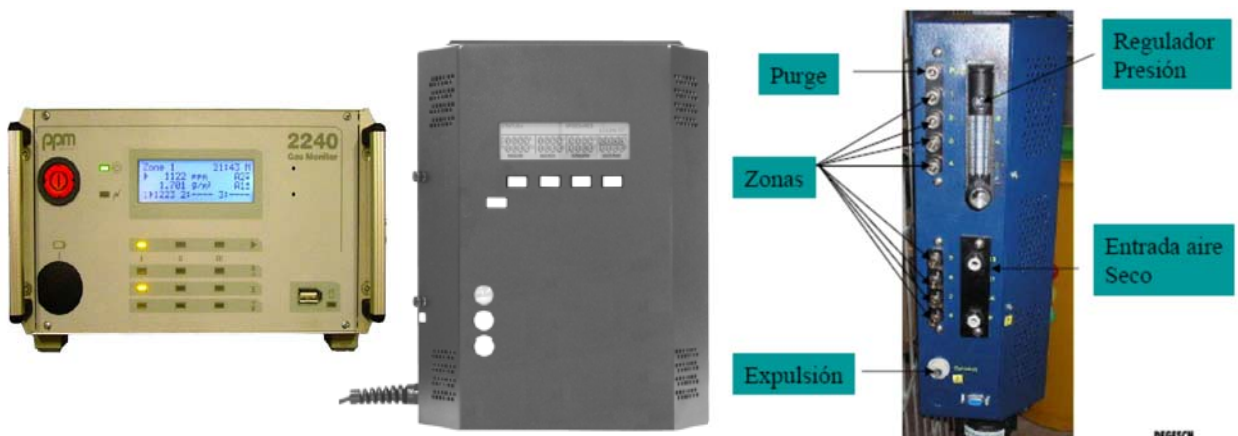


Monitor continuo fotoionizador:

Celda infrarrojo que a través de interferencias detecta la presencia del gas y la traduce en concentración (ppm), respecto del aire patrón

Continuous photonizer monitor:

Infrared cell that detects the presence of gas through interference and translates it into concentration (ppm), compared to the air pattern



Principales problemas con la fosfina:

- Tratamientos largos en comparación al bromuro de metilo y la irradiación, (Europa utiliza 21 días para el control de Gorgojo Kaprha)
- Incompatibilidad con ciertos metales (cobre y sus aleaciones).
- Las presentaciones sólidas no pueden ser aplicados con temperaturas bajo los 10°C, en cambio la presentación gaseosa puede ser aplicada hasta 0°C.
- Se requieren bajas concentraciones para producirse una intoxicación (sobre 1 ppm), legislación en Chile no permite exponerse sobre los 0,26 ppm de fosfina en 8 horas y 1 ppm en 15 minutos

Main problems with phosphine:

- Long treatments compared to methyl bromide and irradiation, (Europe uses 21 days to control weevil Kaprha)
- Incompatibility with certain metals (copper and its alloys).
- Solid presentations can not be applied at temperatures below 10°C, whereas the gaseous presentation can be applied up to 0°C.
- Low concentrations are required to produce intoxication (over 1 ppm), legislation in Chile does not allow exposure to 0.26 ppm of phosphine in 8 hours and 1 ppm in 15 minutes

Gracias

Thank



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附件12、Alternative Treatments - Sulfuryl Fluoride (SF)

International Cargo
Cooperative Biosecurity
Arrangement (ICCBA)

Alternative Treatments -
Sulfuryl Fluoride (SF)



Nathan Reid

April 2019



Australian Government
Department of Agriculture
and Water Resources

Background

First introduced by Dow Agro Sciences as Vikane in 1961, SF is broad-spectrum fumigant for control of all insect pest life stages

SF is sold as Vikane or ProFume globally by Douglas Products and as Zythor by Ensystem in the United States



ZYTHOR

Background

Since 1961, SF has been used to control wood destroying insects and structural pests in:

- Homes
- Museums / historical buildings
- Storage structures
- Food handling facilities
- Temporary & permanent fumigation chambers

It is an inorganic, non-flammable, odourless, colourless, non-corrosive gas

It provides high penetration, low sorption and rapid desorption

Effectiveness

At the correct rates, SF has demonstrated effectiveness on a wide spectrum of key quarantine pests

In 2018, SF was included under ISPM15 as an acceptable treatment for timber packing and dunnage

SF fumigant is inhaled by active life stages and diffuses onto eggs



SF management

Stewardship program

Normally, SF is managed under a stewardship program where local distributors train and monitor its safe and effective use by fumigators

Distributors train fumigators before initial distribution of SF and then annually to ensure correct knowledge is maintained



SF regulation

The department has established an onshore SF approved arrangement for managing SF fumigation compliance on imported goods

The department has also established an Offshore Brown Marmorated Stink Bug (BMSB) treatment providers scheme incorporating SF approved treatment providers for managing offshore BMSB SF fumigation compliance

In both schemes, the department has incorporated the requirement for fumigators to operate under their local distributor's SF stewardship program to help ensure SF fumigation training is conducted and treatment compliance is achieved

SF treatment compliance

SF fumigation methodology

The department has developed an SF fumigation methodology

Its development included consultation with Douglas Products (the main SF manufacturer/distributor globally), the Australian treatment industry and internal stakeholders

It incorporates the utilisation of stewardship program training and compliance requirements where necessary

www.agriculture.gov.au/import/arrival/treatments/treatments-fumigants

Conducting SF treatments

Fumigation

The SF fumigation process is fundamentally the same as that used for methyl bromide

However, the one key difference is that with a boiling point of -55°C , a vaporiser is not required

For reference: methyl bromide's boiling point is $+3.6^{\circ}\text{C}$



Conducting SF treatments

Dose Rates

SF dose rates are detailed in two ways:

1.

The traditional way used by the department for QPS fumigations, set out as follows:

- Required dose (g/m^3), min temp, min duration, min end point concentration (% or specific g/m^3)
- E.g.: a dose of $24\text{g}/\text{m}^3$, with a minimum temperature of 10°C , for a minimum of 12 hours, with a minimum end point reading of $12\text{g}/\text{m}^3$

Conducting SF treatments

Dose Rates

2.

For treatment providers operating under a stewardship program (who are provided software to determine dose required and treatment efficacy) the rate is set out as follows:

- Required min CT ($\text{g}\cdot\text{h}/\text{m}^3$), min temp, min time, min end point concentration
- E.g.: achieve $200\text{g}\cdot\text{h}/\text{m}^3$, with a minimum temperature of 10°C , for a minimum of 12 hours, with a minimum end point reading of $12\text{g}/\text{m}^3$

SF equipment

Leak Checking

As an inorganic compound, VOC leak checkers are ineffective for use to detect SF

SF specific leak checkers must be used, e.g. Spectros SF-ExplorIR

Monitoring

SF specific fumigant monitoring devices are required, e.g. Fumiscop, Spectros SF-ContainIR or ppm PROcheck



Commodities and pests

The department currently accepts SF as a treatment for certain timber commodities and timber packing and dunnage

SF is also one of the department's three acceptable treatments for BMSB



SF benefits

- Reliable
- Broad-spectrum use
- Sustainable, not an ozone depleting fumigant
- Non-flammable, non corrosive
- Excellent penetration
- Managed under stewardship from the supplier provides an additional layer of regulation

SF issues

- Equipment can be expensive
- Limited availability through global supply chain
- Usage registration from country to country not consistent
- Variable acceptance from country to country

Questions?



附件13、Cold disinfestation as a Phytosanitary Measure



Cold disinfestation as a Phytosanitary Measure

New Zealand's Experiences

Outline

1. Biosecurity in New Zealand
2. Import pathways
3. Application
4. Case study – table grapes
5. Conclusions



Biosecurity in New Zealand

Our goal is to grow and protect New Zealand

- Facilitate trade (imports and exports)
- Protect New Zealand's primary industries
- Protect New Zealand's biodiversity
- Manage risks to plant, animal, and human health

MPI aims to:

- Prevent harmful organisms entering and establishing
- Reduce the harm caused by organisms that are already here
- Communicate with the public



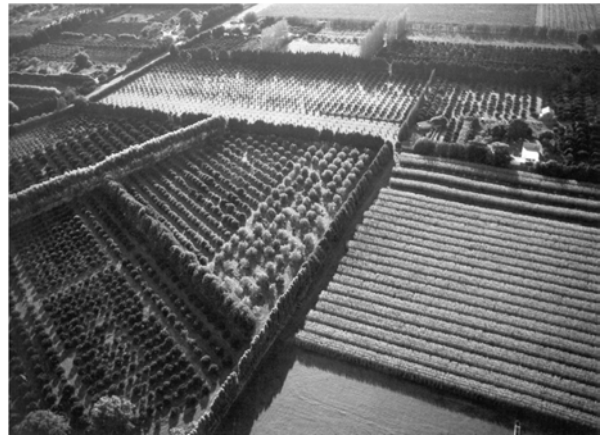
Biosecurity in New Zealand – Why it's important to keep pests out

- To protect our natural resources (unique flora, fauna and ecosystems)
- To protect physical resources (all organisms, landscape, geology, structures and systems)
- To protect human health
- To protect cultural values
- To protect our trading partners from pests we have
- To grow our economy while minimising biological threats



Biosecurity in New Zealand – Why it's important to keep pests out

- NZ is geographically remote
- 80% of flora and 90% of insects are endemic
- NZ is free of many pests and diseases
- NZ is reliant on primary industries
- NZ exports 90% of the food produced



Biosecurity in New Zealand – Why it's important to keep pests out

- The NZ horticulture export market is worth approx. \$4 billion
- Exports are enhanced by NZ being free of fruit flies
- NZ spends \$1.5 million annually on surveillance trapping for exotic fruit flies
- The last incursion of fruit fly in NZ cost \$18.1m to eradicate



Plant Import Pathways

- NZ imports many fruit fly host commodities
- Disinfestation treatments are important for keeping fruit fly and other high risk pests out. These include:
 - Cold
 - Heat
 - Irradiation
 - Fumigation



v



Cold treatment & Plant Import Pathways

Wherever possible NZ uses international standards (ISPMs) to set requirements e.g. ISPM 28

Annex 16: Cold treatment for *Bactrocera tryoni* on *Citrus sinensis* (orange) (FAO 2015a)

Annex 17: Cold treatment for *Bactrocera tryoni* on *Citrus reticulata* x *C. sinensis* (tangor) (FAO 2015b)

Annex 18: Cold treatment for *Bactrocera tryoni* on *Citrus limon* (lemon) (FAO 2015c)

If there is no international standard then NZ requires Probit 8.7 efficacy for high risk pests i.e. 0 survivors 30,000



v



Cold treatment & Plant Import Pathways -



pre-export or in transit

Country	Commodity(ies)	Temp.°C	Days	Target pest
Australia	All citrus, grape and pear	0	13	<i>Bactrocera tryoni</i>
		1	16	
Italy	Kiwifruit	0	10	<i>Ceratitis capitata</i>
		0.55	11	
		1.11	12	
		1.66	14	
		2.22	16	
Italy	Grape	0	10	<i>Ceratitis capitata</i>
		0.55	11	
		1.11	12	
		1.66	14	
		2.22	16	

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Cold treatment & Plant Import Pathways -



pre-export or in transit

Country	Commodity	Temp.°C	Days	Target pests
Peru	Grape	1.11	15	<i>Anastrepha fraterculus</i>
		1.67	17	<i>Ceratitis capitata</i>
Taiwan	Lychee	1	13	<i>Bactrocera dorsalis</i> <i>Bactrocera cucurbitae</i>
Thailand	Lychee	0	10	<i>Bactrocera dorsalis</i>
		0.56	11	<i>Bactrocera cucurbitae</i>
		1.11	12	
		1.67	14	
Thailand	Longan	0.99	13	<i>Bactrocera dorsalis</i>
		1.38	18	<i>Bactrocera correcta</i>

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Cold treatment & Plant Import Pathways -

pre-export or in transit



Country	Commodity	Fumigation + Cold	Cold Temp. °C	Days	Target pest
USA	Grape	SO ₂ /CO ₂ (1:6%) 16°C or above for 30 min AND Cold treatment	-0.5	6	<i>Drosophila suzukii</i>
			0.9	12	
USA	Stonefruit – apricot, nectarine, peach, plum	NA	0	10	<i>Drosophila suzukii</i>
			0.55	11	
			1.11	12	

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Plant Import Pathways: Application



Sensor calibration

Photo: Ross Farnell

- For cold disinfestation to be operationally effective and measurable, a number of specifications need to be met.
- MPI provides operational specifications to trading partners for the application of cold disinfestation on-shore and in-transit



Carton preparation

Photo: Ross Farnell



Probe placement

Photo: Ross Farnell

Plant Import Pathways: Application



- ISPM 42: *Requirements for the use of temperature treatments & phytosanitary measures* provides an overview of requirements
- MPI's operational specifications include detail about:
 - Responsibility of Authority
 - Documentation and audit
 - Equipment requirements
 - Temperature recording systems
 - Display standards for recorders
 - Approval of containers and facilities
 - Sensor numbers and placement
 - Product security
 - Traceability

V



Plant Import Pathways Case study: Table Grapes



In-transit cold treatment in
integral container
External Control Panel



Plant Import Pathways

Case study: Table Grapes



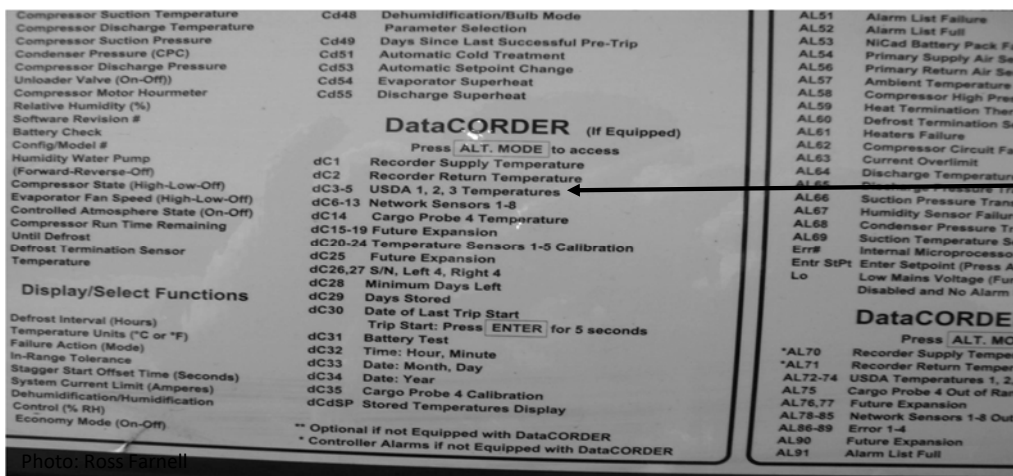
In-transit cold treatment in integral container Certified Container

Photo: Ross Farnell



Plant Import Pathways

Case study: Table Grapes



In-transit cold treatment in integral container
USDA Container Function Codes

Photo: Ross Farnell



Plant Import Pathways

Case study: Table Grapes

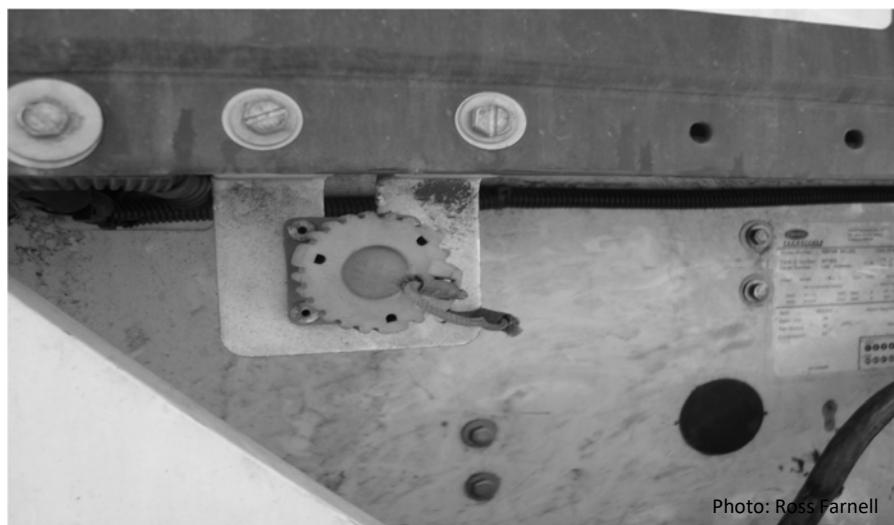


Photo: Ross Farnell

**In-transit cold treatment in
integral container**
External Download Outlet from
Sensors

V

Ministry for Primary Industries
Manatū Ahu Matua



Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**
40 ft Container preparation

Ministry for Primary Industries
Manatū Ahu Matua



Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**
Access Panel for Connecting
Probes

Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**
Probes Connected to Internal
Receptacle

Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**

Sensor Cables from Internal
Receptacle

V



Plant Import Pathways

Case study: Table Grapes

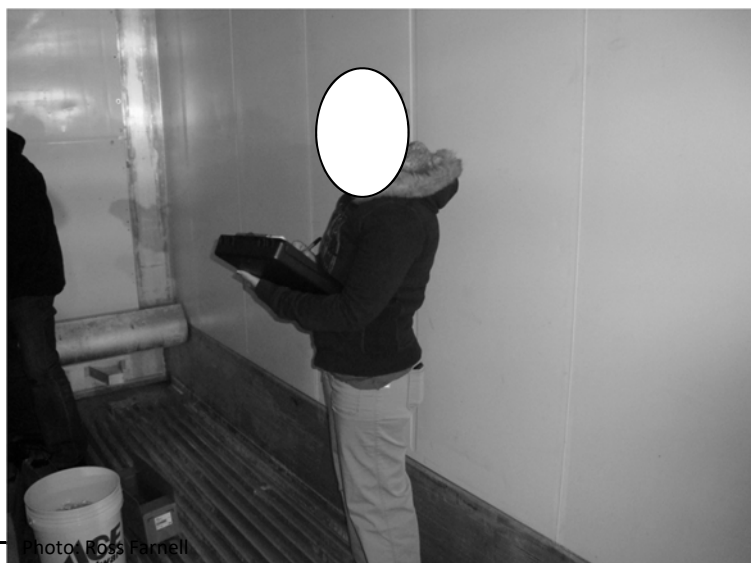


Photo: Ross Farnell

**In-transit cold treatment in
integral container**

Supervising Quarantine
Inspector

V



Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**
Checking Refrigeration Unit
Software



Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**
Sensor Calibration in Slurry of
Ice and Water



Plant Import Pathways

Case study: Table Grapes



Photo: Ross Farnell

**In-transit cold treatment in
integral container**
Laying Sensor Cables

V

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Manatū Ahu Matua



Plant Import Pathways

Case study: Table Grapes



**In-transit cold treatment in
integral container**
Probe Inserted in Stack

V

Ministry for Primary Industries
Manatū Ahu Matua



Plant Import Pathways: Monitoring Operational Effectiveness

- Early issues were resolved by table grape exporters via the development of a code of practise to limit treatment failures.
- The code is in addition to MPI specifications and includes:
 - Defining the age of containers to be used
 - Pre-cooling of fruit
 - Supplying appropriate information/instructions to shipping companies re treatment parameters
 - Optimal loading parameters to ensure adequate airflow

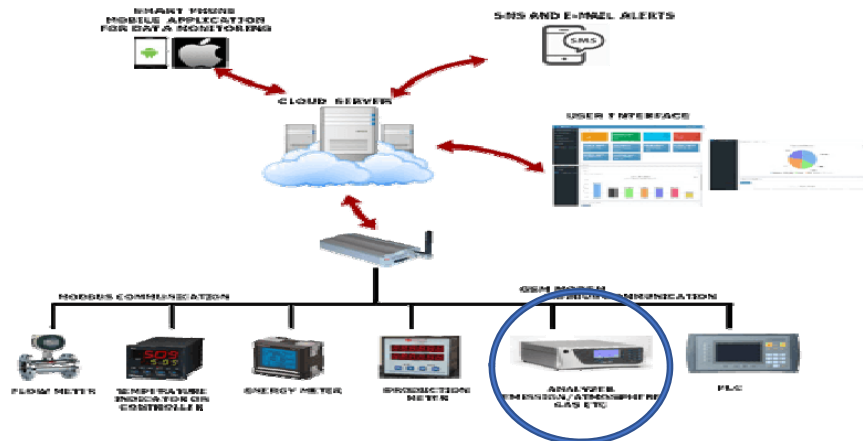


Conclusion

- New Zealand has approved many cold disinfestation schedules for the import of fruit fly hosts.
- Cold disinfestation has enabled trade in hosts of other pests such as *Drosophila suzukii*.
- Operational requirements have proved to be very effective as no live fruit flies or *Drosophila suzukii* have been intercepted on cold disinfested commodities imported into New Zealand.

附件14、Data Logger use for fumigation

Ministry for Primary Industries
Manatū Ahu Matua

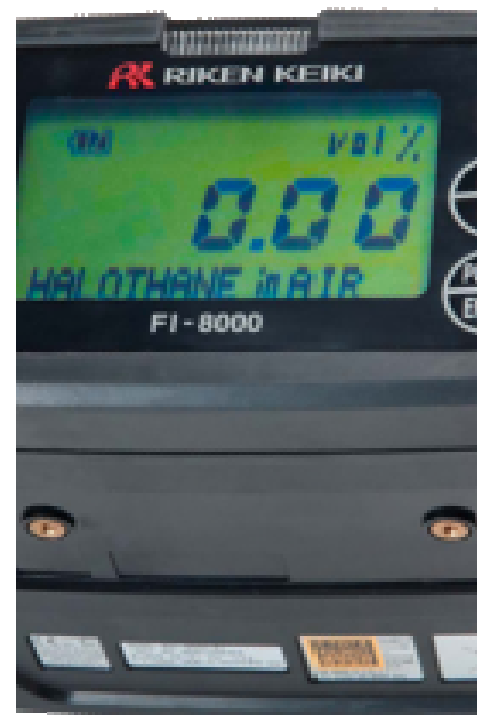


Background

With the methyl bromide methodology finalised, a common auditing issue is the recording of monitoring data.

Some monitors, (i.e. Riken F1-8000) series) have the ability to store up to 100 data sets. However the download to an excel spreadsheet can enable tampering to occur.

What other options exist?



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Dataloggers

Data loggers are electronic devices which automatically monitor and record environmental parameters over time, allowing conditions to be measured, documented, analysed and validated. The data logger contains a sensor to receive the information and a computer chip to store it. Then the information stored in the data logger is transferred to a computer for analysis or a report in pdf is sent.



Dataloggers -monitoring

BLE (Blue Tooth Low Energy) -enabled monitoring will enable data in real time to be downloaded to a free application to your mobile device. There is no ability to change the data manually and data can be viewed at any time during the fumigation by an operator/auditor.

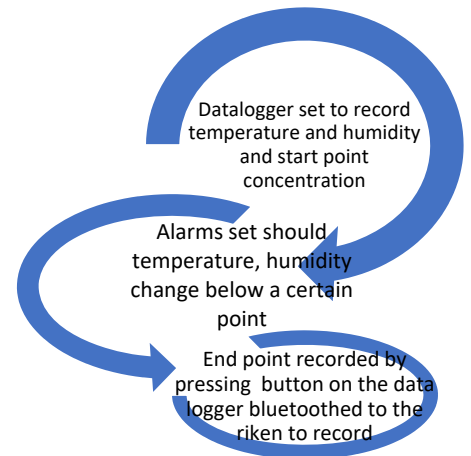
Information

- <https://www.onsetcomp.com/resources/hoboware-data-logging-software-ask-experts>
- <https://www.youtube.com/watch?v=N-GSTtG6K6s>



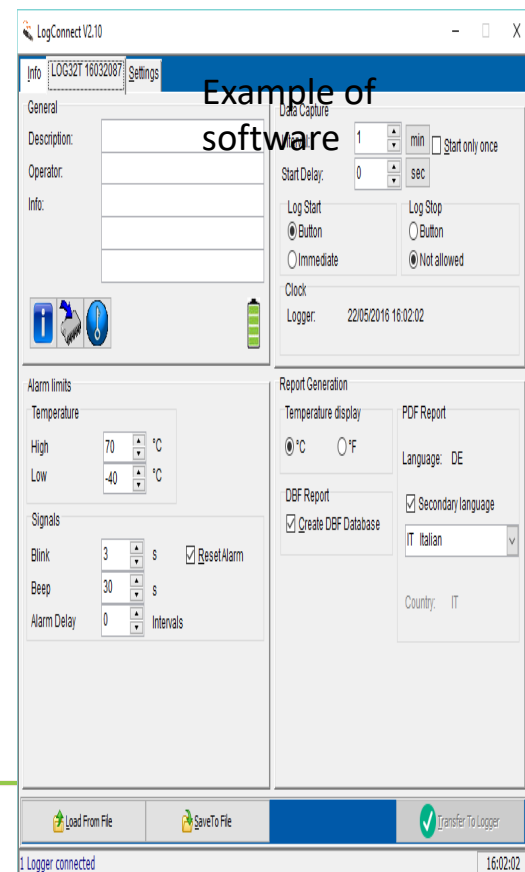
How to use

- Choose datalogger compatible with a fumigation monitoring tool (BLE) i.e Temp BLE from Tecnosoft.eu
- Monitor fumigation and record blue tooth data to datalogger. (requires an extra button to be pressed)
- Cost effective -ranging in cost from US\$6-\$465.



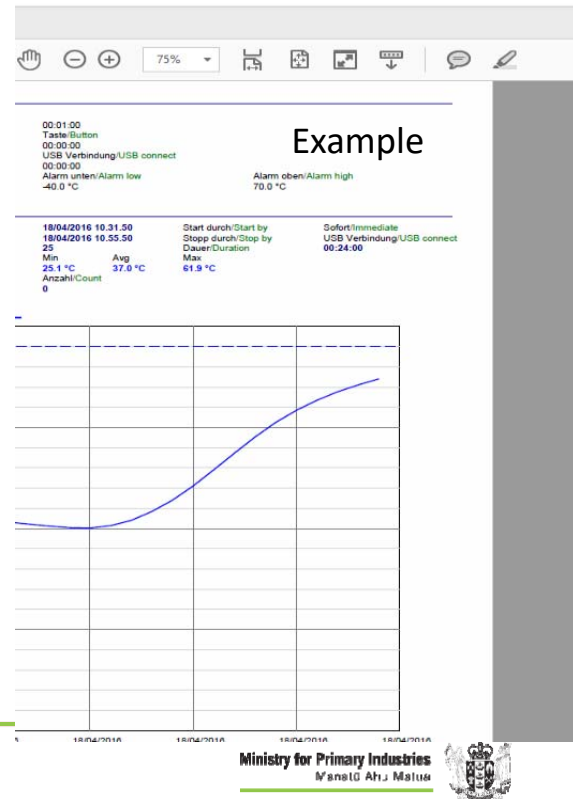
Benefits

- Provide confidence in monitoring (tamper proof)
- Auditable recordings
- Treatment providers actively audited (can be checked remotely)
- BLE solutions accurately locates where the monitoring data is being taken from (time, location and date stamp)



Datalogger –without software

- Sends a report in pdf to an email (treatment providers/auditors)
- Fumigation Monitoring points (start and end) are entered via blue tooth from a riken or other electronic fumigation monitoring tool.



Conclusion

- Dataloggers can be required where a treatment providers' monitoring practices are queried.
- Auditability of dataloggers (pdf report required to be sent through that is time logged with the location) and tagged to a treatment certificate);
- Auditing start point and end point monitoring is difficult and data loggers may be a tool to consider.



Thank you



Australian agriculture and global counsellor network



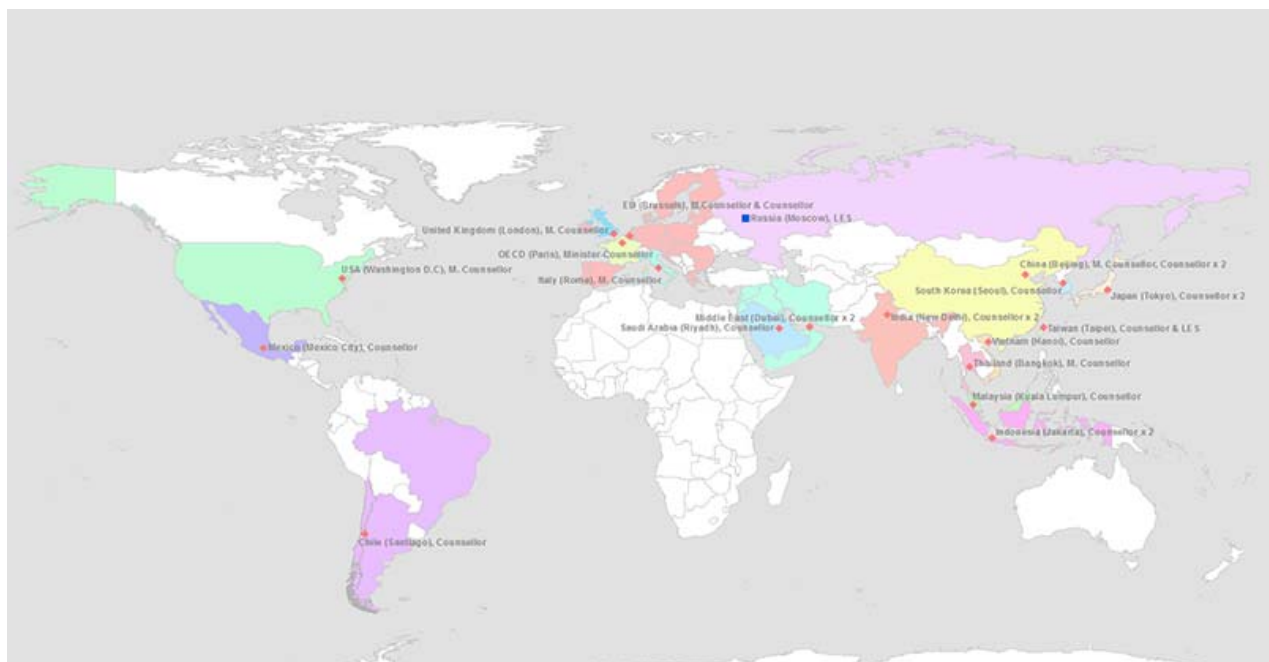
Dr Kate Makin

Agriculture Counsellor - Central America/Caribbean

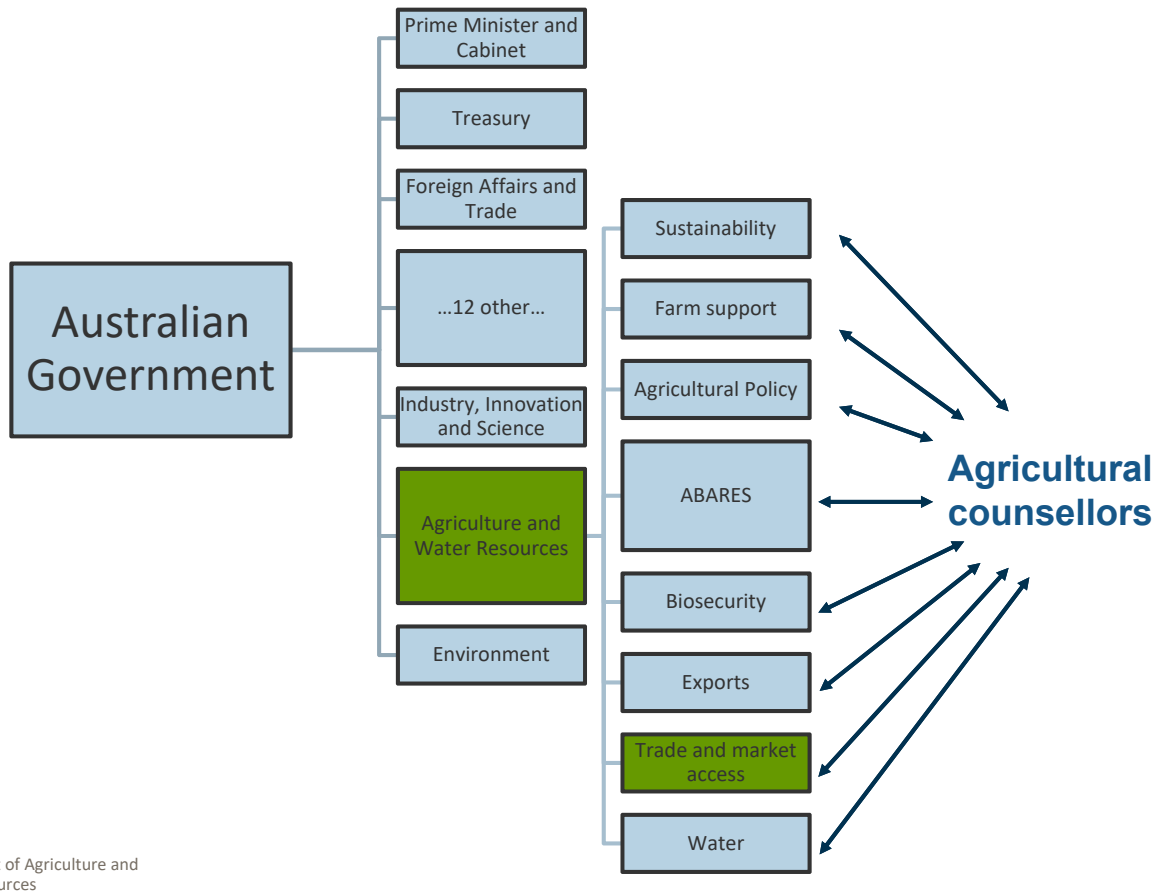


Australian Government
Department of Agriculture
and Water Resources

Agriculture's agriculture counsellor network

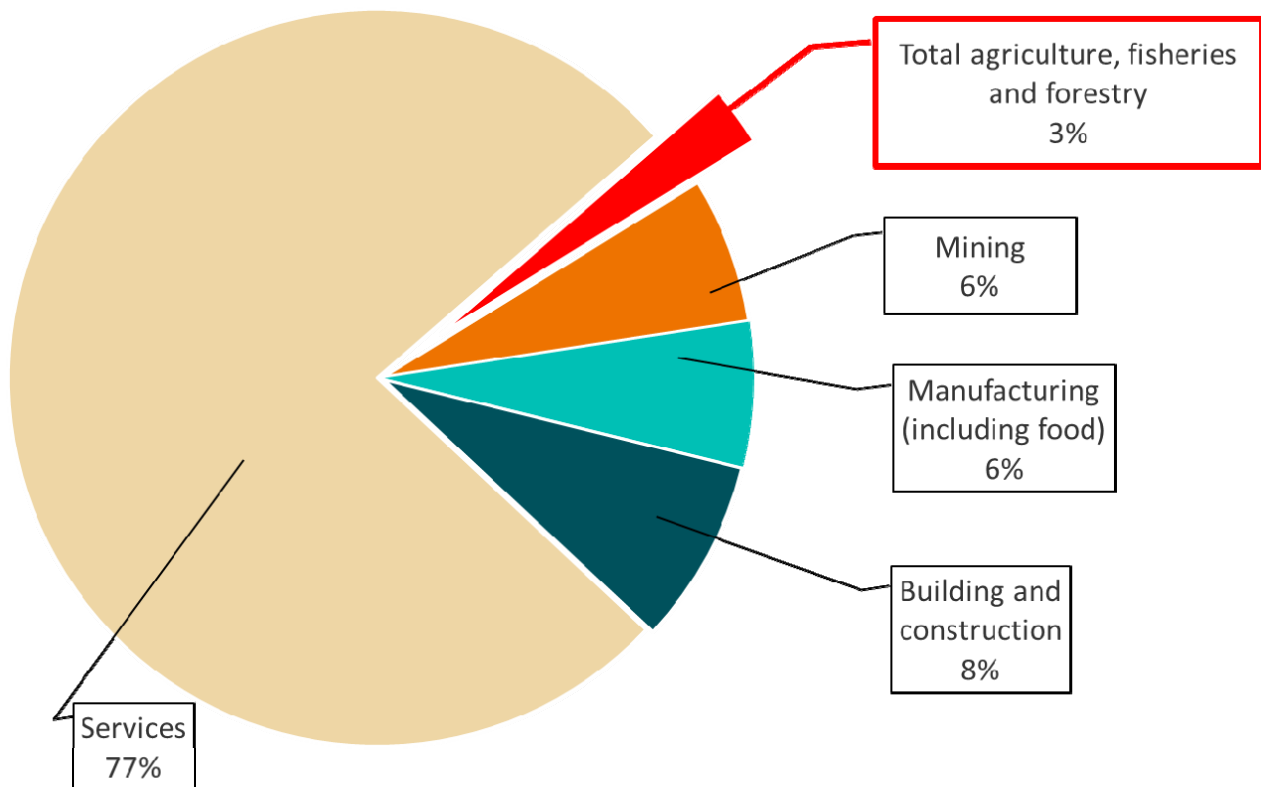


Department of Agriculture and Water Resources



Department of Agriculture and Water Resources

Agriculture's contribution to GDP, 2017-18



Department of Agriculture and Water Resources

Australian agriculture

Agriculture also an important contributor to Australian employment



250,700

People employed in agriculture

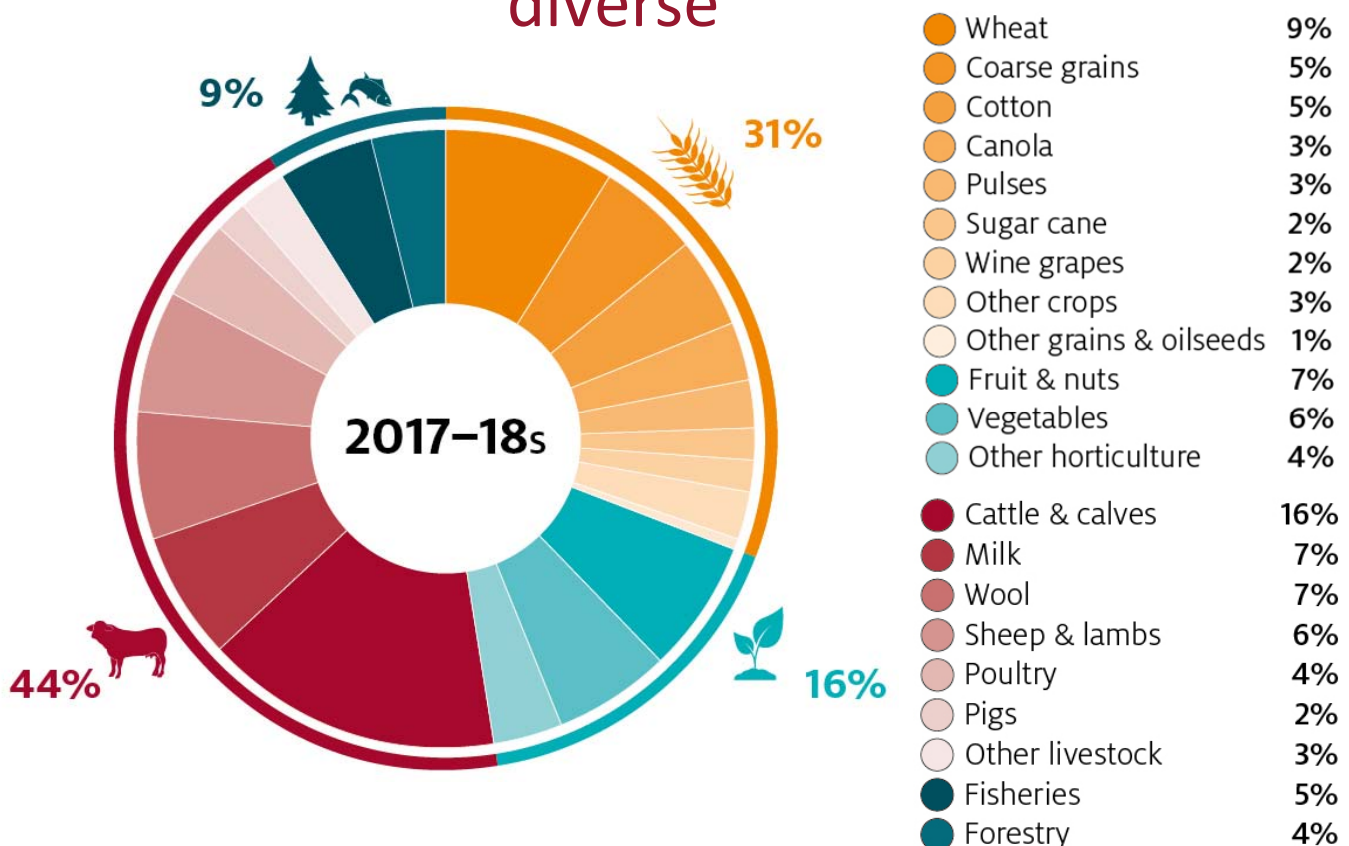


85,000

Farming enterprises

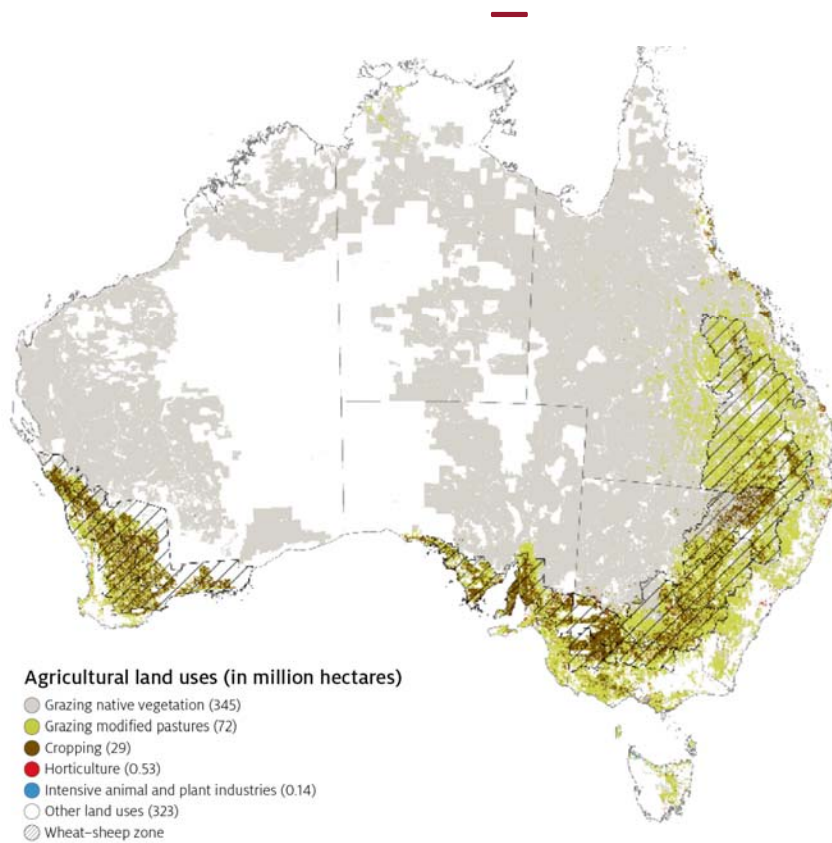
Department of Agriculture and Water Resources

Agriculture production in Australia is diverse



Department of Agriculture and Water Resources

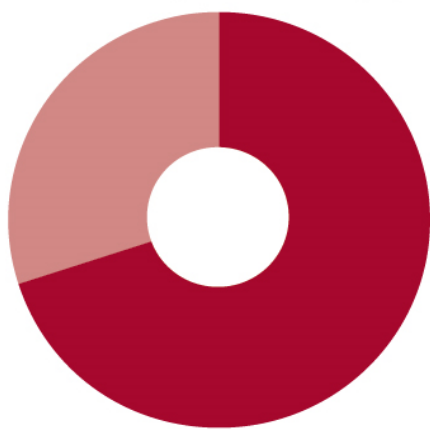
And takes place across the country



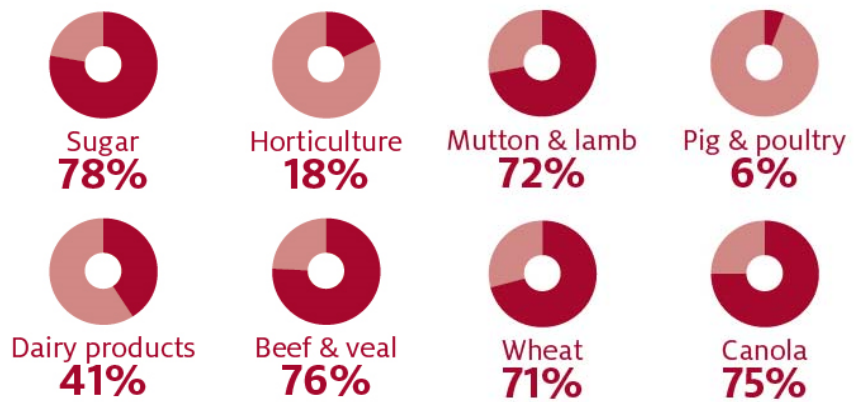
Department of Agriculture and Water Resources

Agricultural trade important – both as an exporter and an importer

Share of agricultural production exported, 3-year average, 2014–15 to 2016–17

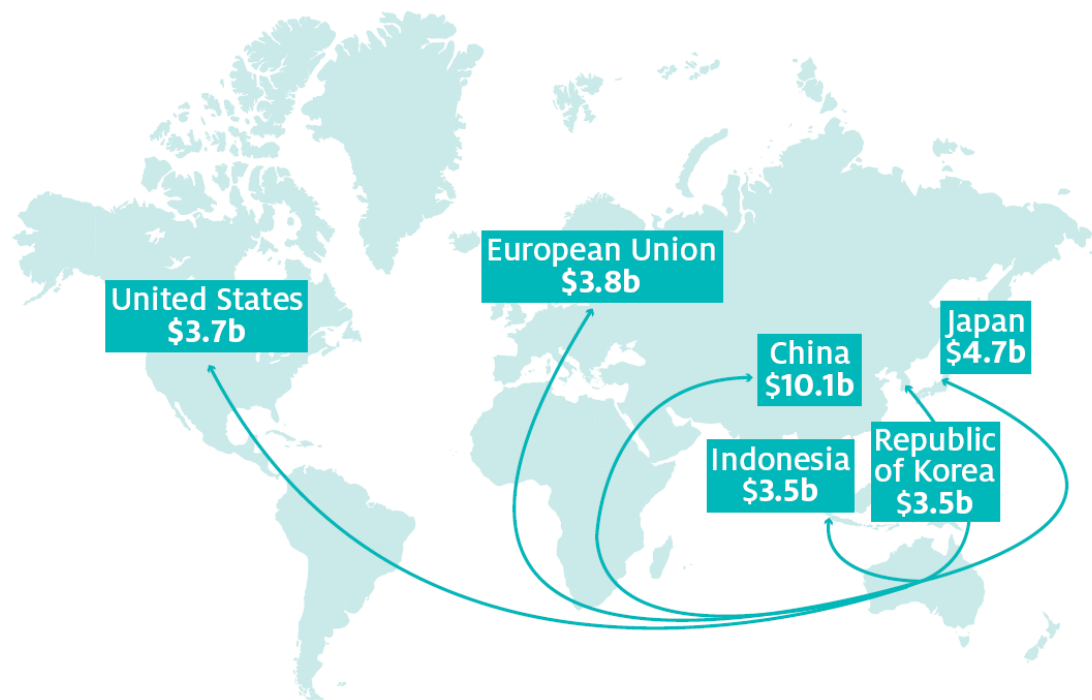


70%
of agricultural production
is exported



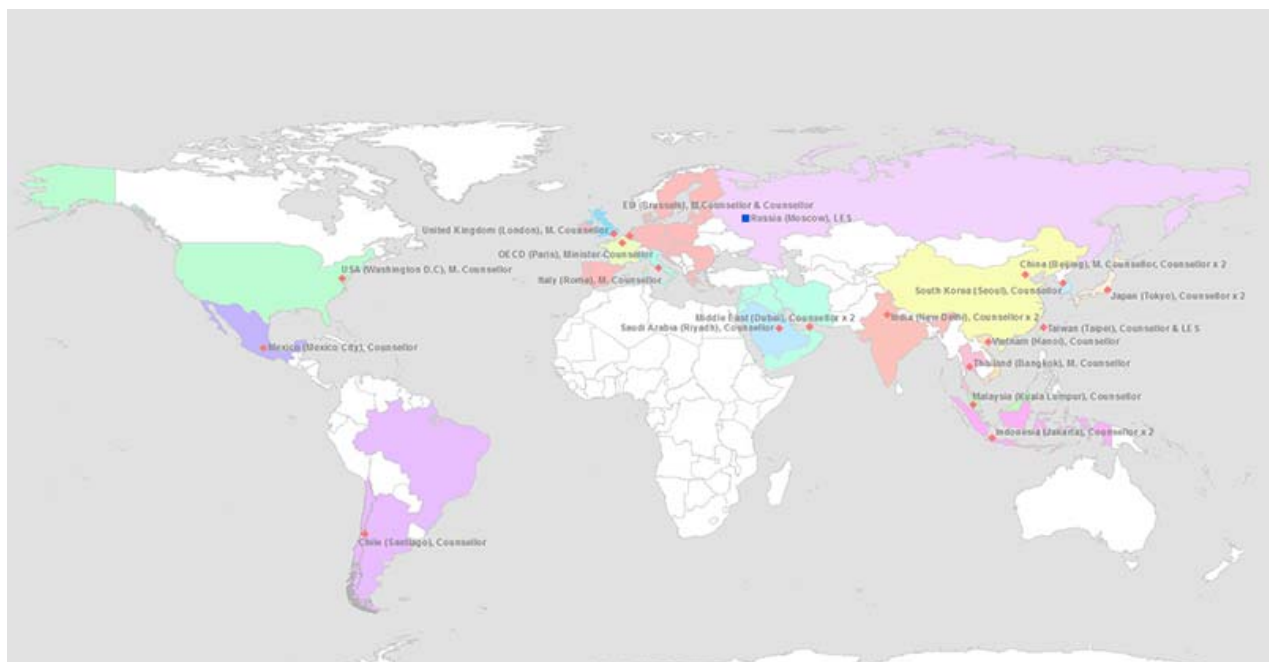
Department of Agriculture and Water Resources

Australia's key agricultural export markets, 2016-17 A\$ billion



Department of Agriculture and Water Resources

Agriculture's agriculture counsellor network



Thankyou

Dra. Kate Makin BVSc, PhD

Consejera (Agricultura) | Counsellor (Agriculture)

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E-mail: kate.makin@dfat.gov.au

附件16、Trade Facilitation



Facilitating *Safe* Trade in Food and Agriculture Products

QRM meeting
10 April 2019, Panama

Melvin Spreij
World Trade Organization

Shane Sela
World Bank Group



WTO SPS Agreement striking the balance

Recognizing
the right to protect
human, animal, plant
life or health



Avoiding
discrimination and
unnecessary
barriers to trade



Global coordination platform, knowledge hub and network for SPS capacity building

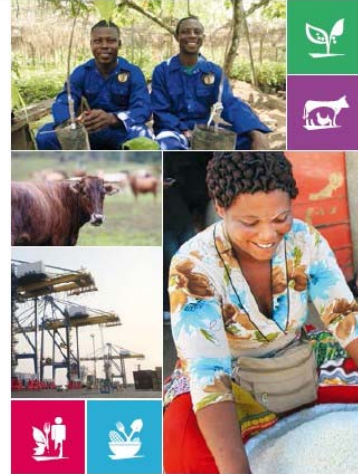


Funds for innovative, cross-cutting SPS projects and project development



DRIVING SAFE TRADE SOLUTIONS WORLDWIDE

Supporting farmers, processors and traders in developing countries to access global markets



The STDF is supported by



Realities on the ground

SPS measures may result in justifiable transaction costs based on the need to protect health

but

Ineffective and inefficient SPS controls disrupt trade more than necessary, and sometimes result in poor health protection



SPS procedural obstacles

Limited information

Multiple inspections

Lack of coordination at borders

Complex and lengthy procedures

Excessive document requirements

No complaints / appeal procedures

Arbitrariness, unpredictability



Influencing factors

Low awareness about importance
of trade facilitation

Trade facilitation not seen as part
of core role

Limited skills, technical capacity

Too little funding for operational
costs

Lack of public-private dialogue

Why this matters

More controls than justifiable

Longer than needed waiting times

Increased costs for traders,
also for governments

SMEs suffer the most

Informal trade



Win-win opportunities to facilitate *safe* trade



- Use international standards
- Improve transparency
- Streamline SPS processes
- Use risk-based approaches
- Move towards SPS e-cert
- Connect customs and SPS authorities

www.standardsfacility.org/facilitating-safe-trade

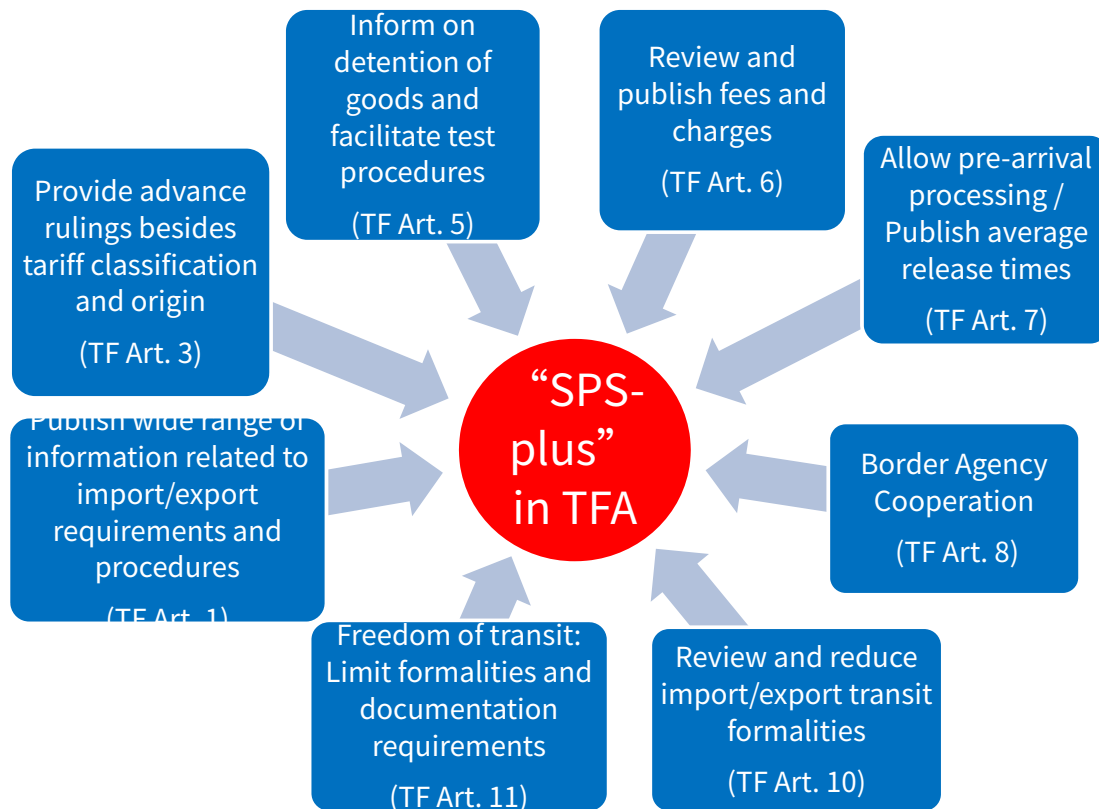
Trade Facilitation Agreement (TFA)



Entered into force on 22 February 2017

Applies to all relevant border agencies

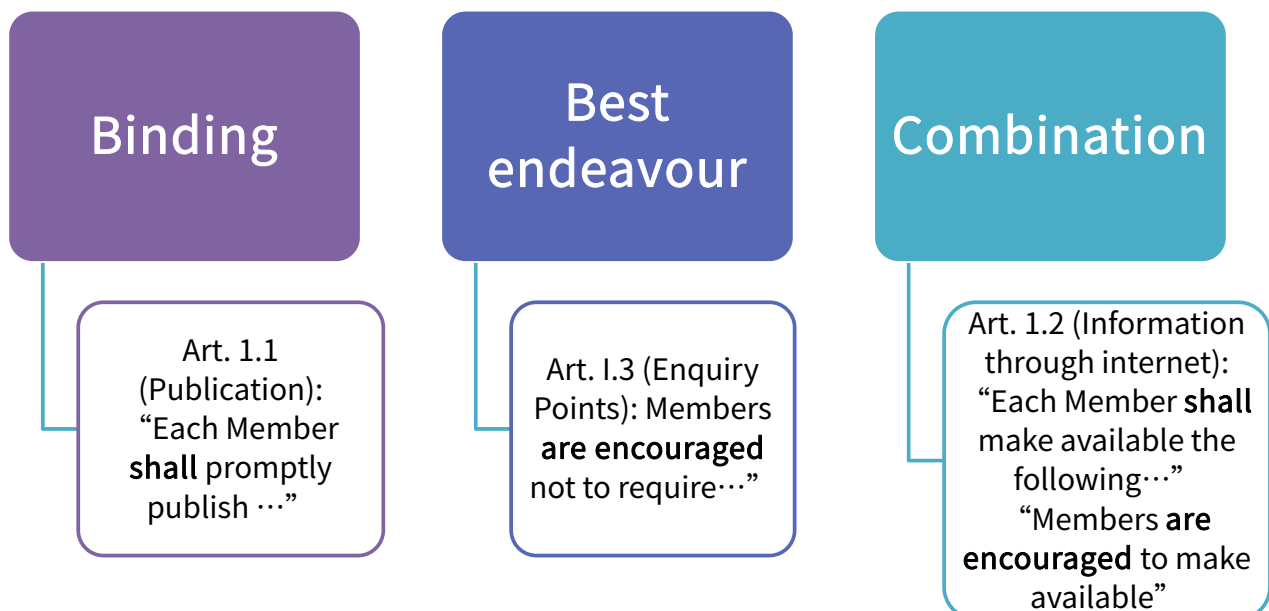
Goal: Expedite movement, release & clearance of goods



Relationship between TFA and SPS Agreement
Secretariat background note (11 October 2018)
https://www.wto.org/english/tratop_e/sps_e/tf_sps_e.pdf



Nature and scope of obligations in the TFA





Section I

12 Articles with approximately 40 “technical measures”



Article 1
Publication &
Availability
of Information



Article 5
Measures to Enhance
Impartiality, Non-
Discrimination
& Transparency



Article 9
Movement under
Customs Control



Article 2
Comment
and Consultations



Article 6
Disciplines on Fees
and Charges



Article 10
Import, Export
& Transit
Formalities



Article 3
Advance
Rulings



Article 7
Release and
Clearance
of Goods



Article 11
Freedom
of transit



Article 4
Procedures for
Appeal or Review



Article 8
Border Agency
Cooperation



Article 12
Customs
Cooperation



Article 7.4 Risk Management



Each Member shall:

4.1 to the extent possible, adopt or maintain a risk management system for customs control.

4.2 design and apply risk management in a manner as to avoid arbitrary or unjustifiable discrimination, or a disguised restriction on international trade.

4.3 concentrate customs control and, to the extent possible other relevant border controls, on high-risk consignments and expedite the release of low-risk consignments.

A Member also may select, on a random basis, consignments for such controls as part of its risk management.



Article 7.7 Trade Facilitation Measures for Authorized Operators

A Member shall provide additional TF measures, to operators who meet specified criteria.

Members shall allow possibility of negotiation of mutual recognition of authorized operator schemes with other Members.



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Authorized Operators



TF measures for AO shall include at least 3 of the following:

- (a) low document & data requirements, as appropriate;
- (b) low rate of physical inspections and examinations, as appropriate;
- (c) rapid release time, as appropriate;
- (d) deferred payment of duties, taxes, fees, and charges;
- (e) use of comprehensive guarantees or reduced guarantees;
- (f) a single customs declaration for all imports or exports in a given period; and
- (g) clearance of goods at the premises of the authorized operator or another place authorized by customs.



Article 7.9 Perishable Goods



- View to preventing loss & deterioration:
 - ✓ Release in shortest possible time
 - ✓ If necessary, outside business hours
- Priority in exam schedule
- Proper storage provided/allowed
- Reason provided if significant delay

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Article 8 Border Agency Cooperation

National cooperation

Each Member shall ensure cooperation & coordination of its agencies responsible for import, export, transit border controls & procedures.



Cross border cooperation

Each Member shall, to extent practicable, coordinate procedures across borders. This may include:

- a) align working days/hours;
- b) align procedures/formalities;
- c) develop & share common facilities;
- d) joint controls;
- e) establishment of one stop border post control.

WTO/WCO/WBG/Codex/OIE/IPPC/STDF
Regional Border Agency Cooperation
workshops

18



Members must streamline and simplify formalities and document requirements.

Article 10.1 Formalities and Documentation Requirements

Synergies with Art. 8 and
Annex C SPS Agreement
(Control, Inspection &
Approval Procedures)

Formalities and documents applied:

- With view to rapid release - especially perishable goods.
- With aim to reduce time and cost of compliance.
- In least trade restrictive manner.
- Eliminated if no longer required.

**STDF projects on
ePhyto and eVet**

10.4 Single Window (SW)

4.1 Members shall endeavor to establish a SW enabling traders to submit import, export, transit data through a single entry point to participating agencies. Results of examination shall be notified to the applicant through the SW in a timely manner.

4.2 Where data has already been received through the SW, it shall not be requested again by participating agencies except in urgent circumstances or other limited exceptions which are made public.

4.3 Members shall notify the WTO TF Committee of the details of operation of the single window.

4.4 Members shall, to the extent possible and practicable, use information technology to support the single window.



Article 10.8 Rejected Goods

8.1 If import goods are rejected for failure to meet SPS or technical regulations, the Member shall, subject to and consistent with its laws and regulations, allow the importer to re-consign or return the rejected goods to the exporter or another person designated by the exporter.

8.2 When such option is given and the importer fails to exercise it within a reasonable period of time, the competent authority may take a different course of action to deal with such non-compliant goods.

21



Article 11 Freedom of transit

11.8 Members shall not apply technical regulations and conformity assessment procedures within the meaning of the TBT Agreement to goods in transit.



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SECTION II SPECIAL AND DIFFERENTIAL TREATMENT

Category A: already implementing

Category B: need extra time to implement

Category C: need extra time & TACB

ABC notification with implementation date
& technical assistance needs

WWW.TFAFACILITY.ORG

Provision	Heading/Description	Category	Indicative date for implementation (for categories B and C)	Definitive date for implementation (for categories B and C)	Assistance and Support for Capacity Building Required for Implementation (for category C)
Article 5.3	Test Procedures	C	31 December 2019	31 December 2021	<ul style="list-style-type: none"> Legislation – general relevant laws and policies for agencies such as Bureau of Standards, Ministry of Health to ensure traders have access to second testing. Human Resources/Training – capacity building for relevant border agencies, laboratory technicians and academic institutions on secondary testing. Equipment – technical assistance and capacity building is needed for academic, medicinal, public and private laboratories to provide second testing. Infrastructure/Equipment – accredited laboratory/laboratories to undertake second testing.
Article 6 – Obligations on Fees and Charges Imposed on or in Connection with Importation and Exportation and Passages					
Article 6.1	General Obligations on Fees and Charges Imposed on or in Connection with Importation and Exportation	A	-	-	-
Article 6.2	Specific Obligations on Fees and Charges for Customs Processing Imposed on or in Connection with Importation and Exportation	C	31 December 2021	31 December 2023	<ul style="list-style-type: none"> Legislative Drafting/Amending of all legislation applicable such as the Financial Act, Customs and Trade Administration Act in order to the application of Customs Service Charge (CSC). Procedures – assistance to develop relevant procedures in order to implement and undertake effectively within CSC.
Article 6.3	Penalty Obligations	A	-	-	-
Article 7 – Release and Clearance of Goods					
Article 7.1	Pre-arrival Processing	A	-	-	-
Article 7.2	Electronic Payment	C	31 December 2019	31 December 2021	<ul style="list-style-type: none"> Legislative Drafting/Amending of all legislation and Financial Act in order to undertake Electronic Payment. Procedures – assistance to develop relevant procedures in order to implement electronic payment and

23



SECTION III INSTITUTIONAL ARRANGEMENTS AND FINAL PROVISIONS

ARTICLE 23.2: NATIONAL TRADE FACILITATION COMMITTEE

Each Member shall establish and/or maintain a **national committee on trade facilitation** or designate an existing mechanism to facilitate both domestic coordination and implementation of the provisions of this Agreement.

24.6 “... nothing in this Agreement shall be construed as diminishing the rights and obligations of Members under the Agreement on Technical Barriers to Trade and the Agreement on the Application of Sanitary and Phytosanitary Measures.”

Steps to follow on STDF PPG or project funding

Browse webpages for eligibility criteria
www.standardsfacility.org/project-preparation-grants
www.standardsfacility.org/project-grants

View examples of previous projects
Read the guidance note for applicants
Consult stakeholders in the country/region

Send concept for feedback STDFSecretariat@wto.org

Submit application form online before **19 July 2019**



FIND OUT MORE ABOUT STDF'S WORK AND GET INVOLVED

Access SPS information and tools at www.standardsfacility.org

Browse SPS resources in the online Library

Share experiences and lessons at STDF's Working Group

Sign up for updates through STDF's e-news

View good practice films on STDF's YouTube channel



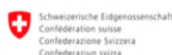
WBG is a major provider of trade related assistance

- Analysis and diagnostics
- Advisory services
- Financing of trade infrastructure and institutional reform
- Research and data products
- Global advocacy and partnerships
- More than 120 customs, border management and trade facilitation projects over last 20 years



Trade Facilitation Support Program

- 45 developing countries being supported
- \$45 million in commitments from donors
- Alignment of laws, procedures, processes, systems to Trade Facilitation Agreement (TFA)
- Practical/demand-driven assistance
- Focus on full and effective implementation of the TFA



TWO OVERALL PROGRAM COMPONENTS



- Provision of technical assistance to developing countries
 - Reform of trade facilitation laws, procedures, processes, systems, and consultative mechanisms
- Facilitation of knowledge sharing, peer-to-peer learning, and the measurement of progress and results.



Risk management – differing perspectives

SPS

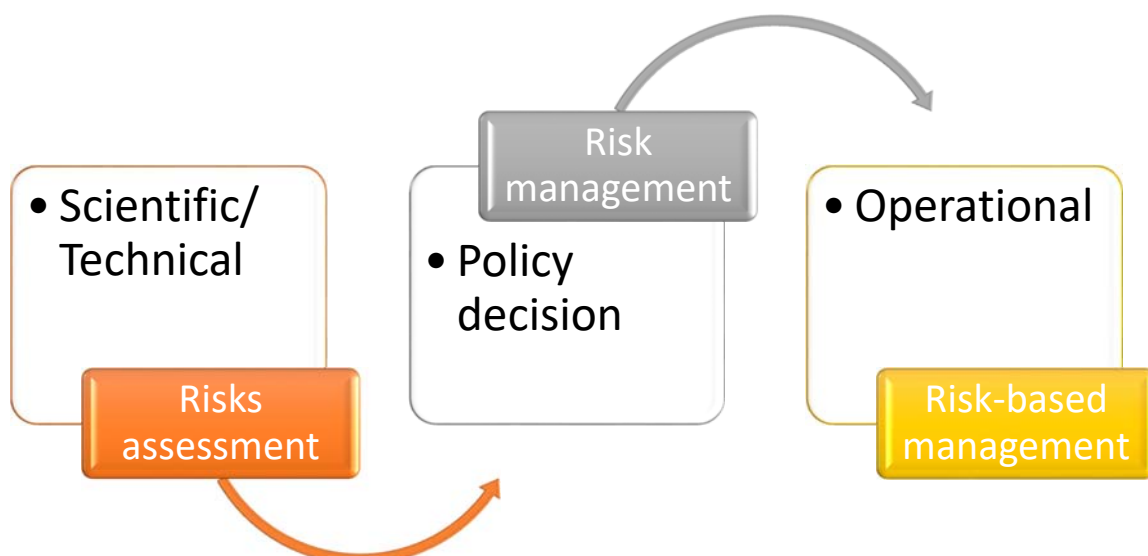
- Risk analysis - standardized process
- Risk management - policy decision making
- Often static

Customs

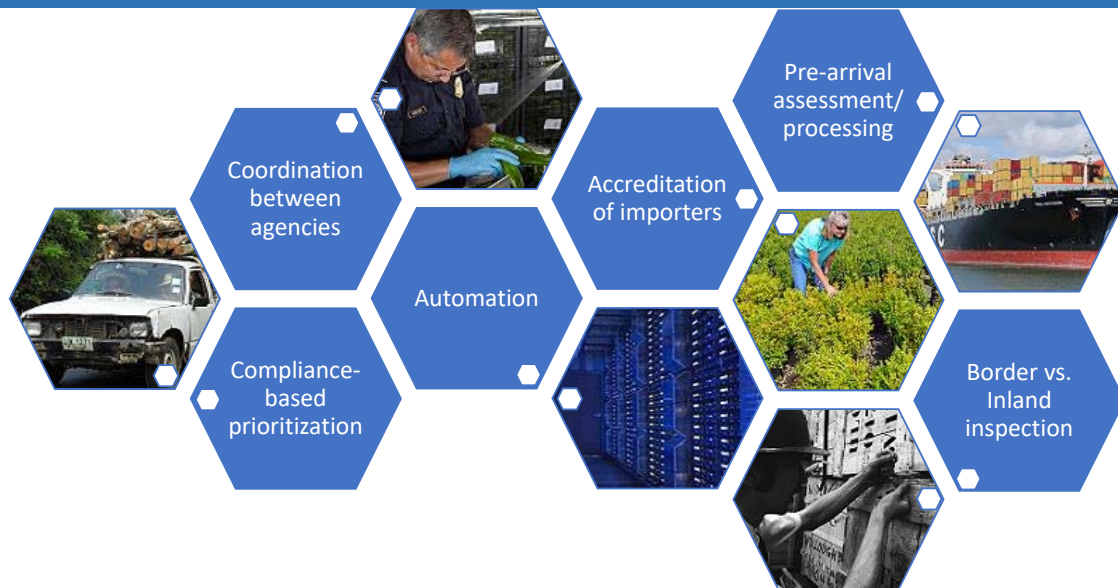
- Risk assessment
 - Selectivity, profiling and targeting
 - Compliance measurement
- Risk management is strategic, operational and tactical



Risk-based management



Tools in risk-based management process



Understanding the barriers for women traders

- Global survey of barriers faced by women in formal cross-border trade
- To inform future trade facilitation projects to better address gender-specific constraints
- Significant data gaps on:
 - The number of women traders in each country
 - The exact nature of the barriers in cross border trade
 - The gender-impact of improved customs and border procedures

Understanding the barriers for women traders

- Identification of universe of women traders (ongoing)
- Focus group discussions in Vietnam and Fiji (spring 2019)
- Rollout of survey across TFSP supported countries in EAP (Cambodia, Fiji, Lao PDR, Samoa, Papua New Guinea, Timor-Leste, Vanuatu and Vietnam) (spring 2019)
- Dissemination of findings (summer/fall 2019)
- Next region roll-out (fall 2019)



Understanding the impact of border procedures on perishables

- Survey of traders to understand the challenges in the movement of perishables
- Allow for more focused interventions to better address border management challenges



Developing a SPS border analysis tool

- IPPC, OIE and FAO/WHO have existing diagnostic tools to support the assessment of competent authorities
- Using existing tools develop a tool to support assessment of competencies in border management
- Objective to align SPS border management reforms with the TFA objectives



Supporting automation

- Supporting the IPPC and OIE in implementing ePhyto and eVet in developing countries to improve safe trade
- Improvements to efficiency, effectiveness and security
- Inter-operability/information sharing – Single Windows, Customs Risk Management, ePhyto, eVet
- Working with IPPC, OIE and Codex - through STDF - to facilitate alignment between electronic documents



Thank you ... what are your views?



What practical examples do you have of customs and SPS agencies working together?



How do you measure the effectiveness of your border activities?



How are you sharing information/data with other border agencies to facilitate and improve safe trade?



How do you participate in your National Trade Facilitation Committee?



How can you leverage funding for TFA implementation to improve SPS border management?



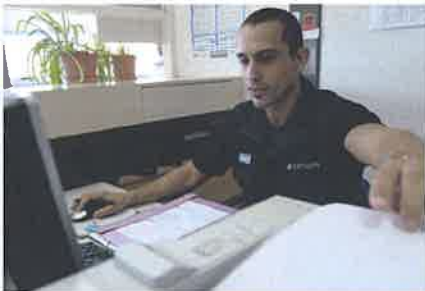
WORLD BANK GROUP

STDF

Facilitating safe trade: going paperless with SPS e-certification

The Trade Facilitation Agreement

The WTO Trade Facilitation Agreement sets out how to speed up the movement, release and clearance of goods across borders, including goods in transit. Going paperless with electronic systems can help to cut red tape and support effective cooperation among border agencies. The Agreement, which includes provisions for technical assistance and capacity building, aims to broaden participation in global value chains and improve transparency.



Paperless SPS systems count

With the entry into force of the WTO Trade Facilitation Agreement, governments and industry partners around the world are actively seeking solutions to move goods across borders more quickly and efficiently. Paperless trade is an important way to reduce trade transaction costs and facilitate trade. In the Asia-Pacific Region alone, paperless trade is expected to generate annual export gains worth up to US\$257 billion, reduce export time by up to 44% and lower export costs by up to 33%¹. Paperless trade can promote national development, drive economic growth and competitiveness and improve food security, thereby supporting the achievement of the Sustainable Development Goals.

The exchange of regulatory documents and certificates is crucial in international trade transactions. Paperless trade means that the electronic exchange of trade-related certificates is conducted in a structured format, based on open and agreed standards. In the context of international trade, an electronic certificate is considered equivalent to a paper certificate, in that it contains the same information and gives the same guarantees.

Authorities responsible for the exchange of sanitary and phytosanitary (SPS) certificates are interested in how electronic SPS certification (SPS e-Cert) can be used to enhance national SPS systems and facilitate safe trade. A number of developed and developing countries have started adopting SPS e-Cert. Based on their experiences, e-Cert can be helpful in improving efficiency and security, cutting clearance times and reducing transaction costs. Results also demonstrate that, to be successful, optimal paper-based systems first need to be in place to effectively transition to paperless trade.

The e-Cert approach

Internationally-recognized standards facilitate the exchange of electronic SPS certificates by harmonizing requirements and exchange frameworks, reducing the resources required for trading partners to have bilateral arrangements. SPS e-Cert is a UN/CEFACT² standard for the secure electronic transmission of SPS certification data from the competent authority of the exporting country to the competent authority of the importing country.

At borders, SPS e-Cert can reduce the amount of time spent on paper processing and transmitting of SPS data, as well as the costs of sorting, distributing, retrieving and archiving paper certificates. Importantly, it also decreases fraudulent certificates and increases transparency around issuing, re-issuing and receipt of certificates by relevant authorities.

¹ UN ESCAP, 2014

² United Nations Centre for Trade Facilitation and Electronic Business

e-Cert at a glance³



e-Cert in action: Kenya's journey

Experiences on the ground in a number of developing countries highlight how SPS e-Cert improves compliance with regulations and policies, reduces errors and fraud, supports risk management and builds trust.

In Kenya, since the launch of its electronic phytosanitary certification system in 2011 until June 2016, more than 892,000 digital phytosanitary

certificates have been issued. This has helped to increase government revenue by 75%. At the institutional level, competence and capacities were enhanced leading to more efficient services delivery. At the industry level, time savings were recorded, as well as improvements in communication. At the international level, Kenya's SPS reputation improved, with higher levels of trust among trading partners and greater confidence in the authenticity of certificates issued by the Kenya Plant Health Inspectorate Service (KEPHIS).

Going paperless works⁴

<p>Integrity</p>	<ul style="list-style-type: none"> ▪ Electronically secured certificates ▪ Cross-checking in real time ▪ Single national register of certificates
<p>Efficiency</p>	<ul style="list-style-type: none"> ▪ Faster processing through pre-validation ▪ Single view of all relevant information ▪ Simple maintenance of forms
<p>Security</p>	<ul style="list-style-type: none"> ▪ Very difficult to forge ▪ Online verification for third parties ▪ Searchable database with all certificates
<p>Time</p>	<ul style="list-style-type: none"> ▪ Computer-assisted application preparation ▪ Faster processing cuts export time ▪ Faster management through real-time status

³ Ministry for Primary Industries, New Zealand: www.foodsafety.govt.nz/industry/exporting/e-cert/animal-products

⁴ Implementing UN/CEFACT e-Business Standards: www.unescap.org/resources/unnext-handbook-implementing-uncefact-e-business-standards-agricultural-trade

Impact on inclusive trade

A lack of certainty in the issuing and acceptance of SPS certificates is a barrier to inclusive trade. Around 43% of exporters from developing countries have identified the issuing and acceptance of SPS certificates as a constraint for micro, small and medium-sized enterprises (MSMEs) to participate in e-commerce⁵. As such, SPS e-Cert, with its online application, faster processing and clearance times, and lower travel costs, can drive more inclusive trade, particularly for MSMEs. Women traders, who face particular barriers in cross-border trade, are also more likely to benefit.



Guiding the way on e-Cert

The international standard-setting bodies in the WTO SPS Agreement, which sets out the basic rules on food safety and animal and plant health requirements, – Codex, OIE and IPPC – have developed guidance to support the use of SPS e-Cert. The IPPC has adopted a standard with detailed guidance for contracting parties on electronic phytosanitary

certification (ePhyto), including on format and content and the mechanism for exchange and guidance on harmonized codes and schemas.

The Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS) has put in place an electronic Working Group to assess and review existing guidance on electronic certification. The OIE is at an early stage of reviewing gaps in standards and guidelines on electronic certification.

The ePhyto Solution

"The STDF work on electronic certification and the ePhyto project offered the impetus for the World Bank and IPPC Secretariat to deepen their collaboration on SPS capacity building and trade facilitation."

Bill Gain, World Bank Group

A number of IPPC contracting parties have made progress in developing systems for the electronic exchange of phytosanitary certificates. This required significant resources to develop electronic tools to produce and receive certificates and negotiate agreements with trading partners.

An STDF funded project⁶ is supporting developing countries, without an existing national system, with a simple generic ePhyto national

system (GeNS) capable of producing, sending and receiving electronic phytosanitary certificates. It will set up a harmonized exchange tool, or hub, to facilitate electronic exchange based upon a single communication protocol, cutting both cost and complexity.

These two systems make up "the ePhyto Solution," which aims to make it easier for countries (especially those with limited resources) to start transmitting electronic phytosanitary certificates. This will be the case for export consignments and to receive certificates for imported consignments, facilitating the safe trade of plants and plant products and improving access to food. The ePhyto Solution is compatible with existing border information management systems and aims to build on these where possible.

The project further increases public-private cooperation by involving various stakeholders at the international standard setting level (including CITES, UNCTAD and WCO, among others). Donor agencies involved in capacity building, industry associations, led by the International Grain Trade Coalition, and private companies are also partnering in efforts to pilot test and refine the ePhyto Solution before it is scaled up.

⁵ OECD-WTO Aid for Trade Survey, 2017

⁶ www.standardsfacility.org/PG-504

The STDF vision

The STDF is working to advance the Sustainable Development Goals through its vision:

Sustainable economic growth, poverty reduction, food security and environmental protection in developing countries



STDF's SPS e-Cert seminar⁷

"The Seminar succeeded in raising awareness among developing countries about the opportunities and risks related to the implementation of electronic SPS certification systems".

Suzanne Sabourin, Canadian Meat Council

The STDF's seminar in June 2016 reviewed the state of play of SPS e-Cert in developing countries and recommended priorities for capacity building. Over 150 experts from governments, international organizations, industry associations and global business discussed the latest knowledge, good practices and trends on existing automated systems worldwide. The event raised ongoing challenges and needs on how to support developing countries to effectively automate SPS cross-border procedures.

The e-Cert opportunity: moving ahead

An effective paper-based certification system needs to be in place, with adequate institutional capacity and clarity on roles and responsibilities, to be able to move to an electronic SPS certification system. The first step is a comprehensive analysis of SPS and other export/import business processes to identify the needs, as well as the expected costs and benefits of automated systems. A decision to invest in an e-Cert system should be made after examining the costs and benefits involved.

Successful roll out of SPS e-Cert requires political will, effective communication and collaboration across SPS authorities, as well as with other areas of government, and the private sector. Adequate IT infrastructure and capabilities are vital. SPS e-Cert has the most potential where there is a mature export/import sector for adequate cost recovery systems and good private sector engagement.

As governments and business transition to paperless documentation, greater public-private sector co-operation is critical to make sure that data flows are harmonized and can be rolled out seamlessly between governments, from business to government and from business to business worldwide.



⁷ www.standardsfacility.org/SPS-eCert

IPPC ePhyto Solution

IPPC ePhyto Video



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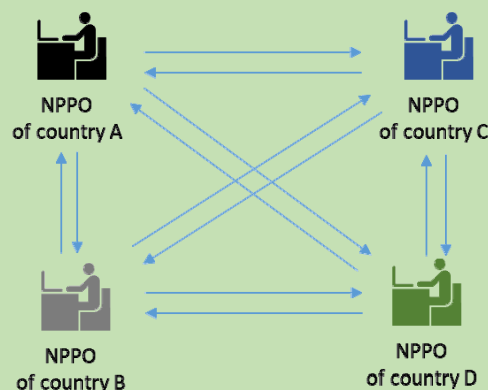
International Plant
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1

In the beginning...

- **Point-to-point:**
- Directly between NPPOs
- Inefficient
- Separate bilateral arrangements with each country to facilitate exchange
- High costs for establishing (@\$40K-120K per connection)
- Annual costs (\$20K-100K) for maintaining all the connections



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2

Why ePhyto?

- Inefficient –
 - Labor intensive
 - Highly manual with paper being couriered around the world
 - Data re-entry multiple times
- Re-issuing of paper phytosanitary certificates leads to:
 - Delays
 - Increased costs
 - Loss of commodity
- Mountains of paper are produced, printed, stored, and destroyed annually



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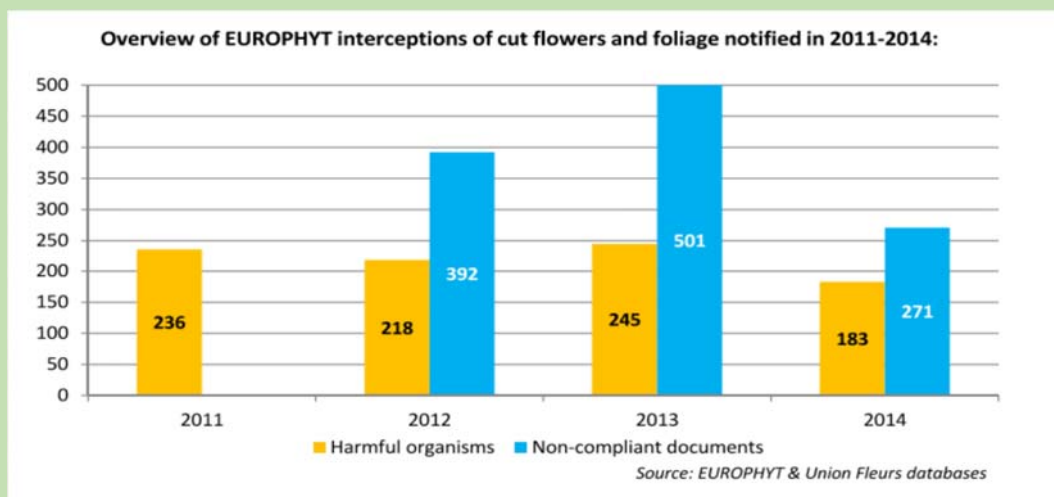


3

Protecting the world's plant resources from pests

Why ePhyto? An example

Non-compliant documents trigger a higher number of rejections than actual plant health issues:



International Plant Protection Convention
Protecting the world's plant resources from pests



4

IPPC ePhyto Solution

- 3 main components:
 - HUB
 - Centralized system to facilitate exchange between NPPOs
 - Single message format
 - Standardized
 - Generic ePhyto National System
 - Web based system
 - Only requires computer and internet
 - Any participating country automatically connect to Hub exchange
 - Harmonization
 - Ongoing
 - Leads to further automation



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IPPC ePhyto Solution

- Only project of its kind among the three SPS “sisters” (IPPC, Codex, OIE)
- Allows developing and developed countries to participate
- Initial funding from the STDF, augmented with resources from Contracting parties and the World Bank



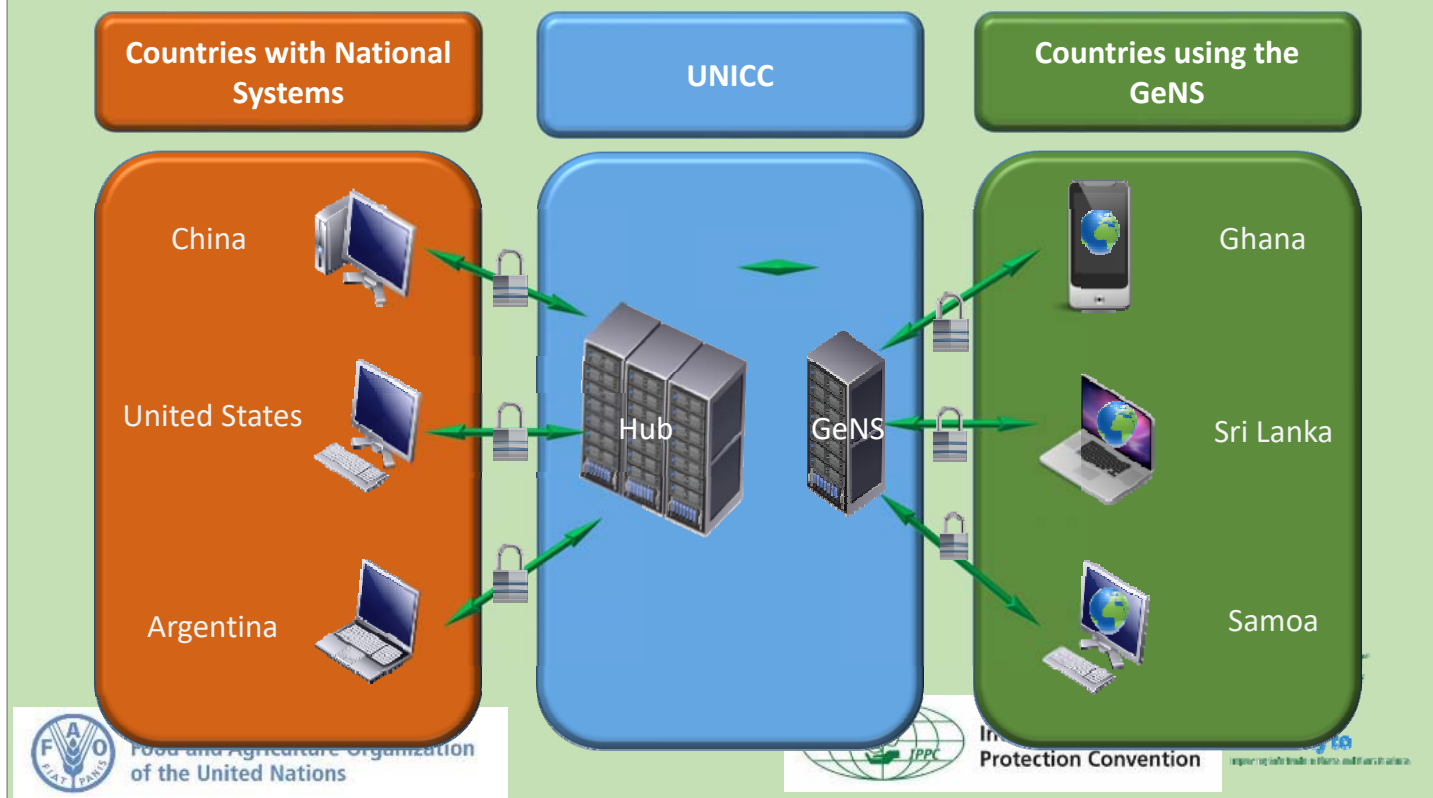
Food and Agriculture Organization
of the United Nations



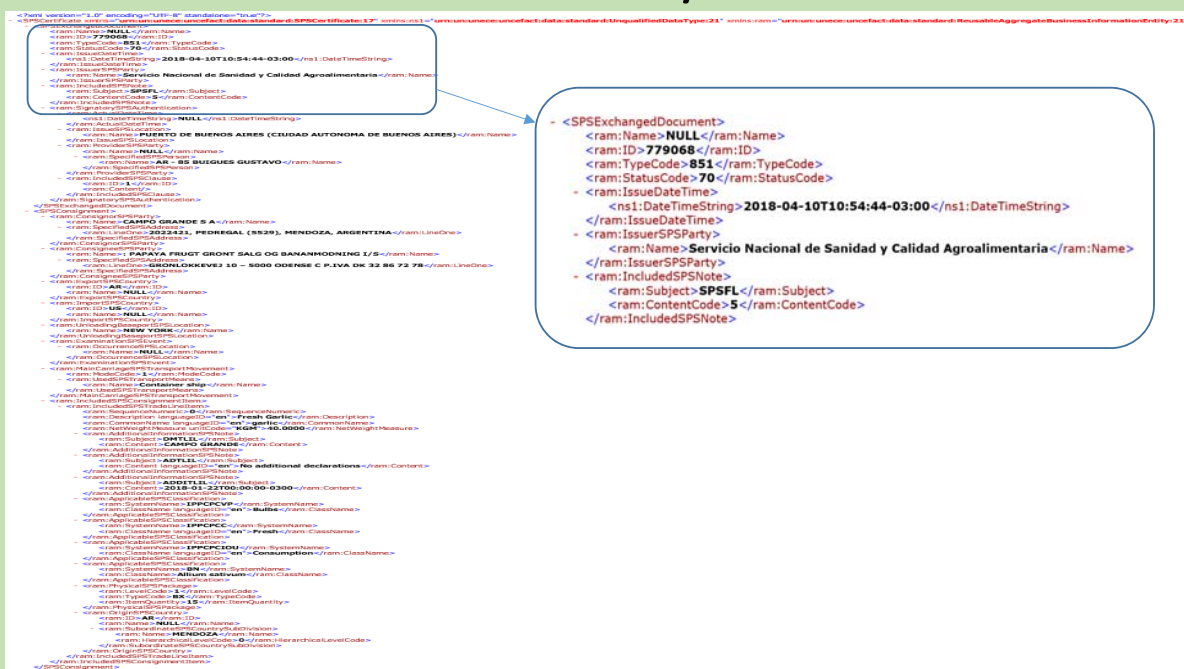
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Hub and GeNS



AR – ePhyto



Paper Representations

AR

US

CERTIFICADO FITOSANITARIO
PHYTOSANITARY CERTIFICATE

N° 779068

DE Organización Nacional de Protección Fitosanitaria de ARGENTINA
OFICIAL AUTORIZADO / AUTHORIZED OFFICER

NAMA Organización Nacional de Protección Fitosanitaria de ESTADOS UNIDOS
UNITED STATES
NATIONAL PLANT PROTECTION ORGANIZATION

DESCRIPCIÓN DEL ENVÍO / DESCRIPTION OF THE CONSIGNMENT

1. Nombre y dirección del exportador
Name and address of the exporter
CAMINO GIMANE S.A.
2023421, FEDERAL (5529), MENDOZA, ARGENTINA

2. Nombre y dirección del importador
Name and address of the importer
PARAYA FRESH GARAGE SALUD ON BROADHOODING RD
(LACHSROADVY) 10 - 5000 COENNA C P.A.VA DE 32 84 72 78
ARGENTINA

3. Medio de transporte declarado
Declared means of conveyance
Marítima - Container ship

4. Cantidad declarada
Declared quantity
40.000 kg

5. Nombre de producto, número y descripción de bultos
Name of product, number and description of packages
15 cajas de Ajo Francés
15 box of Fresh Garlic

6. Lugar de origen
Place of origin
MENDOZA

7. Nombre botánico de la planta
Botanical name of plant
Allium sativum

8. Lugar de origen
Place of origin
MENDOZA

9. Mercancías distintas
Distinctive marks
CAMINO GIMANE

10. Por el presente se certifica que las plantas, productos vegetales u otros artículos reglamentables descritos aquí han sido inspeccionados y encontrados libres de plagas, enfermedades, o de otros organismos de origen animal que constituyan plagas reguladas y que cumplen con los requisitos fitosanitarios exigidos por esta. Se declara que la mercancía a granel no constituye un riesgo fitosanitario.
This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate procedures and are considered to be free from the quarantine pests, specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party including those for regulated non-quarantine pests.

11. Sin Declaraciones Adicionales
No additional declaration
Fecha de inspección 22-marzo-2018
Inspection date 22-january-2018

12. Tratamiento de desinfección y/o desinfestación / DISINFESTACIÓN Y/O DESINFESTACIÓN TREATMENT

13. Producto químico y concentración (ing. activo) / Chemical and concentration (active ingredient)

14. Duración / Duration

15. Temperatura / Temperature

16. Fecha / Date

17. Información adicional
Additional information

Lugar y fecha de expedición
Place and date of issue
CIUDAD AUTONOMA DE BUENOS AIRES, 22-marzo-2018
CIUDAD AUTONOMA DE BUENOS AIRES, 22-january-2018

Oficial autorizado
Authorized officer
AR - 85 - BURGUES GUSTAVO

CUVE Nº. 779068

PCIT Generated Foreign Certificate
Derived from Electronically Supplied Data

FOR OFFICIAL USE ONLY

PHYSANITARY CERTIFICATE

PHYSANITARY CERTIFICATE

DATE RESPECTED
April 10, 2018

TO: THE PLANT PROTECTION ORGANIZATION(S) OF United States

CERTIFICATION

This is to certify that the plants, plant product or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests, specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party including those for regulated non-quarantine pests.

DISINFESTATION AND/OR DISINFESTATION TREATMENT

TREATMENT DETAILS

DESCRIPTION OF THE CONSIGNMENT

1. NAME AND ADDRESS OF EXPORTER
CAMINO GIMANE S.A.
2023421, FEDERAL (5529), MENDOZA, ARGENTINA

2. DECLARED NAME AND ADDRESS OF THE CONSIGNEE
PARAYA FRESH GARAGE SALUD ON BROADHOODING RD
(LACHSROADVY) 10 - 5000 COENNA C P.A.VA DE 32 84 72 78

3. NAME OF PRODUCE AND QUANTITY DECLARED
(1) garlic (Shallot) 40,000 kilograms

4. BOTANICAL NAME OF PLANTS
(1) Allium sativum

5. NUMBER AND DESCRIPTION OF PACKAGES
(1) 15 Box

6. DISTINGUISHING MARKS
(1) CAMINO GIMANE

7. PLACE OF ORIGIN
(1) MENDOZA

8. DECLARED MEANS OF CONVEYANCE
Container ship (Maritime transport)

9. DECLARED POINT OF ENTRY
NEW YORK

ADDITIONAL DECLARATION

No additional declaration

Page 1 of 1

10. DATE ISSUED
April 10, 2018

11. INSPECTOR
AR - 85 - BURGUES GUSTAVO

12. NAME OF AUTHORIZED OFFICER (Type or name)
AR - 85 - BURGUES GUSTAVO

No financial liability with respect to this certificate shall attach to Servicio Nacional de Sanidad y Calidad Agroalimentaria or to any of its officers or representatives.

Standardized format leads to easier document review.



International Plant Protection Convention



empowering trade in plants and forest products

Protecting the world's plant resources from pests

Recent Highlights

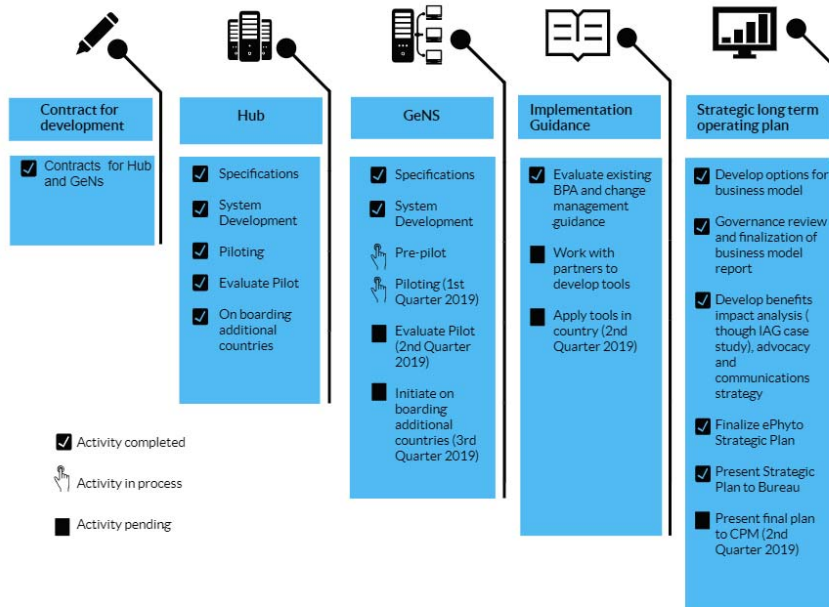
- HUB fully operational since June
- Argentina, Chile, Netherlands, New Zealand, and US
- 27 other countries in various stages of connecting
- Generic ePhyto National System (GeNS) pilot began in Fall 2018
 - Sri Lanka, Samoa, and Ghana
- July 2018 - G-20 Agriculture Ministers endorsed the IPPC's efforts on ePhyto
- Latin America (18 countries represented)
- Asia Pacific (28 countries represented)
- Early industry case studies (9)
 - Time savings: 1-2 hours up to 1-2 days
 - Cost savings: \$25-100 per shipment



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Protecting the world's plant resources from pests



EPHYTO DEVELOPMENT TIMELINE



International Plant Protection Convention
Protecting the world's plant resources from pests



Food and Agriculture Organization of the United Nations



International Plant Protection Convention



empowering safe trade in plants and their products

Sea Containers Task Force Update

Shane Sela
Quarantine Regulators Meeting
April 10 2019



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Risks Associated with Movement of Sea Containers and their Cargoes

Sea containers and their cargoes are potential high risk
pest pathway

Management requires cooperation different stakeholders
in the transport chain

Understanding of the logistics is key to understanding
where interventions can be made



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Complexity of sea container flows

Ideal situation

- Imports and export volumes are balanced
- Move from ship to port to receiver to depot to shipper to port to ship...

Reality

- Import and export volumes are not balanced
- Containers movements are dynamic
- Move directly from importer to exporter to port to ship
- Empty containers may move from container depot to ship to shipper ...



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Sea Container Flows

Complex

Involve multiple transport modes

Border crossings and control points

Empty containers despatched from a repair/depot under the control of a shipping company should be clean

Not all containers pass through a repair/depot

Pack points are the most likely points for contamination
BUT shipping companies have no control over these



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IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU Code)



- Produced by International Maritime Organization (IMO), International Labour Organization (ILO), The United Nations Economic Commission for Europe (UNECE) in cooperation with industry;
- Approved in 2014
- Voluntary, best practice guide
- Actions directed at the shipper and packer



IPPC and CTU Code

The most important paragraph in the CTU code relevant to the IPPC community:

"All persons involved in the movement of CTUs also have a duty to ensure, in accordance with their roles and responsibilities in the supply chain, that the CTU is not infested with plants, plant products, insects or other animals."

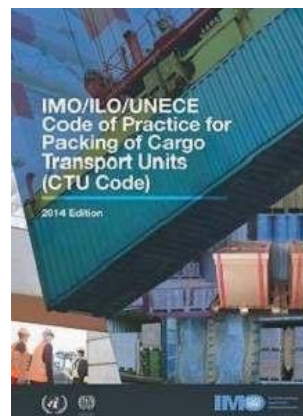
CPM-10 (2015) Recommendation: Sea containers (R-06)

"The packing of sea containers with cacao is the most likely stage in the sea container supply chain at which contamination can occur"



Joint Industry Guidelines for Cleaning of Containers

- Produced by:
 - World Shipping Council (WSC)
 - Institute of Container Lessors (IICL)
 - Container Owners Association (COA)
 - International Cargo Handling Coordination Association (ICHCA);
- Purpose – assist in minimizing the movement of pests by sea containers and their cargoes
- Complementary to CTU Code
- Apply when the container is in operator's direct control
 - At container depot.



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Joint Industry Guidelines

- Contain recommendations on cleaning methods for various types of visible pest contamination
- Encourages contact with the local National Plant Protection Office (NPPO) if in doubt
- Does not replace national measures/requirements
- Does not replace and is additional to industry guidelines regarding non-pest contamination of containers.



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Sea Containers Task Force (SCTF)

Supervise and direct the implementation of the Sea Containers Complementary Action Plan

Action plan endorsed by CPM 12

SCTF overseen by the IPPC Implementation Committee (IC)

The SCTF will operate for a temporary period (2021)



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SCTF key tasks

1. Measuring the impact of the CTU Code

- Joint IPPC/IMO/Industry protocol for the collection of data on contamination
- Monitoring uptake and implementation of CTU Code
- Verifying the efficacy of the CTU Code



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SCTF Key Tasks cont' d.

2. Increasing awareness of pest risks of sea containers

- Publication of the data of the (previous) Sea Container EWG
- Collecting national data on contamination and make it available
- Publication of pest risk management guidance
- Encouraging NPPOs to inform industry of risks and international actions to mitigate pest risks



SCTF Key Tasks cont' d.

3. Providing information on pest risks and management
4. Coordinating with contracting parties, regional plant protection organizations (RPPOs), industry and other international organizations
5. Establishing a mechanism for reporting progress and achievements
6. Providing advice on revision of CTU or other instrument to manage risk



SCTF Ongoing Actions

Monitoring uptake and efficacy of the CTU Code

- Sea container cleanliness surveys performed by NPPOs
- Industry monitoring of contaminated containers
- Engage industry at various forums
- Industry cleaning guidelines revision (e.g. Institute of International Container Lessors (IICL))
- Questionnaire to determine regulatory basis for NPPO container monitoring



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Sea Containers Questionnaire and Survey Guidelines

- Developed by SCTF
- Guideline provides guidance to NPPOs on how to inspect and record contamination
- Questionnaire
 - Collect data/information from NPPOs on sea container cleanliness
 - Assist in understanding legal/physical constraints for NPPOs
- Circulated to NPPOs
- Survey deadline of 16 August 2019



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SCTF Ongoing Actions

Encourage best practice sharing

Use of social media

Factsheets

WB providing technical assistance for managing risk of sea containers and implementing sea container survey

Encourage national alignment with IPPC framework and CTU Code guidelines.



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More info

The screenshot shows a web browser window displaying the IPPC website. The address bar shows the URL: <https://www.ippc.int/en/core-activities/capacity-development/sea-containers/>. The page header includes the FAO logo and the text "Food and Agriculture Organization of the United Nations" on the left, and the IPPC logo and "International Plant Protection Convention" on the right. A search bar is located in the center of the header. Below the header, there is a navigation menu with options: Home, Core Activities, Standards & Implementation, Implementation and Facilitation, and Sea Containers. The main content area is titled "Sea Containers" and contains two paragraphs of text. The first paragraph discusses the IPPC Guidelines on Sea Container Surveys for NPPOs, and the second paragraph discusses the IPPC factsheet on Sea Containers Cleanliness. A right-hand sidebar contains a "Help" button and a list of "Core Activities" including Governance & Strategies, Standards & Implementation, Standard setting, Implementation and Facilitation, Implementation and Capacity Development Committee (IC), Consultation on IC Sub-groups draft Terms of Reference and draft Rules of Procedure, Procedure Manual for Implementation and Capacity Development, Implementation and Capacity Development Guides and Training Materials, and Phytosanitary Capacity Evaluation (PCE). The Windows taskbar at the bottom shows the time as 2:18 PM on 4/9/2019.



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附件19、Workshop - Innovation and future of biosecurity



Australian Government
Department of Agriculture
and Water Resources



BIOSECURITY
INNOVATION



Biosecurity Innovation in Australia

Presented by:

Stephen Peios

Compliance Partnerships, Compliance Division
Department of Agriculture and Water Resources

10-12 April 2019



Australian Government
Department of Agriculture
and Water Resources



BIOSECURITY
INNOVATION



Australia's Biosecurity System

- Australia's biosecurity system is complex, and trade patterns and volumes are changing
- Biosecurity risk is growing and we need to do things differently
- Research and innovation underpins our efforts to meet these challenges



Potential costs of pest/disease incursions



\$1.5 billion – potential impact of fire ants in Australia per year, if left uncontrolled



\$4 billion – direct costs from production losses and management of established pests and weeds each year



\$5.2 billion – potential economic impact of a foot-and-mouth disease outbreak, each year until it is eradicated



\$2 trillion – potential cost to environmental assets due to Xylella – a bacteria known to affect iconic Australian species



\$53 million – potential loss of exports due to Khapra beetle each year, if it were to become established.

The cost of the world's worst pests and diseases establishing in Australia would be substantial



Australia's Biosecurity System


20.5 MILLION
arriving international passengers
at airports


840,000
arriving international passengers
at seaports


158 MILLION
international mail articles


41 MILLION
air cargo consignments


1.8 MILLION
sea cargo consignments



Biosecurity Innovation Exchange 2018

- In March 2018 the Exchange identified four initiatives to progress through targeted workshops
 - Gamification and citizen science
 - Next generation sequencing
 - Sensors and bionic technologies
 - Biosecurity innovation e-newsletter – [*The Seed*](#)



Biosecurity Innovation Program



- In June 2018 the Australian Government announced the Biosecurity Innovation Program
- \$25.2 million program over 5 years
- The Program aims to invest in identifying, developing and implementing innovative technologies and approaches to improve biosecurity



Areas of investment

14 projects to progress through the first year of funding, including:

- 3D X-rays
- eDNA technologies for pathogen detection
- Future traveller reform initiatives
- Gamification
- New targets for detector dogs
- Brown Marmorated Stink Bug (BMSB) sensing
- Digitising manual heavy processes
- Product traceability



Rapiscan RTT[®] 110 – 3D X-ray unit



- 3D scans of bags which will allow a more thorough view of items
- Capability to use algorithms to auto-detect risk items
- Currently investigating use for mail risk identification ongoing



New targets for detector dogs

- Biosecurity detector dogs have been helping protect Australia from pests and diseases since 1992
- New research to train detector dog fleet to identify the scent of Brown Marmorated Stink Bug



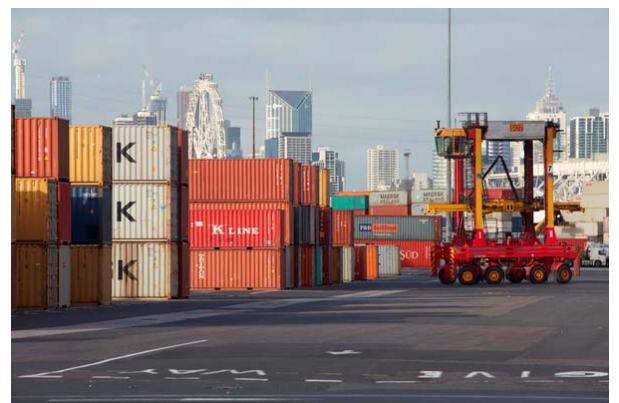
Business Research and Innovation Initiative

Round 1

On-the-spot technology for
measuring pyrethroid surface residue

Round 2

Managing the biosecurity risk of
hitchhiking pests and contaminants
on shipping containers





Innovation into the future



- Need to continue taking an innovative approach towards biosecurity
- Collaboration is key to innovation



附件20、OIRSA Regional risk analysis system



Agricultural Health and Food Safety Risk Analysis Regional System



*Nancy Villegas Biól. MSc.
Risk Analysis Regional Coordinator
OIRSA*



MINISTERIO DE
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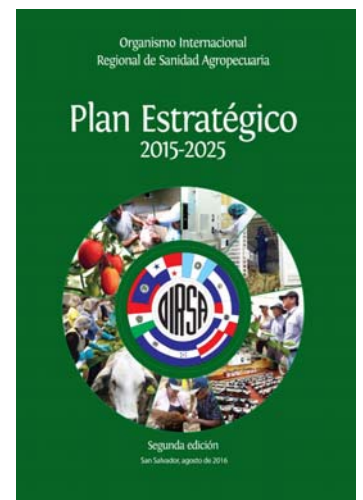


Background

Management and Evaluation

“Strengthen mechanisms to develop risk analysis in agricultural health and food safety and sanitary and phytosanitary measures that mitigate negative impacts”

... Objective: To improve the phyto-zoosanitary condition of the region.



*Risk Management Objective 3.5.3.1.
OIRSA Strategic Plan (2015-2025).*



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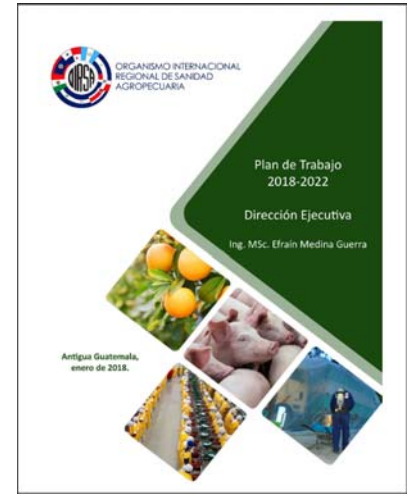




Achievements and Challenges 2014-2018

Workplan 2018-2022

“In collaboration with governments, academia, the productive sector and international organizations, the OIRSA has done important achievements in agricultural health and food safety ... among them: ... OIRSA as free area of Foot-and-mouth disease virus (FMDV) and screwworm myiasis; production of healthy citrus plants for planting free of HLB; effective control measures of flying lobster in El Salvador and Nicaragua, ... modernization of infrastructure and equipment in SITC quarantine treatment posts; implementation of the pilot project of non-intrusive inspection by canine units in Panama; ... and, finally, the implementation of the Regional Risk Analysis Unit”.



Agricultural Health and Food Safety Risk Analysis Regional System

Achievement....OIRSA has a Coordination of Risk Analysis as a transversal axis... what puts the Agency at the forefront at the international level

Scope: Plant health, animal health, food safety and quarantine services





Agricultural Health and Food Safety Risk Analysis Regional System

What is it?

Agricultural Health and Food Safety Risk Analysis Regional System of International Regional Organization for Agricultural Health (OIRSA), is the structure composed of the officials of the risk analysis units of the Ministries and Secretariats of Agriculture of the OIRSA Region, that manages the implementation and follows up the regional projects of risk analysis in the field of agricultural health and food safety; makes, communicates and recommends to the health authorities of the Member States the implementation of sanitary and phytosanitary measures resulting from regional risk assessments or analyzes to mitigate the identified hazards or threats.



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Pest Risk Analysis for Fusarium oxysporum f.sp. cubense race 4 Tropical (FocR4T, VCG 01213/16), quarantine pest for OIRSA region ver. 2.0 (2018)...

TG of Agricultural Health and Food Safety (SAIA, by its initials in Spanish)



*Achievement ...Two regional
Pest Risk Analysis
finished....*



Pest Risk Analysis of Trogoderma granarium Everts. Khapra beetle, quarantine pest for OIRSA region ver. 1.0 (2018)...

MAGA-Guatemala



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Training



Priorities 2019

Análisis de Riesgo



Training	Addressed to	Duration
Risks associated with imports (DRSC)	Official staff, SEPA y SITC.	June-July 2019
Pest Risk Analysis. Basic level	Risk analysts	May-June 2019
Pest Risk Analysis. Intermediate level	Risk analysts	September-October 2019



MINISTERIO DE DESARROLLO AGROPECUARIO



OIRSA List of regulated pests Plant Health

Priorities 2019-2020

Análisis de Riesgo



Pest Risk Analysis for *Achatina fulica* Giant African land snail



Risk Analysis of weed seeds like pollutants in the import of grains

Risk Analysis Foot-and-mouth disease virus (FMDV)



MINISTERIO DE DESARROLLO AGROPECUARIO





Análisis de Riesgo



Thanks!!!

*Nancy Villegas Biól. MSc.
Risk Analysis Regional Coordinator
OIRSA*