附件15



# Trading in a Digital Evolution







Matt Moore Director | eCert & Micor

# **Discussion today**

### Part 1 -

*High level overview of what's in part 1 presentation* 

### Part 2 – Q & A

High level overview of what's in Part 2 for the Q & A.

Also can be a space for any other questions or discussions other participants may like to raise or discuss on the topic of "Trading in a digital evolution

# **Trade has changed**

- The growth of technology solutions and the impact of the COVID-19 pandemic, has caused a rethink in how we share information.
- How can we be more efficient and get the same outcomes if not better results?
- What options are available to us?
  - Who has done this before?
  - Are there any agreed standards?
  - What is the end goal?



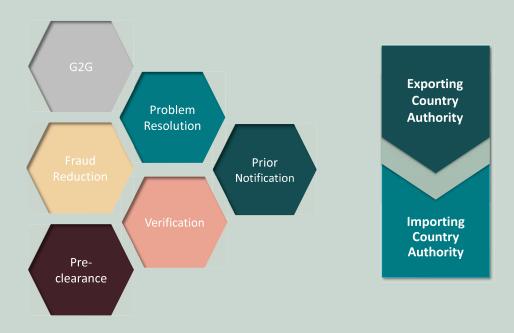
### **Guidance and Standards** World Organisation The Codex Alimentarius International Plant for Animal Health Commission (Codex) Protection Convention (IPPC) Founded as OIE Food and Agriculture International World Organisation for Animal Plant Protection Organization of the Health (WOAH) Convention United Nations World Trade Organization (WTO) The United Nations Centre for **Trade Facilitation and Electronic** Business (UN/CEFACT) The Organisation for Economic Standards and Trade **Co-operation and** UNECE **Development Facility (STDF)** Development (OECD) JN/CEFACT

# **Electronic Certification (eCert)**

- eCert is the secure electronic data transmission of SPS certificates
- eCert expansion is ongoing in both bilateral and multilateral forums
  - Objective is paperless certification
- Streamline the certification process for the Government and Business
- Supports the use of technology in other areas of border clearance



# **Benefits of eCert**



# Government to Government (G2G) and Fraud Reduction

The G2G nature of eCert means it can provide the assurance that:

- The certificate came from the listed Competent Authority
- It is a genuine certificate

Going paperless reduces the opportunity for fraudulent activity.

- Paper certificates can be replicated and presented as genuine certificates
- This provides an opportunity for unapproved goods to enter a country
- Being paperless removes the risk of goods entering a country on the presentation of fraudulent paper documents.

# **Prior Notification and Pre-Clearance**

- eCert provides importing authorities knowledge of what will be arriving, potentially within minutes of a Competent Authority issuing the certificate.
- This prior notification provides the opportunity for the pre-clearance of goods.

Where goods may not require an inspection or only in certain circumstance, once receiving the eCert the importing authority/system may be able to grant pre-clearance before the goods arrive.

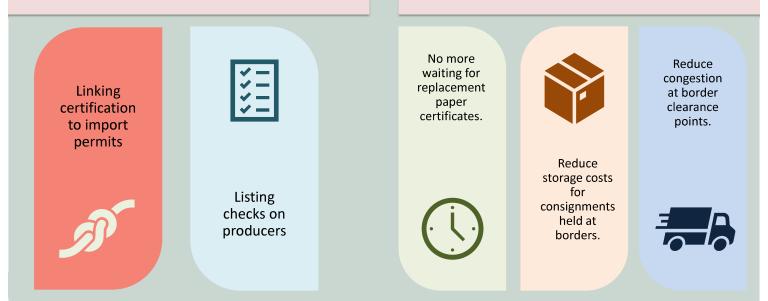
• Prior notification allows Competent Authorities the opportunity to use their work force in a more target way.



# **Verification and Problem Resolution**

Different elements of certificate verification can be used such as:

eCert can assist to resolve common paper certification problems. For example:



# Considerations for any move to digital



# Learnings

- The first steps are the hardest, but you can get momentum quickly with proper planning.
- Don't over complicate it. More is not always better.
- Be aware that Legislation, rules, policy and business process may need to change.
  - Identify these early as part of the planning.
- Important to understand who you are working with, and whether there are multiple stakeholders.
  - Some countries have split their biosecurity and export functions across multiple agencies.
  - There may be multiple stakeholders in the one country who are involved in the import and clearance of a single consignment.

# **Always Evolving**

- eCert is a great example of digital possibilities
- Digital growth changes our conversations
- Moving to digital doesn't mean changing requirements
- IT will always move at a fast rate and that's ok.
  - Technology is always developing and evolving at a fast pace.
  - This means we need to consider when it is good to use and when is it overcomplicating?
- Linkages to other systems
  - Single trade windows
  - Domestic systems





- What do you see is a crucial factor for a successful digital future?
- How do you see the work currently ongoing within the standard setting space, impacting the work which countries have already done in the digital space/currently building?



# Thank You



附件16



### Treatment Certificate Portal and Risk Profiling

2024 QRM



Sam Griffiths Australian Department of Agriculture, Fisheries and Forestry

# Context

- International trade is underpinned by effective biosecurity treatments
- Particularly for fumigation, the biggest risks for an ineffective treatments:
  - Incorrect treatment schedule (rate, temperature, time) applied
  - Consignment not suitable for treatment
  - Inaccurate, incomplete or false concentration monitoring readings
- Largely this is driven by:
  - Lack of capacity or capability to comply with requirements (inadvertent)
  - Commercial disincentives to comply (deliberate and fraudulent)

# **Treatment documentation**

		IENT DETAILS	
Goods description:	15		Quantity: 49
Consignment link			
Country of origin:	Port of loadin		Country of destination:
Name and address of exporter:		Name and address	Australia
vanie and address of exponen.		Name and address	or importer.
-			
<del>,</del>			
	TREATME	NT DETAILS	
Date fumigation completed: 2024 / 04	4 / 23	Time fumigati	ion completed: 07:00
Date ventilation commenced: 2024 /	04/23	Time ventilati	on commenced: 07:05
Town/city fumigation		Exposure per	iod (hours): 14
Dose rate applied ( 🗐 g/m³ or 🗍 oz/1	1000ft <sup>3</sup> ): 24	Minimum tem	perature ( X C or C *F): +10
Lowest end-point reading (X g/m <sup>3</sup> or			ding (ppm): 1,0 (TGRS 512)
0 20/ <del>110</del> /1			
How was the fumigation conducted?	_	eted container	Sheeted container/s
	Chamb	er	Sheeted stack
Were the goods treated in the contai	ner they will be shi	pped in X	Yes or
			No (No, includes break-bulk goods
Container number:			or not applicabl
Was a container seal applied by the	treatment provider	within 120 hours of	the treatment
completion? If yes - Seal number:			X Yes or N
as all shipping packaging/wrapping	removed or configu	ured in a way that al	lowed
e fumigant to access all surfaces of t			Yes or No or X N
elect NA if shipping packaging was r	tot present at the t	me or treatment)	
as all commercial packaging applied			
elect NA if commercial packaging wa	as not present at th	e time of treatment)	X Yes or No or N
	DECLA	RATION	
declare that all information on this ce			
eatment has been conducted in acco ethodology	irdance with the Su	Ifuryl Fluoride Fumi	gation X Yes
ethodology			
	ADDITIONAL D	ECLARATIONS	

	112221-	_			20031000			100 - 10 - 10 - 10 - 10 - 10 - 10 - 10		-	
Job D	5336 Same		-								
Job Identification Customer Name						Start Dat 2024-04-2		migation	Location		
227.2					2024-04-2	a		-			
	tion of Con								-		
	ervice parts -	49 pcs									
	of Fumigati	on	_	-	_	Containe	r Numt	iers / Consig	nment Identi	licatio	m
-	ervice parts					-					
Fumin	ation Det	ails		-	-	-	_			_	
1000	Contraction of the second s	Seller	nina remaver	or configured	in a way	that allowed t	the				
furrigant	to access all	surfaces of	the goods?	nt at the time o			nice.		☐ Yes		IO NA
Was all o (seinct h	ommercial pr 14 if commerce	ackaging app ial packagin	blied as part o g was not pre	f the goods ma sent at the time	inufacturi e of trisab	ng process? nent)			[AYes		o NA
Shee	eted Stack		Ler	igth =				-sheeted	Vo	lume	(m <sup>2</sup> )
FISher	ted Contai	anala	in.	sth =					711		
- Current				20 2			Ch	amber	7674		
Size: _	40	any: 6/	C Hei	ght =	_						
Specifie	d Dose Ra	ite	Exposure	Period		Forecast	Minimu	im Temp	Fumigation (if heated)	n Mini	imum Temp
	)	g/m²		11			0	°C	(		
Calcula	ted Dose	e Burg.	Actual Dose Applied			1 O °C Time Dosing Finished					
			(calculated do	(qui bolinuon sa							
	18.33			000.		16	:51	(			
Conce	ntration F	Readings									
Phase	Time of	Dose		Monitor Li	ne Rei	adings by Location			Equilibrium		Top-up
Thuse	Reading	rate g/m²		2:	3:	4:	5:		Calculat	on	Dose
Start	1710	24	25	29	5	9	_		42	%	NA
Call									40,	%	NA
During		NA	-						NA		
		NA		-	-	-			NA		_
End	07100	12	13	14	1	2	_		NA		NA
Comme	ents				-		_		NA		NA
Ventila	ation		-	-	-		_	1000	-	_	-
- Case (122)	mmenced		Date com	menced		Final TLV	Ineadin	0	Date & time	a rear	ting taken
	10.5				3			g ppm	20200	67	s of
_	ator in Ch			ALC: NO	Paris C			Officer (if su		10 10	
	and all of	11.90	Signature			10000	mente c	vincor (il st			
Name						Name			Signature		

**Certificate Portal** 

Australias Government Department of Agriculture, Photoca and Facility	rms Portal	
tome   Submit Treatment Details   Summary of Treatments	Summary of Submissions	Ketey Coller -
ture > Bineculty > Trainents > 002 forms > Bineculty Tw	etment Lodgement	
Biosecurity Treatment Lodgement		
ADI: 0900015		
Treatment Certificate Humber 10	Treatment Let Identifier O	
Consignment Link Type "	Diher 1	
Country of Treatment *		
	~	
Easiers for Traditional *		*
Select or search options		

External facing

Departm

- Multi Factor Authentication
- Secure comms channel with TPs



- Level 1
- Data validation
- Data only from
- trusted/approved sourcesNo invalid data

SeaPest

-484-	Flags	Treatment Completed	AEI ID	Certificate No	Consignment Li	Consignment No
Australian Geverament Department of Agriculture, Flaheries and Farrowy	1 <b>W</b> (	01/09/2019, 12:55	AE40015B	SAMPCS/HTC/	Container Number	MRSU3725208
Seasonal Pest	w	07/09/2019, 12:50	AE400158	SAMPCS//HTC	Container Number	TCKU6937057
(Relate 447)		14/09/2019, 12:50	AE400158	SAMPCS/HTC/	Container Number	MRKU4866384
Home		25/09/2019, 13:00	AE4001SB	SAMPCS/HTC/	Container Number	MRKU4836590
Treatment Certificates		02/10/2019, 14:10	AE400158	SAMPCS/HTC/	Container Number	TGHU8374961
Container Assessment		16/11/2019 13:15	AF4001SR	SAMPCS/HTC/	Container Number	SUDU8550466
Container Status		10/09/2020, 12:56	AE4001SB	SAMPCS/HTC/	Ocean Bill of Lading	B/L NO # DKJ2008.
■ Reporting		27/10/2020, 12:16	AE4001SB	SAMPCS/HTC/	Ocean Bill of Lading	11110008540
CS Update		05/12/2020, 12:12	AE4001SB	SAMPCS/HTC/	Other	INVOICE NO.: IE-E.
Configurations		05/12/2020, 12:11	AE400158	SAMPCS/HTC/	Container Number	OOLU1030563

Internal facing

Level 2

Transaction automated

compliance assessment

to manage at border

promote voluntary

compliance

Identify risk consignments

Provide feedback to TPs to

Business rules to assess transactional compliance

### **Power BI T3 Model**

3



• Data analytics

- Systemic non-compliance detection
- + 2 C
  - Systemic analysis of TPs Identify deliberate noncompliance and fraudulent behaviour



Level 4

- Look at the whole system, take information from Level 1-3 and rank the Treatment Provider by **risk rating**
- Helps work out where we need to direct resources







# Offshore BMSB Treatment Providers Scheme

- Established in 2018 with NZ MPI
- Government-to-industry
- 220+ registered treatment providers
- Mandatory use of the treatment certificate portal



5

Department of Agriculture, Fisheries and Forestry

## **Treatment Certificate Portal**

Consignment information

Australian Government Department of Agriculture, Fisheries and Forestry		
Home Submit Treatment Details Summary of Treatments Summary of Su	ubmissions Sam (	m Griffiths 🗸
Home > Biosecurity > Treatments > OTP Forms > Biosecurity Treatment Lodgement		
Biosecurity Treatment Lodgement		
AEI: CP0000TS		
Treatment Certificate Number *🚯	Treatment Lot Identifier 🚯	
QRM2024	1	
Consignment Link Type *	Container Number *	
Container Number 🗸	Demo1234567	
Country of Treatment *	Goods Description *	
Andorra 🗸	Engine and machinery parts	
		7

## **Treatment Certificate Portal**

Target and shipping information

Reason for Treatment * BMSB ×			
Target of Treatment *			
Goods ×			
Enclosure Type *			
Sheeted Container	~		
Shipment Method *		Seal Number	
Containerised	~	123456	
Treatment Type *			
Methyl Bromide	<b>x</b> Q		

# Treatment Certificate Portal

umigation Treatment Details	
Temperature Unit *🚯	
Celsius	~
Minimum Temp Achieved *🚯	
17	
Treatment Duration Unit *	Treatment Duration *🚯
Hours	▶ 12
Dose Rate Specified *8	Dose Rate Applied * 🚯
24	24
Initial Concentration Timestamp *🚯	
31/03/2024 7:03 AM	î
Initial Concentration 1 * 🚯	Initial Concentration 2 🚯
32	32
Initial Concentration 3 🚯	Initial Concentration 4 0
31	
Initial Concentration 5 🚯	Initial Concentration 6 🚯

## **Treatment Certificate Portal**

### Treatment details

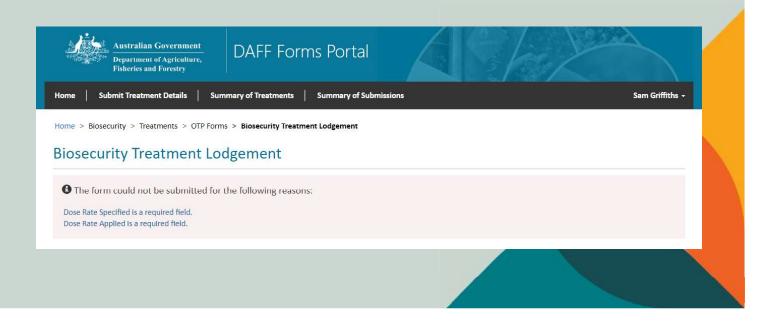
Fumigation Treatment Details		
Temperature Unit *3		
Celsius 🗸		
Minimum Temp Achieved *🚯		
17		
Treatment Duration Unit *	Treatment Duration *🕄	
Hours	12	
Dose Rate Specified *	Dose Rate Applied *🕄	
24	24	
Initial Concentration Timestamp *🕄		
31/03/2024 7:03 AM		
Initial Concentration 1 *🚯	Initial Concentration 2 🚯	
32	32	
Initial Concentration 3 🚯	Initial Concentration 4 🚯	
31		
Initial Concentration 5 🚯	Initial Concentration 6 🚯	No.

# **Treatment Certificate Portal**

inal Concentration Timestamp *🚯			
31/03/2024 7:34 PM	Ĩ		
inal Concentration 1 *		Final Concentration 2 🚯	
15		16	
inal Concentration 3 🚯		Final Concentration 4 🚯	
14			
inal Concentration 5 🚯		Final Concentration 6 🚯	
inal TLV-TWA *(3)			
3			
Date and Time Ventilation Completed *🚯			
01/04/2024 11:22 AM	Ĩ		
Next			

# **Treatment Certificate Portal**

Error



# **Treatment Certificate Portal**

Attach documents

Australian Govern Department of Agric Fisheries and Forest		Portal	1 here	
Home Submit Treatment Deta	ils   Summary of Treatments   Sun	nmary of Submissions		Sam Griffiths +
Home > Biosecurity > Treatments	> OTP Forms > Biosecurity Treatment Loc	gement		
<b>Biosecurity Treatm</b>	ent Lodgement			
Attach Documer	Document Count	Created By	Last Modified On	
Treatment Certificate	0	Sam Griffiths	08/05/2024 9:48 PM	Attach Documents
Record of Treatment	0	Sam Griffiths	08/05/2024 9:48 PM	Attach Documents
Previous Next				

### **Certificate Portal SeaPest** Certificate No Consign Treatment Con AEI ID Consi Flag 53,555 195 10.029 18,319 2,724 01/09/2019. 12:55 6.989 19.30% 1.671 629 12.84 07/09/2019, 12:50 TCKU6937057 14/09/2019. 12:50 25/09/2019. 13:00 02/10/2019, 14:10 TGHU8374961 16/11/2019, 13:19 SUDURSSMAR 10/09/2020, 12:56 B/L NO # DKJ 27/10/2020, 12:1 11110008540 05/12/2020, 12:12 INVOICE NO .: IE-E Configura 05/12/2020. 12:11 00011 Internal facing •

- External facing
- Multi Factor Authentication .
- Secure comms channel with TPs

Data validation .

Level 1

- . Data only from
- trusted/approved sources No invalid data



Level 2

- Transaction automated . compliance assessment
- to manage at border
- promote voluntary compliance

- Data analytics
- Systemic non-compliance detection



compliance

- Identify risk consignments
- Provide feedback to TPs to



Business rules to assess transactional

Systemic analysis of TPs Identify deliberate noncompliance and fraudulent behaviour

Look at the whole system, take information from Level 1-3 and rank the Treatment Provider by risk rating

Level 4

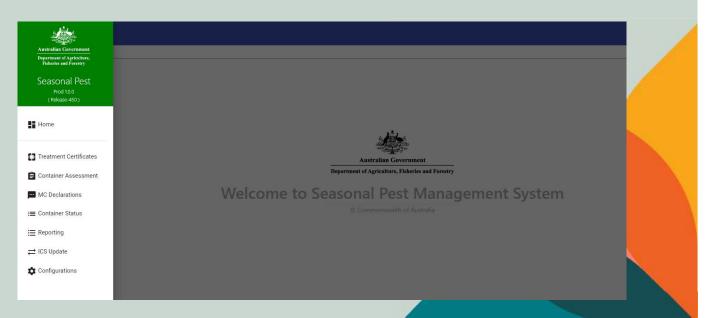
Helps work out where we need to direct resources



7,000 noncompliance

# **Seasonal Pest**

Entries



### **Power BI T3 Model**

42.499

8.692

....littitilitte

# Seasonal Pest

Entries

Ξ	Submission ID	Flags	Treatment Completed	AEI ID	Certificate No	Consignment Link Type	Consignment No	Reason For Treat	Treatment Type	MC Declaration ID
	TP2024-0044424		21/04/2024, 21:00	DE4003SB	2023-24-2724	Container Number	CAIU6978611	BMSB	Sulfuryl Fluoride	
	TP2024-0044426		24/04/2024, 18:48	BE4006SB	FUM049109	Container Number	TRLU8952381	BMSB	Sulfuryl Fluoride - Th	
	TP2024-0044427		25/04/2024, 18:56	BE4006SB	FUM049148	Container <mark>Numb</mark> er	CMAU7013914	BMSB	Sulfuryl <mark>Flu</mark> oride - Th	
	TP2024-0044428		24/04/2024, 18:49	BE4006SB	FUM049093	Container Number	FANU3676269	BMSB	Sulfuryl Fluoride - Th	
	TP2024-0044429		02/04/2024, 13:45	MY0071MB	SFA92031	Other	28751685	BMSB	Methyl Bromide	
	TP2024-0044431		25/04/2024, 18:57	BE4006SB	FUM049054	Container Number	FCIU4463343	BMSB	Sulfuryl Fluoride - Th	
	TP2024-0044430		23/04/2024, 22:30	DE4003SB	2023-24-2736	Container Number	FANU3585359	BMSB	Sulfuryl Fluoride	
	TP2024-0044433		25/04/2024, 18:32	BE4006SB	FUM049047	Container Number	MEDU2027580	BMSB	Sulfuryl Fluoride - Th	
	TP2024-0044434	wi	01/03/2024, 20:00	FR4004SB	EWS-040493/001	Container Number	MEDU3989906	BMSB	Sulfuryl Fluoride	
1	TP2024-0044435		25/04/2024, 18:47	BE4006SB	FUM049056-01	Container Number	TGBU9618757	BMSB	Sulfuryl Fluoride - Th	

Seasonal Pest

Non-compliant treatments

	AEI Number			Submission ID	TP2024-0041890			
	Submission Email	and your plant to gmail.com		Submitted On	16/04/2024, 16:39			
	Certificate Number			Seal Number				
	Treatment Lot Identifier			Record Of Treatment Document	DOC114580327			
	Withdrawn?	Yes			enclosure volume > 30 m³ does not have required amount of monitoring tubes			
	Suspended?			Suspension Reason				
	Consignment Type	OBOL		Consignment Number	<del></del>			
Good Description		AUTO SPARE PARTS NEW PARTS		t 🛥				
	Target Of Treatment	Goods Packaging		Treatment Type	Methyl Bromide 🚦 Details			
	Shipment Method	Break Bulk		Treatment Method	Sheeted stack			
	Reason For Treatment	BMSB		Ventilation Completed	07/04/2024, 17:08 (local time of OTP)			
	Treatment Validation Errors		'FinalConcentrationTimestamp' value is 7/04/2024 5.08.00 PM +10:00. 'TreatmentCompletedTimestamp' value is 7/04/2024 5.08.00 PM +10:00. Must be greater than 0.0000 hours after final reading					
	Modified By	Jazmine Zabel		Modified On	23/04/2024, 15:12			
date History						^		
odified On	Modifie	1233.•.	Field	Previous Value	New Value			
8/04/2024, 15:12	Jazmine		Is Withdrawn	False	True			
3/04/2024, 15:12	Jazmine		Withdrawn Reason		enclosure volume > 30 m <sup>3</sup> does not have requ amount of monitoring tubes	ired		
6/04/2024, 16:41	AGDAF	F\svc_AIMSCC_P	New Record Created	-				

### **Certificate Portal SeaPest** Certificate No Consign Treatment Con AEI ID Consig Flag 53,555 195 10.029 18,319 01/09/2019.12:53 6.989 19.30% 1.671 12.84 07/09/2019, 12:50 TCKU6937057 14/09/2019. 12:50 AF4001SE SAMO 25/09/2019. 13:00 MPP1 MP2650 02/10/2019, 14:10 TGHU8374961 SAMPCSAHIC 16/11/2019, 13:15 SUDURSSMAR 10/09/2020, 12:56 B/L NO # DKJ I Container Stat 27/10/2020, 12:1 11110008540 05/12/2020, 12:12 INVOICE NO .: IE-E Othe 05/12/2020. 12:11 000010 Internal facing • Data analytics

compliance

- External facing
- Multi Factor Authentication .
- Secure comms channel with TPs

. Data validation

Level 1

- . Data only from
- trusted/approved sources No invalid data

Level 2

- Transaction automated . compliance assessment .
- Identify risk consignments to manage at border Provide feedback to TPs to
- promote voluntary compliance



Business rules to assess transactional

Level 3

- Systemic analysis of TPs Identify deliberate noncompliance and fraudulent behaviour
- Level 1-3 and rank the Treatment Provider by risk rating Helps work out where we
- need to direct resources

Level 4

Look at the whole system,

take information from



non-

compliance

## **PowerBI Treatment Providers**

Patterns and indicators - odds and evens

		Readings & F	Patt	erns			Va	alidation					Od	ds & evens			
Submission	date			AEI		Certificat	te number		Odds & e	evens		Occurr	ence (s	start)	Occurr	ence (	end)
01/09/20	3 🗉	08/04/2024 🖾		Treatment provider 1	$\sim$	All		$\sim$	Readings	Occurrence	%	Reading	Count	%	Reading	Count	%
				⊘.0.₹.83					Even	3,560	59.49%	54.0		15.01%	28.0	707	
				10101	End	ries by mor	a t la		Odd	2.424	40.51%	58.0		13.64%	27.0	652	
Treatment II	0 11	12 13 F1 F2 F	3		Em	Thes by mor	iun		Total		100.00%	56.0		12.97%	29.0		20.9256
34462	58.0	29.0			• Er	tries 🔵 Treatmen	its					52.0 60.0		12.43% 11.06%	30.0 31.0		19.02% 11.03%
34432		55.0 58.0 31.0 28.0 2							Odds & e	evens (sta	art)	55.0		7.49%	26.0		2.67%
34431		53.0 56.0 30.0 27.0 2			100				Decalization	Occurance	~	62.0		7.32%	32.0		0.87%
34427		55.0 58.0 31.0 28.0 2				1			Readings	Occurance	70	57.0		5.95%	292.0		0.03%
34426	62.0 54.0	55.0 58.0 31.0 28.0 2 27.0	9.0			1			Even	2.176	72.73%	59.0	161	5.38%	38.0	1	0.03%
34421	54.0	27.0				. 0		A .	Odd		27.27%	53.0	143	4.78%			
34420 34419		56.0 59.0 32.0 29.0 3	0.0		50							61.0		2.87%			
34418	52.0	26.0	0.0		50		MIL	1LA	Total	2,992	100.00%	63.0		0.67%			
34417	52.0	28.0					IW	JVI	A shh	evens (er	d)	64.0		0.20%			
34416		55.0 59.0 31.0 28.0 3	0.0			AL MI					1	51.0		0.13%			
34411	59.0	52.0 55.0 30.0 27.0 2	8.0			1 11		1	Readings	Occurance	%	50.0 68.0		0.07%			
34409	58.0	29.0			0	1 1			Odd	1.000	53.74%	68.0	1	0.03%			
34407		52.0 56.0 29.0 27.0 2				Oct 2023	Jan 2024	Apr 2024									
34406		58.0 55.0 27.0 29.0 2							Even		46.26%						
34405		56.0 59.0 31.0 29.0 3	0.0		Cer	tificate deta	ails		Total	2,992	100.00%						
34404	56.0	28.0			Con	t. number	Cort LIPI	ROF URL									
34345 34344		61.0 58.0 28.0 31.0 2			Cer	t. number	Cert. UKL	KOF UKL	Odds & e	evens - (	lecimal)						
34343		60.0 57.0 28.0 30.0 2 54.0 59.0 31.0 29.0 3			-		S	Ø	Readings	Occurrence	%						
34343		55.0 58.0 31.0 28.0 3			-		Ø	Ø	-		190						
34341	54.0	28.0	0.0				P	P	Even	5,984	100.00%						
34340		60.0 58.0 27.0 30.0 2	9.0		_				Odd	C	0.00%						
34339	54.0	28.0			100	40000704	B	B	Total	5.984	100.00%						
34338	57.0	29.0					S	6		-)							
34337	52.0	27.0			-		B	B	Decimal	distribut	on						
34336		55.0 58.0 31.0 28.0 2			E.4.	(DI-400368/000	0	P		Occurance							
34335		58.0 54.0 27.0 29.0 2					-0	0	Decimal	uccurance	%h						
34334		53.0 56.0 30.0 27.0 2					0	0	0	5,984	100.00%						
34333		63.0 58.0 28.0 32.0 3					0	Q	Total		100.00%						
34332 34331		53.0 57.0 30.0 28.0 2 55.0 58.0 31.0 28.0 2			-				local	3,564	100.00%						
34330 34330		56.0 58.0 31.0 29.0 3				1 - 100200/2020	P	e									
34329		61.0 57.0 28.0 31.0 2															
34328		60.0 58.0 28.0 30.0 2			-	11000.05	Q	Q									
34327		52.0 55.0 30.0 27.0 2			50	4.4670-005	0	Q									
34326		56.0 58.0 81.0 29.0 8															
34325	61.0	55.0 59.0 31.0 28.0 3	0.0				e c	ø									

### **Power BI T3 Model**



Systemic non-compliance detection

# **PowerBI Treatment Providers**

Patterns and indicators – decimal distribution

	Readings &	Patterns		V	alidation					Odds & evens		Sector 2				
Submission	date	AEI	Certific	ate number		Odds & e	evens		Occurre	nce (start)	Occurre	ence (end)				
01/09/203	23 🗉 08/04/2024 💷	Treatment provider 2			$\sim$	Readings	Occurrence %		Reading	Count %	Reading	Count %				
		Ø.0.7.80."			×	Odd	1,310 5	51.62%	36.1	29 2.29%	22.7	30 2.36%				
						Even	1,228		36.9	26 2.05%	21.9	29 2.29%			12	
Treatment II	D I1 I2 I3 F1 F2	F3	Entries by m	onth					35.9	21 1.65%	22.9	26 2.05%	< Back	to report	DECIMAL DI	STRIBUT
15359	39.8 38.5 37.2 20.2 21.6	22.9	Entries Treatment	ontr		Total	2,538 10	00.00%	38.1	20 1.58%	24.1	26 2.05%		A START BOLDER	2000 The Contract of Contracts	
15358	39.6 38.3 36.7 20.6 21.9		Citules Wireau	ents		Odde &	evens (start)		37.1	18 1.42%	20.1	25 1.97%	Decimal	Occurance	%	
15357	43.6 42.4 41.3 23.1 22.6								39.5	18 1.42% 17 1.34%	25.9	24 1.89%			*	
15356	44.2 42.9 41.6 22.9 21.3	20.7	100			Readings	Occurance %		37.9 35.1	16 1.26%	21.6	23 1.81% 20 1.58%	1	460	18.12%	
15355	36.6 35.2 34.3 20.2 19.4		100			Even	597 4	7.049/	49.1	16 1.26%	25.7	20 1.58%				
15354	46.9 45.7 44.3 24.5 23.1			IN					37.8	15 1.18%	23.1	19 1.50%	9	414	16.31%	
15319	40.5 39.1 37.8 21.3 20.4			ALL A		Odd	672 5		39.1	15 1.18%	26.1	19 1.50%	6	317	12.49%	
15318	36.7 35.3 34.1 19.6 18.2			MIL A		Total	1,269 10	0.00%	39.6	14 1.10%	19.9	18 1.42%				
15317	92.1 90.7 89.5 69.9 71.5		50	IN V A					46.2	14 1.10%	27.1	18 1.42%	7	281	11.07%	
15316	38.1 36.8 35.6 20.6 19.4			14 1 /1		Odds & i	evens (end)		34.1	13 1.02%	18.5	17 1.34%	2	227	8.94%	
15315	50.1 48.9 47.4 26.3 25.5 36.7 35.5 34.2 20.2 21.5					Readings	Occurance %		35.4	13 1.02%	20.6	17 1.34%				
15314 15313	40.6 39.3 37.8 19.9 21.1						•	_	37.2	13 1.02%	26.9	17 1.34%	5	225	8.87%	
15312	42.5 41.1 39.5 23.5 24.7		0 Oct 2023	Jan 2024	Apr 2024	Odd	638 5	0.28%	37.5	13 1.02%	22.6	16 1.26%	4	211	8.31%	
15512	39.9 38.6 37.3 20.7 21.9		Oct 2023	Jan 2024	Apr 2024	Even	631 4	9 72%	37.6	13 1.02%	25.1	16 1.26%				
15310	37.8 36.6 35.4 22.9 24.1		Certificate de	A		Total	1000 A.C. 10		38.5	13 1.02%	28.6	16 1.26%	3	200	7.88%	
15309	41.2 40.1 38.9 18.6 19.9		Certificate de	taits		Iotal	1,269 10	0.00%	34.9	12 0.95%	18.6	15 1.18%	8	199	7.84%	
15308	36.5 35.1 33.9 21.6 22.9		Cert. number	Cert. URL	ROF URL	Odds &	evens - (dec	(Icmi	39.3	12 0.95%	19.1	15 1.18%				
15307	40.4 39.5 38.3 22.5 23.7			<u>ر</u> ها	- w				40.1	12 0.95%	20.9	15 1.18%	0	4	0.16%	
15306	34.6 33.4 32.1 24.9 26.2	27.6		Q	Q	Readings	Occurrence %		44.9 46.1	12 0.95% 12 0.95%	20.2 21.4	14 1.10% 14 1.10%	Total	2.538	100.00%	
15305	35.7 34.4 33.2 26.4 27.6	28.9				-	958 3		45.1	12 0.95%	21.4	14 1.10%	Total	21000	10010070	
15304	36.9 35.7 34.4 25.1 26.4	27.8	COLLEGOCITOOT	P	P	Even			35.6	11 0.87%	23.6	14 1.10%			2 C	
15303	39.8 38.5 37.3 23.6 24.8	25.9		9	P	Odd	1,580 6	62.25%	36.5	11 0.87%	23.0	14 1.10%				
15302	40.1 38.9 37.5 21.0 22.2			. 0	P	Total	2,538 10	00.00%	37.7	11 0.87%	23.9	14 1.10%				
15301	36.7 35.4 34.2 22.7 23.9				-0				38.4	11 0.87%	28.1	14 1.10%				
15300	37.9 36.6 35.4 21.9 23.2					Decimal	dist ⊘ ເ 🛛 ) 🤅	E 62 -	38.9	11 0.87%	18.7	13 1.02%				
15299	38.4 37.2 36.1 24.2 25.6		( <del>100/1 - 100200/20</del>	<b>.</b> ©	B	Desimal	Occurance %		40.5	11 0.87%	19.5	13 1.02%				
15298 15297	09.5 08.2 06.9 25.2 26.5					Decimal			45.1	11 0.87%	20.7	13 1.02%				
	37.8 36.6 35.4 27.1 28.4			<b>0</b>	P	1	460 18	.12%	45.9	11 0.87%	21.2	13 1.02%				
15296 15295	46.7 45.4 44.2 23.7 24.6 40.5 39.3 38.1 21.7 22.9					9	414 16	3196	47.2	11 0.87%	22.1	13 1.02%				
15295	40.5 39.3 38.1 21.7 22.9 39.6 38.4 37.2 22.9 24.2			0	B				47.3	11 0.87%	24.3	13 1.02%				
15294	47.3 46.2 44.8 25.7 26.9					6	317 12		47.8	11 0.87%	24,8	13 1.02%				
15293	46.4 45.1 43.9 21.9 23.1			9	P	7	281 11	.07%	50.1	11 0.87%	19.7	12 0.95%				
15292	44.8 43.6 42.3 22.2 23.4		ECH ALECO DE	2	Q	2	227 8	.94%	35.7	10 0.79%	22.8	12 0.95%				
15256	47.6 46.5 45.4 23.5 24.8		Advantation of the	9	Q	5		.87%	36.6	10 0.79%	23.8	12 0.95%				
15255	46.9 45.5 44.3 26.1 27.4		Deventer	0	3	-		.8/%	36.7	10 0.79%	24.2	12 0.95%				
15254	45.6 44.1 42.7 22.5 23.4		LIGHT DL			Total	2,538 100		37.3	10 0.79%	24.6	12 0.95%				
			<u></u>	@3	(P)		1,000 100		38.2	10 0.79%	17.9	11 0.87%				

# **PowerBI Treatment Providers**

Patterns and indicators – repeating numbers

		Readings &	Pat	tterns				Va	lidation				Odd	ls & even	5			
Submission da	ate			AEI			Certifica	ate number		Odds &	evens	Occur	rrence (s	tart)		Occurre	\$:0:	≂)ß ·
01/09/2023	团	08/04/2024 🖾		Treatm	ent provider 3	$\sim$	All		$\sim$	Readings	Occurrence %	Readir	ng Count	%		Reading	Count	%
					Ø.0.₹.80.•					Even	10,752 50.01%	25.0	3,351	81:17%		13.0	3,894	38.22%
										Odd	10,747 49.99%	26.0	2,245	20.89%		14.0	2,908	27 05%
Treatment ID	11	12 13 14 15 16 1	F1	F2 F3	3 F4 F5 F6	Entr	ies by mo	onth				24.0	2,068	19.24%		12.0	2,156	
3138	27.0	28.0 28.0	13 (	13.0 15	5.0	- Cat	ies 🐵 Treatme			Total	21,499 100.00%	27.0	971	9.03%		15.0	1,235	
3137				14.0 13		Enu	ies 🖝 ireatme	ints		Odda 8	evens (start)	23.0	762	7.09%		16.0		2.03%
3136				14.0 16		300						22.0	716	6.66%		17.0		1.34%
3135				0 13.0 14				A	1.1	Readings	Occurance %	28.0	260	2.42%	11	18.0		0.66%
3134				13.0 12				A				21.0	212	1.97%	ы.	19.0		0.21%
3133				15.0 14		200			A	Even	5,343 49.71%	29.0	47	0.44%	11	32.0		0.10%
3132				14.0 14		200			A	Odd	5,406 50.29%	13.0	10	0.09%	11	48.0	9	0.08%
3131				15.0 15			A		1	Total	10,749 100.00%	15.0	7	0.07%	11	33.0		0.07%
3130				) 13.0 13				WU L.	11	Iotal	10,745 100.00%	14.0	5	0.05%	11	50.0		0.07%
3129				15.0 14		100	INMI	N VII		& shb0	evens (end)	75.0	5	0.05%	11	51.0		0.05%
3128			14.0									77.0	5	0.05%	11	20.0		0.05%
3127				13.0 12			AL V			Readings	Occurance %	79.0	5	0.05%	ы.	47.0		0.05%
3126				14.0 13		0 -		1 1	N N		-	104.0	4	0.04%		52.0		0.05%
3125				13.0 13		0	Oct 2023	Jan 2024	Apr 2024	Even	5,409 50.32%	105.0	4	0.04%	ы.	1.0		0.04%
3124				13.0 12			0002020	2011 2024	HPI EVEN	Odd	5,341 49.68%	76.0	4	0.04%		30.0		0.04%
3123				14.0 14		Cont	ificate de	taile		Total	10,750 100.00%	96.0	4	0.04%		53.0		0.04%
3122				16.0 15		Cert	incate de	laits		Iotal	10,750 100.00%	102.0	3	0.03%	11	24.0		0.03%
3121				15.0 15		Cert.	number	Cert. URL	ROF URL	Odde 8	evens - (decimal)	103.0	3	0.03%		25.0		0.03%
3120				15.0 15		- 1011	000070/0	10	• 10			106.0	3	0.03%		31.0		0.03%
3119				18.0 17						Readings	Occurrence %	12.0	3	0.03%	ы.	34.0		0.03%
3118				12.0 12		-	00007016	0	Q	1000		65.0	3	0.03%		45.0		0.03%
3117				13.0 12		-		9	P	Even	21,499 100.00%	67.0	3	0.03%		49.0		0.03%
3116				13.0 12		2022		୍ଦ	9	Odd	0 0.00%	74.0	3	0.03%		46.0		0.02%
3115				14.0 13					1.11	Total	21,499 100.00%	78.0	3	0.03%	11	54.0		0.02%
3114				13.0 13				9	P	Total	LA,-55 100.0070	80.0	3	0.03%	11	112.0		0.01%
3113				12.0 12		-				Decimal	distribution	100.0	2	0.02%	11	120.0		0.01%
3112			13.0			and a		0 e	P	1000000		120.0	2	0.02%	11	140.0		0.01%
3111			14.0	14.0 13						Decimal	Occurance %	225.0	2	0.02%		141.0		0.01%
3110				13.0 12		_					-	5.0	2	0.02%		143.0		0.01%
3109				13.0 12		-		<u>م</u>	B	0	21,498 100.00%	68.0	2	0.02%		3.0		0.01%
3108				13.0 13		a state				26	1 0.00%	69.0	2	0.02%		313.0		0.01%
3107				15.0 14		-	1.000.000	୍ଷ	B	Total	21,499 100.00%	72.0	2	0.02%		35.0		0.01%
3106				12.0 12				®	P	Iotal	21,495 100.00%	73.0	2	0.02%		4.0		0.01%
3105				14.0 14								97.0	2	0.02%		44.0		0.01%
3104				14.0 15		i i i i i i		B	C			0.26	1	0.01%		55.0	1	0.01%
3103				13.0 13		-		e	S			101.0	1	0.01%				
3102				13.0 14				Ø	B			107.0	1	0.01%				
3101				13.0 12			_	0	0			121.0	1	0.01%				

BROWN MARMORA SULFURYL FLOURIDE FUN Certificate number:	IGATION CERTIFICATE		*	Assirtation Governmoon Department of Agricultus and Water Resources	:	BMSB	Sulfuryl	Fluoride	- Record	of Fur	igation - N	<u>letric</u>
CONSIGNMENT	DETAILS		Job Det	tails								
Goods description:	Quantity: 49		Job Ident 227.		-	Customer N	lame	Start 2024-	Date of Fumiga 04-22	ation	Location	2
ne and address of exporter: Na	Country of destination: Australia me and address of importer:			on of Consignr vice parts - 49 pc			-				(a)	
			Target of	Fumigation vice parts				Conte	ainer Numbers	/ Consign	ment Identificat	on
			Fumiga	tion Details				-			Contract of	1000
TREATMENT	Time fumigation completed: 07:00		furrigant to	ipping packaging access all surfact if shipping packa	ces of the p	poods?			ved the		□Yes □I	NO NA
Date ventilation commenced: 2024 / 04 / 23	Time ventilation commenced: 07:05		Was all con /select MA	nmercial packagi if commercial pai	ing applied okaoing wa	as part of the	e goods manu t at the time o	facturing proces	557		AYes DI	No NA
Town/city fumigation	Exposure period (hours): 14		Sheete			Lengt			_ Un-she	ieted	Volume	: (m²)
Dose rate applied ( Xg/m <sup>3</sup> or Oz/1000ft <sup>3</sup> ): 24	Minimum temperature ( X C or C *F): +10		-						Contair	ner	400	
Lowest end-point reading (X g/m3 or Oz/1000ts): 12	Final TLV reading (ppm): 1,0 (TGRS 512)		Sheete	ed Container/s	10	Width			- Chamb	er	76,4	
low was the fumigation conducted? X Un-sheeted	with more at an		Size:	40 any:_	FIC	Height	=		-			
Chamber	Sheeted stack		Specified	Dose Rate	E	xposure Pe	ariod	Forec	ast Minimum T		Fumigation Mil	iimum Temp
re the goods treated in the container they will be shipped	in X Yes or No (No, includes break-bulk goods)			24 .	10.0	1			10	°C	(11 melateru)	
ontainer number:	or not applicable		Calculate	d Dose		ctual Dose			Dosing Finishe	ed		
/as a container seal applied by the treatment provider with ompletion? If yes - Seal number:	n 120 hours of the treatment X Yes or No		1	8.33	- 0	2.0	00.	0 1	6:51			
Vas all shipping packaging/wrapping removed or configured			Concen	tration Read	lings						E STA	
fumigant to access all surfaces of the goods? ect NA if shipping packaging was not present at the time of	Yes or No or X NA		T	Time of Do	ose	М	onitor Line	Readings	by Location		Equilibrium	Top-up
	A second s		Phase F	Reading rate	g/m² 1:	1		3:	4: 5:		Calculation	Dose
all commercial packaging applied as part of the good's r ct NA if commercial packaging was not present at the tin			Start	17100 0	24	25	24	29			6,2 %	NA
DECLARAT			Gan								%	NA
are that all information on this certificate is true, complete	e and accurate, and that the		During	1.22	IA	-					NA	
nent has been conducted in accordance with the Sulfury odology	I Fluoride Fumigation X Yes			N	A.C.S.						NA	
ADDITIONAL DECL	1017/01/0		End	07100 1	2 .	13	14	19		_	NA	22.58
ADDITIONAL DECL			Commen	its				-			NA	NA
			Ventilati	ion				-			-	
			Time com	10000	De	ate comme	inced	Final	TLV reading	-	Date & time rea	ding taken
00		2	. 0.7.1.	0.5			04.23			ppm	2024-044	S OPE
			Fumigat	tor in Charge	3				emment Offic			
			Name		Si	gnature	100	Name	1	1	Signature	

21

## **PowerBI Treatment Providers**

Patterns and indicators - repeating numbers

			Readi	ngs & I	Patterns		V	alidation				Odd	ls & evens			$\Diamond$	
Submission d	ate				AEI	Certific	ate number		Odds & e		Occurr	rence (s	tart)	Occurr	ence (e	end)	
01/09/2023	8	08/04/2	2024 🖾		Treatment provider 4	V All		$\sim$	Readings	Occurrence %	Reading	g Count	%	Reading	Count	%	
					\$ 0 ₹ 8				Even	2,801 52.67%	25.0	1,223	45.985+	13.0	927	34.88%	
									Odd	2,517 47.33%	24.0	781	29.38%	12.0	711	.25.75%	
Freatment ID	11	12 13	14 15	F1	F2 F3	Entries by m	onth				26.0		19.40%	14.0	645	24.27%	
1757	24.0	24.0 25.	0	13.0	12.0 12.0	Entries  Treatm	ontr		Total	5,318 100.00%	27.0		4.85%	9.0		4.70%	
1756		26.0 27.			12.0 12.0	Citules @ ireaui	ients		Odde &	evens (start)	28.0		0.19%	15.0		3.50%	
L1755		25.0 26.			13.0 12.0						13.0		0.08%	10.0		2.71%	
11696	25.0	25.0 26.	0	14.0	14.0 15.0	60			Readings	Occurance %	9.0 14.0		0.08%	8.0 11.0		2.14% 0.45%	
1695	25.0	25.0 25.	0	13.0	12.0 12.0				-							0.30%	
11694	24.0	24.0 26.	0	13.0	13.0 14.0	1.1	A M AA		Even	1,304 49.02%	8.0	1	0.04%	16.0 25.0		0.30%	
11693	24.0	24.0 25.	0	13.0	14.0 15.0	40	11111		Odd	1,356 50.98%				25.0		0.11%	
1692	25.0	25.0 27.	0		12.0 12.0	40		A	Total	2,660 100.00%				17.0		0.08%	
11691	25.0	25.0 27.	0	14.0	14.0 15.0	111		1 01						17.0		0.04%	
1690	25.0	25.0 25.	0	13.0	14.0 14.0	20	1 1 1	1 114	Odds &	evens (end)				26.0		0.04%	
11689	25.0	24.0 26.	0	13.0	13.0 13.0			MA						20.0	1	0.0476	
1688	25.0	24.0 24.	0	13.0	12.0 14.0	/ V		VII	Readings	Occurance %							
11687	25.0	25.0 25.	0	14.0	14.0 12.0	0			Trees	1,497 56.32%							
L1686	24.0	24.0 25.	.0	12.0	12.0 14.0	Oct 2023	Jan 2024	Apr 2024	Even								
1685	26.0	26.0 24.	0	13.0	13.0 12.0				Odd	1,161 43.68%							
11684	25.0	25.0 26.	0		14.0 14.0	Certificate de	tails		Total	2.658 100.00%							
11683	26.0	24.0 26.	0	13.0	13.0 14.0					The second second							
11682		24.0 24.			13.0 12.0	Cert. number	Cert. URL	ROF URL	Odds & e	evens - (decimal)							
11681	24.0	24.0 26.	.0	12.0	13.0 12.0		S	0									
11680		25.0 25.			12.0 15.0		P	P	Readings	Occurrence %							
1679		24.0 24.			14.0 12.0	IUIILULUMI			Even	5,318 100.00%							
11678	25.0	25.0 27.	0	12.0	14.0 14.0		P	B									
11677		25.0 26.			13.0 14.0	0000000000000	B	B	Odd	0 0.00%							
11676		26.0 25.			14.0 13.0		6	Ø	Total	5,318 100.00%							
11675		25.0 25.			12.0 12.0												
11674		25.0 25.			13.0 12.0				Decimal	dist ⊘ ( @ ) ₹ @ ~							
11673		25.0 24.			13.0 12.0		<b>e</b>	P									
11672		26.0 27.			13.0 13.0				Decimal	Occurance %							And And
11671		25.0 26.			13.0 14.0		•	B	0	5,318 100.00%							
11670		27.0 25.			13.0 14.0												
11669		26.0 26.			12.0 12.0		_	-	Total	5,318 100.00%							
11668		26.0 27.			14.0 14.0		6	Q									
11551		25.0 26.			14.0 14.0		®	P									
11550		26.0 25.			13.0 14.0		P	B									
11549		25.0 25.			12.0 13.0												
11548		25.0 26.			13.0 14.0		B	®									
11547 11546		25.0 25.			13.0 14.0		B	B									
		25.0 26.	0	13.0	14.0 13.0	ECI 14612 DE	P	(P)									

### **Certificate Portal SeaPest** Certificate No Consignment Li... Treatment Con AEI ID Consign Flags 53,555 195 10.029 18,319 01/09/2019.12:55 6.989 19.30% 1.671 12.84 07/09/2019, 12:50 TCKU6937057 14/09/2019. 12:50 SAMPCONT 25/09/2019. 13:00 SAMOCSAITCI Container Number MPH M02650 02/10/2019, 14:10 TGHU8374961 SAMPCS/HTC/... Container Number 16/11/2019. 13:15 SUDURSSMAR SAMPCS/HTC/... Container Number 10/09/2020, 12:56 SAMPCSAITC Ocean Bill of Lading B/L NO # DKG I Container Stat = Reportion 27/10/2020, 12:16 Ocean Bill of Lading 11110008540 05/12/2020, 12:12 INVOICE NO .: IE-E AE4001SB SAMPCS/HTC/... Other Configura 05/12/2020. 12:11 001110

- External facing
- Multi Factor Authentication
- Secure comms channel with TPs

- Level 1 Data validation
- Data only from

.

trusted/approved sources No invalid data



Level 2

- Transaction automated . compliance assessment
- Identify risk consignments to manage at border
- promote voluntary compliance

### **Power BI T3 Model**



### Internal facing

Business rules to assess transactional compliance

### Data analytics

Systemic non-compliance detection



- Provide feedback to TPs to



- Systemic analysis of TPs Identify deliberate noncompliance and fraudulent behaviour
- Level 1-3 and rank the Treatment Provider by risk rating Helps work out where we
  - need to direct resources

Level 4

Look at the whole system,

take information from

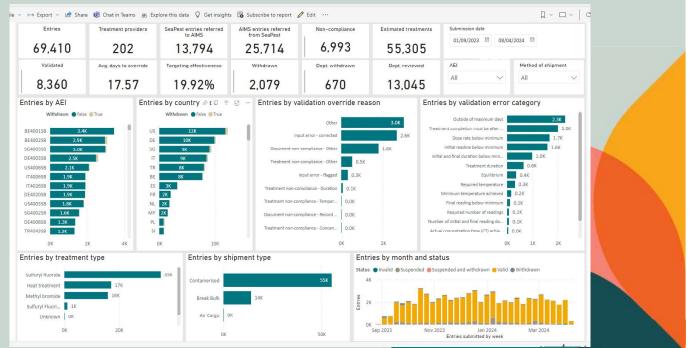


non-

compliance

# **PowerBI** System

Dashboard



# **PowerBI** System

**Risk rating** 

=	Submission date		Method of sh	nipment	Entry ID		Treatment	Cou	ntry	R	eferred	AEI	
	01/09/2023	08/04/2024	All	$\sim$	All	$\sim$	Multiple selections	$\sim$ All		$\sim$ A	$\sim$	All	$\sim$
AEI	AEI name				Status	Total risk rating	Prev. year risk rating	Last audit da	e Entries	% Withdrawn	Above average volumes and withdrawal rate		Dept. withdr
-					Approved	7309	340	Not audite	d 1,916	0.78%	0	15	
	antes 🏴 dentes				Approved	5168	3 2864	Not audite	d 425	0.47%	0	2	
		<u>, at 1 an</u>	<del>, i, (i i i i i),</del>		Approved	3797	7 -36	Not audite	d 1,087	2.94%	0	32	
10.101					Approved	3614	1 5533	Not audite	d 943	0.21%	0	2	
-9-17		ni = 1			Approved	3434	1 NaN	Not audite	d 1,111	1.44%	0	16	
	1995 🏴 Carriele	•			Approved	2768	NaN	Not audite	d 10	0.00%	0	0	
****	nee 🕛 🛲				Approved	2504	1 250	29/01/202	4 89	61.80%	0	55	
					Suspended	2502	2 528	Not audite	d 16	100.00%	0	16	
		<u>, 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 </u>	÷		Approved	2316	5 772	Not audite	ed 29	20.69%	0	6	
					Suspended	2206	5 861	Not audite	d 316	39.87%	0	126	
-					Approved	2045	5 298	Not audite	d 310	0.32%	0	1	
	inte 🏴 einemi	inen terrenine free			Approved	2000	) NaN	Not audite	d 15	0.00%	0	0	
	1999: 🏴 elinne	did Tanigatian in pa	reend Bryens Barri		Approved	1912	2 2001	Not audite	d 419	1.19%	0	5	
					Approved	1881	L 58	Not audite	ed 80	LUAS COTOTES	0	0	
	naa 🖓 Kaaniy				Suspended	1768	3 500	Not audite	ed 41	97.56%	0	40	
-		Contraction of the Contraction o			Approved	1753	3 48	Not audite	ed 79	39.24%	0	31	
*****	nanna 🧎 ainmir				Approved	1691	L 373	Not audite	ed 70		0	0	
-	inte 💾 interio		iy inne (Celendere)	•	Approved	1688	3 298	Not audite	900 - 500 F		0	8	
	and 💾 diagan	iin terre tegligiriilen	ation to		Approved	1637		Not audite	10000		0	17	
					Approved	1585	5 1500	Not audite			0	0	
-		•			Approved	1584	1 500	Not audite			0		
-	ana 💾 Caminis	-			Approved	1559				CONTRACTOR AND	0		
Metter.	i de la companya de l	Computations			Approved	1527	7 0	Not audite	d 62	1.61%	0	1	

### **Certificate Portal**

Assessment of Astronomy DAFF Forms Porta	
ana   Submit Transmust Datalis   Summary of Transmusts   Summary of S	ubersinaisena Katany Grakaer -
are > Researchy > Testments > COP/cons > Researchy Testment indported	
iosecurity Treatment Lodgement	
MBI CPORDETS	
Treatment Certificate Number 10	Treatment Let Identifier
Sendgement Link Type *	Diter 1
	Enode Description *
lasion for Treatment *	
Select or search options	
larget of Treatment *	
Select or search options	

- External facing •
- Multi Factor Authentication .
- Secure comms channel with TPs



- Level 1
- Data validation
- Data only from .
- trusted/approved sources No invalid data

Level 2

- Transaction automated compliance assessment Identify risk consignments
  - to manage at border Provide feedback to TPs to
  - promote voluntary . compliance

- Ale -	Flags	Treatment Completed	AEI ID	Certificate No	Consignment Li	Consignment No
Australian Geverannen Deperment of Agriculture, Etheries and Farrowy	1 <b>.W</b> .)	01/09/2019, 12:55	AE400158	SAMPCS/HTC/	Container Number	MR5U3725208
Seasonal Pest	w	07/09/2019, 12:50	AE400158	SAMPCS//HTC	Container Number	TCKU6937057
		14/09/2019, 12:50	AE4001S8	SAMPCS/HTC/	Container Number	MRKU4866384
Home		25/09/2019, 13:00	AE4001SB	SAMPCS/HTC/	Container Number	MRKU4836550
Treatment Certificates		02/10/2019, 14:10	AE400158	SAMPCS/HTC/	Container Number	TGHU8374961
Container Assessment		16/11/2019 13:15	AF4001SR	SAMPCS/HTC/	Container Number	SUDURSSIM66
MC Declarations						
Container Status		10/09/2020, 12:56	AE400158	SAMPCS/HTC/	Ocean Bill of Lading	B/L NO # DKJ2008
Reporting		27/10/2020. 12:16	AE4001SB	SAMPCS/HTC/	Ocean Bill of Lading	11110008540
ICS Update		05/12/2020, 12:12	AE4001SB	SAMPCS/HTC/	Other	INVOICE NO.: IE-E.
Configurations		05/12/2020.12:11	AE4001SB	SAMPCS/HTC/	Container Number	OOLU1030563

SeaPest

Internal facing •

Business rules to assess transactional • compliance

.

### **Power BI T3 Model**



Data analytics •

• Systemic non-compliance detection





- Look at the whole system, take information from Level 1-3 and rank the Treatment Provider by risk rating
- Helps work out where we need to direct resources





captured



behaviour

Level 3

Systemic analysis of TPs

Identify deliberate non-

compliance and fraudulent

# Future

- Established in 2018 with NZ MPI
- Government-to-industry
- 220+ registered treatment providers
- Mandatory use of the treatment certificate portal



Department of Agriculture, Fisheries and Forestry

27

# Thank you

Questions?



### 附件17



# Emerging Trends, vulnerabilities and opportunities

Presented by: Anna Brezzo



Australian Government Department of Agriculture,

### CED International Engagement Strategy

### Our biosecurity system

Australia's biosecurity system protects our economy, environment and people from the impacts of exotic pests, weeds and diseases arriving on our shores.

### International engagement

### Our purpose

To protect Australia from risks to our biosecurity and trade system by strengthening our compliance, intelligence and investigation outcomes through active engagement and collaboration with stakeholders within the international domain.

Our objectives



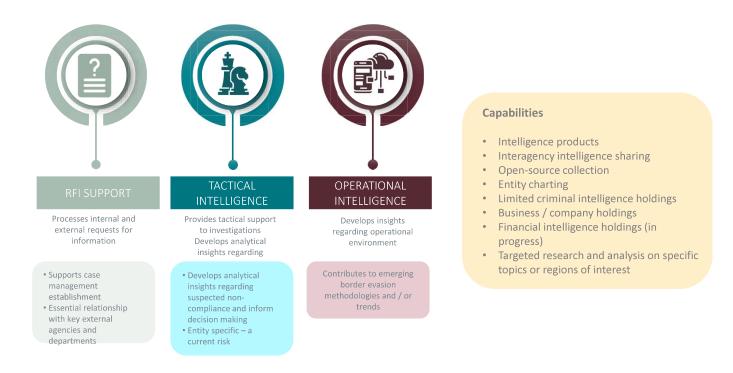
### Exporting to Australia

Australia has strong trade links around the world and to continue those arrangements, we have a strong biosecurity system to protect our agriculture and environment. Pests, weeds and diseases can arrive in Australia with:





### Intelligence Capability





ustralian Government epartment of Agriculture, <u>sheries a</u>nd Forestry

### **Domestic Border Intelligence Collaboration**



Australian Government

Department of Agriculture, Fisheries and Forestry





Australian Government

<sup>©</sup> Department of Home Affairs







224



Australian Government Department of Agriculture, Fisheries and Forestry

# Questions

Thank you



附件18

Quarantine treatment alternatives to methyl bromide for perishable goods - preliminary trial experience with ethyl formate in Taiwan

> Dr. Kuo-Shiou, Huang Animal and Plant Health Inspection Agency(APHIA) MAY 13-17, 2024, 2024 QRM, Vietnam



# Outline

- Introduction
- Selection of alternatives
- Character of ethyl formate
- Preliminary trial
- •Ethyl formate issue



# Why need alternatives to MB?

- •Methyl bromide is an efficient fumigant but must be phased out following the Montreal Protocol
- •MB is a toxic material in particular occupational neurologic effects upon prolonged exposure for fumigation employees



# Which alternatives?

- ISPM 43: Requirements for the use of fumigation as a phytosanitary measure-Appendix 1: other 9 fumigants
- •Other than ISPM43: Treatment standard of US, JP, AU, NZ and TW: CO2, ethylene oxide

### **APPENDIX 1: Chemical pre**

Fumigant active substance	Formula
Carbonyl sulphide	COS
Ethane dinitrile	C <sub>2</sub> N <sub>2</sub>
Ethyl formate	CH <sub>3</sub> .CH <sub>2</sub> .COOH
Hydrogen cyanide	HCN
Methyl bromide	CH₃Br
Methyl iodide	CH₃I
Methyl isothiocyanate	C <sub>2</sub> H <sub>3</sub> NS
Phosphine	PH <sub>3</sub>
Sulphur dioxide	SO <sub>2</sub>
Sulphuryl fluoride	$SO_2F_2$





# Characteristics be considered

- •Resource
- •Regulated Toxic Chemical Substance
- Regulatory restrictions
- Safety
- Target and effect
- Processing time
- •Equipment cost
- Commercialized product



# No. 1: Ethyl formate

- •No MRL
- Not on the list of Regulated Toxic Chemical of EPA
- Sustainable, not ozone depleting fumigant
- Safety
- Common targets and well effect
- Short processing time
- Low cost of equipment modification
- Commercialized product



# Introducing chemicals

- Imported from AU
- •16.7% ethyl formate C<sub>3</sub>H<sub>6</sub>O<sub>2</sub> + 83.3% balance CO<sub>2</sub>
- Pesticide registration
  - •US, AU, NZ, KR
  - •No MRL



意意一部動相對物防疫加度

# Preliminary trial-1Cabbage, 120 g/m3, 1h



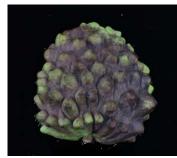
	C	abbage, a	phid	
			tube	
		Ν	Death	Mortality
	1	54	54	100.00%
1st	2	74	74	100.00%
TSC	3	38	38	100.00%
	4	23	23	100.00%
	1	54	54	100.00%
2nd	2	36	36	100.00%
2110	3	48	48	100.00%
	4	49	49	100.00%
	1	49	49	100.00%
3rd	2	56	56	100.00%
310	3	37	37	100.00%
	4	55	55	100.00%
	1	22	0	0.00%
СК	2	37	0	0.00%
CN	3	33	0	0.00%
	4	23	0	0.00%



# Preliminary trial-2 •Sugar apple, 420 g/m3, 2h







After 24 h, browning, no commercial value

•Sugar apple, 160 g/m3, 1h



Left: after 48 h Right: after 72 h



夏泉日野地植物防疫惊疫客 ANIMAL AND PLANT HEALTH INSPECTION AGENCY MINISTRY OF AGRICULTURE

# Ethyl formate issue

- Limited to approved commodities and pests
- •Equipment can be expensive
- Pesticide management regulation in Taiwan
- Limited availability through global supply chain



# **Questions?**





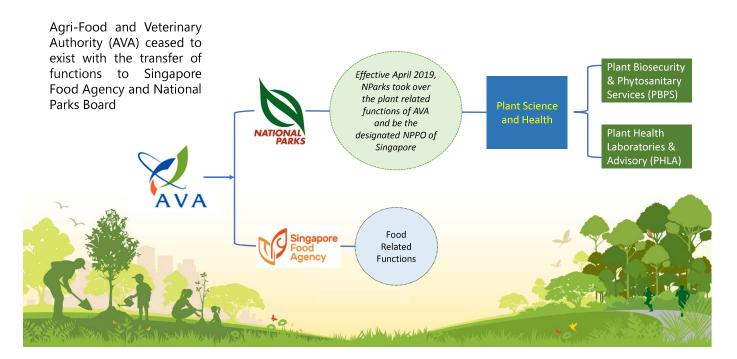
夏泉春日動植物防疫热度者 ANIMAL AND PLANT HEALTH INSPECTION AGENCY MINISTRY OF AGRICULTURE







### National Plant Protection Organization [NPPO] of Singapore



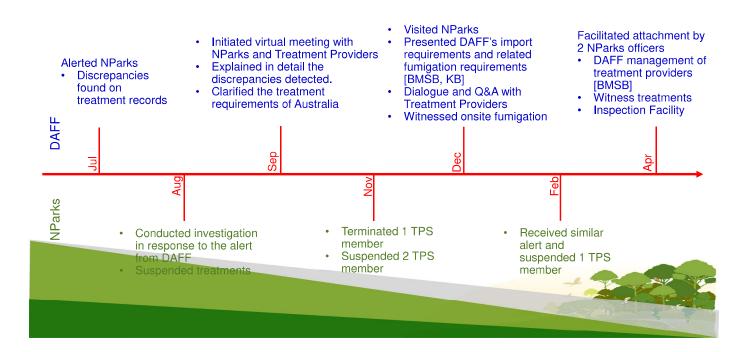
### Functions of NParks



## **Treatment Provider Scheme**

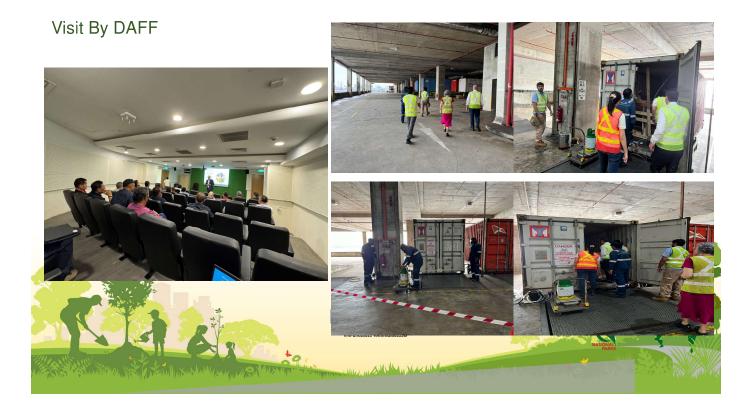


### Collaboration on regulation of treatment providers



### Visit By DAFF







# THANK YOU

## Regulation & Collaboration: the future of biosecurity



附件20

THE FUTURE OF BIOSECURITY IN THE OIRSA REGION Innovation and Development



ORGANISMO INTERNACIONAL REGIONAL DE SANIDAD AGROPECUARIA



OIRSA is an international organism whose mission is to support the efforts of each Member states' Ministries and Secretariats of State of Agriculture and Livestock in the development of Plant and Animal Health plans, Quarantine Services and Food Safety.

## Regional Direction of Quarantine Services

SEPA- is the Agriculture and Livestock Protection Service, currently operating in Guatemala and Honduras. Responsible for carrying out intrusive and non-intrusive inspection in maritime, air and terrestrial means of transportation, as well as international passenger's luggage.





SITC- is the International Quarantine Treatment Services, currently operating in all member states of OIRSA: México, Belize, Central America, and Dominican Repubic. In charge of applying quarantine treatments as needed due to interception of a regulated plage or pre-shipment requirements.



### NEW TECHNOLOGIES AND INNOVATION IN QUARANTINE TREATMENT SERVICES



### Ethanedinitrile

OIRSA is promoting the exploration of other fumigant options to reduce the use of methyl bromide, in accordance with the agreements established in the Montreal Protocol.

Progress has been made in Panama for the registration of EDN in the country to be used as a fumigant in wood.

Last February, with the support of the Plant Health Direction of the Ministry of Agricultural Development, MIDA, a first field application exercise of the EDN was carried out in Panama.



### NEW TECHNOLOGIES AND INNOVATION IN QUARANTINE TREATMENT SERVICES



### Irradiation

OIRSA is committed to offering the Ministries of Agriculture and Livestock of the member states the best tools for the care of their agricultural heritage, as well as promoting the opening of new international trade partners.

It is for this reason that the construction of an irradiation plant for products of animal and plant origin is sought in at least one of the countries in the region.

Actions have been carried out with support from the National Center for Electron Beam Research at Texas A&M University for the implementation of this irradiation plant.



### NEW TECHNOLOGIES AND INNOVATION IN QUARANTINE TREATMENT SERVICES





### INNOVATION IN K9 UNIT FOR NON-INTRUSIVE INSPECTION

The Canine Unit program in OIRSA region began in 2018. At this moment we have over 90 service dogs for agricultural quarantine protection.

In Dominican Republic, an innovative procedure was implemented in 2021 due to the declaration of presence of ASF, making the non-intrusive inspection in origin in departure passengers to prevent potentially risky products to reach free of disease countries.

Additionally, the canine unit has been adding new interest scents in their olfactory memory. Last April, a group of 21 canine units, traveled to Panamá to impregnate in their olfactory memory, the scent of New World Screwworm (NWS) to strengthen inspection of animals in borders and animal mobilization check-points.





### VIRTUAL SIMULATION ROOM WITH IMMERSIVE TECHNOLOGIES

Is a new project for the training of our quarantine officials, specially for scenarios that are difficult to access in real life situations, like aircrafts and ships, and in possible dangerous situations like first training in a fumigation site.



SCFG



Sea Container Focus Group – Update

QRM – May 2024

Australian Government Department of Agriculture, Fisheries and Forestry

Pacific Plant Protection Organization Representative

Rama Karri

## TOPICS

- Purpose
- Global Risk Context
- Sea Container Commerce Complexities
- Options Explored
- Key Areas Of Focus
- Potential Future Solutions
- Next Steps



### PURPOSE

The purpose of this Focus Group is to review all relevant materials and recommendations, develop viable options that will contribute to risk management, and provide CPM with recommendations, including the option of development of an ISPM.

Key functions, included, but are not limited to:

- identify and describe a preferred option or options;
- examine the practicalities needed for such options;
- explore the global commercially driven solution;
- revise CPM recommendation on Sea containers (R-06);
- consider and estimate the resources required by NPPOs and industry parties to establish and operate preferred options.

QRM | 15–17 May 2024





### **GLOBAL RISK CONTEXT**

- Sea container cleanliness data from four countries
- International literature review to collect evidence of:
  - Pest spread linked to the sea container pathway
  - Costs associated with management of introduced and established pests

### **Results:**

- Interception rates 20 -56 % (packed); 15 -33% (empty)
- Over 90 % of external risks (undersides); internal risks (floors)
- 9 pests 100 of World's Worst Invasive Species GIS database

# Consensus – enough scientific evidence – global action required!





### INCORPORATING SAFE TRADE INTO SEA CONTAINER COMMERCE – COMPLEXITIES

- Over 250 million sea containers shipped per annum
- Complex and many supply chain interactions, therefore multiple stakeholders involved
- Clear understanding of roles and responsibilities required
- Ports and Terminals capacity and space
- NPPO's capabilities and capacities limitations

# Solutions MUST be practical, effective and cost-effective





**QRM** | 15–17 May 2024

## **OPTIONS EXPLORED**

- Awareness raising, education and outreach
- Industry-led programs
- Best practices at critical points in the supply chain by industry
- Automated detection capabilities
- Improved container designs
- International phytosanitary standard
- Third party authorization with NPPO oversight
- Incorporating phytosanitary measures into multilateral frameworks
- Revisions to CTU Code





**QRM** | 15–17 May 2024

## **KEY AREAS OF FOCUS**

- Revised CPM Recommendation
- Custodial Responsibility concept
- CTU Code updates
- Pest risk assessment
- WCO initiatives changes to Data Models and updates to SAFE Framework
- Improvements to sea container designs

## International Workshop in Australia - collectively discussed and considered the above.





QRM | 15–17 May 2024

### **Revised CPM Recommendation on sea containers**

- Interim guidance
- 9 recommendations

### **Custodial responsibility**

- Industry-led solution
- Responsibility of the receiving container custodian to hold the previous custodian in the supply chain accountable

### **Updates to CTU Code**

- A joint publication of IMO, ILO and UNECE non-mandatory global code of practice for handling and packing of containers
- Updates a new chapter on pest contamination; replacing current Annex 6 with a placemat; amendments to chapter 4 regarding roles and responsibilities





### Sea container pathway – global risk assessment

- Analysed data collected from 4 countries
- · Reviewed International literature review on spread of pests
- Assessed costs associated with management of pests

### **WCO** initiatives

- Update to SAFE Framework Two proposals:
- Cooperation between Customs and Agricultural agencies to align compliance and other activities
- Collaboration between border agencies to harmonise border control process, measures and strategies





QRM | 15-17 May 2024

### **WCO** initiatives

- WCO Data Models
  - Tracking container cleanliness through customs declarations
- Not possible for empty containers
- Responsible parties for customs declarations and cleanliness declarations identified

### Improvements to container designs

- Floor types that have no gaps, are less prone to developing cracks and crevices, and that are easier to clean
- Light-coloured coatings to container undercarriages to improve the detectability of pest contamination

Australia and China are undertaking container design trials to collect data to inform additional improvements to container designs.





## **EMERGING TECHNOLOGIES - POTENTIAL FUTURE SOLUTIONS**

### • eDNA and eRNA Testing

- Testing environmental samples such as dust or air for pest detection
- If successful, can be used at critical control points
- Can be applied to a variety of pests of concern
- Biosecurity Automated Threat Detection System
  - Cameras mounted on ship-to-shore cranes and applied machine learning to detect and identify the type of biosecurity risks in real-time
  - Several key findings from the trial in Australia
- Hand-held hyperspectral camera
  - machine learning and hyperspectral imaging technology, to detect and categorize potential biosecurity threats.
  - >95 % detection rate, but further development needed

**QRM** | 15–17 May 2024





## NEXT STEPS

- Subject to data availability, assess the effectiveness and efficiency of the CPM Recommendation on Sea containers (R-06)
- Review all new, emerging and evolving technologies and opportunities.
- Continue to analyze potential regulatory and nonregulatory options in order to identify and describe a recommended option or options
- Provide recommendation to CPM on preferred regulatory and non-regulatory options including whether the development of an ISPM is feasible and desirable and draft specifications as necessary
- Develop an action plan and present it to The CPM Bureau for approval in October 2024

### Refer to the ToR for a full list of functions

QRM | 15–17 May 2024



# THANK YOU

**QRM** | 15–17 May 2024