

ALIGNING INCENTIVES IN IMPORT SUPPLY CHAINS

A CARROTS AND STICKS APPROACH

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Key messages

1. Humans behave strategically and respond to incentives in all domains of the economy – including biosecurity!
2. All regulations, by default, possess incentives for stakeholder compliance
3. It is possible to design ‘incentive-compatible’ rules and policies

A screenshot of the Australian Trusted Trader (ATF) Incoming passenger card form. The form is titled "Incoming passenger card - Australia" and is designed for travelers from the United States. It contains various sections for personal information, travel details, and biosecurity declarations. The form is partially filled out, and a large "BICON" watermark is overlaid on the right side. The form includes fields for family name, given name, passport number, flight number, and intended address in Australia. It also features a series of questions related to biosecurity, such as whether the traveler has been in Australia for the last 12 months, if they are a US citizen, and if they have been in contact with anyone from overseas within the last 14 days. The form is set against a light yellow background with a grid of questions and "Yes/No" response options.

Aligning incentives in import-supply chains

Understand what motivates stakeholders:

Actors	Motivation
Importer	Profit motivated
Domestic consumer	Maximise welfare from consuming goods
Domestic producers	Profit motivated
Biosecurity agency	Implement the Biosecurity Act
Government	Welfare across the whole economy Maintain environmental stocks

➤ Note that the motivations of stakeholders are not aligned with national goals

Consider responses of importers when designing inspection rules:

- Take account of (expected) behaviour of **regulated entities**, not just the regulator's objectives
- 'incentive regulation'

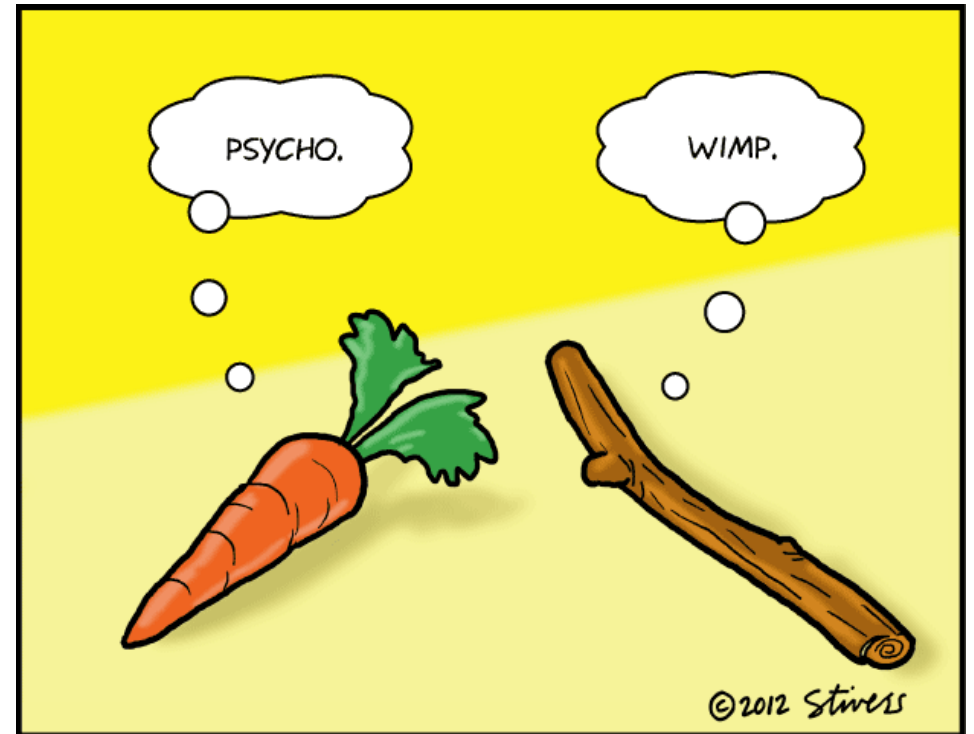
CEBRA-DA 'Carrots and Sticks' project

CSP-3/CBIS inspection rolled out in 2013

- what are its incentives?

Design and trial biosecurity inspection protocols that encourage compliant behaviour, using:

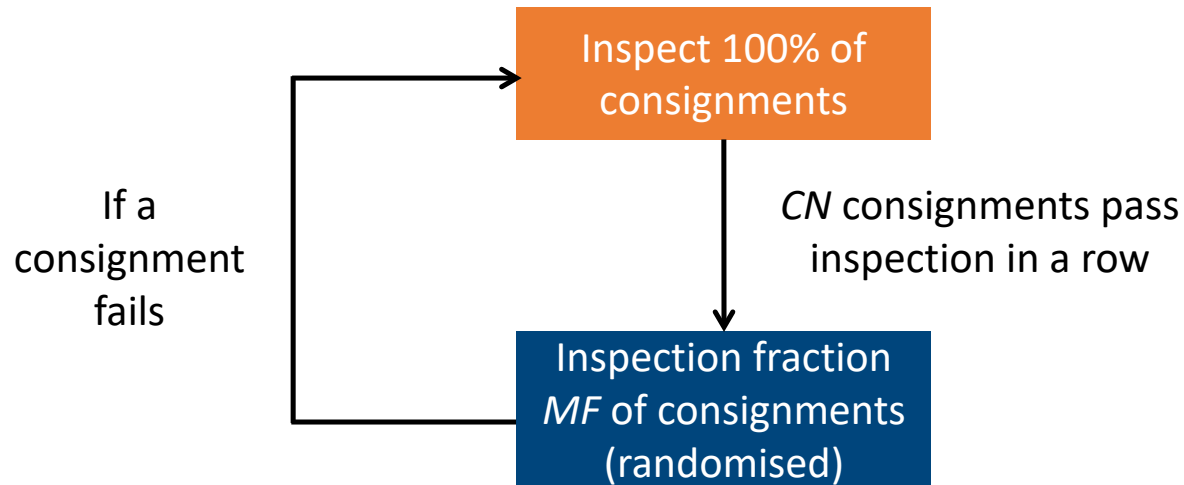
- Analysis of Department of Agriculture's (DA) inspection data
- Stakeholder interviews
- Economic theory and economic experiments
- Field trial



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Field trial:

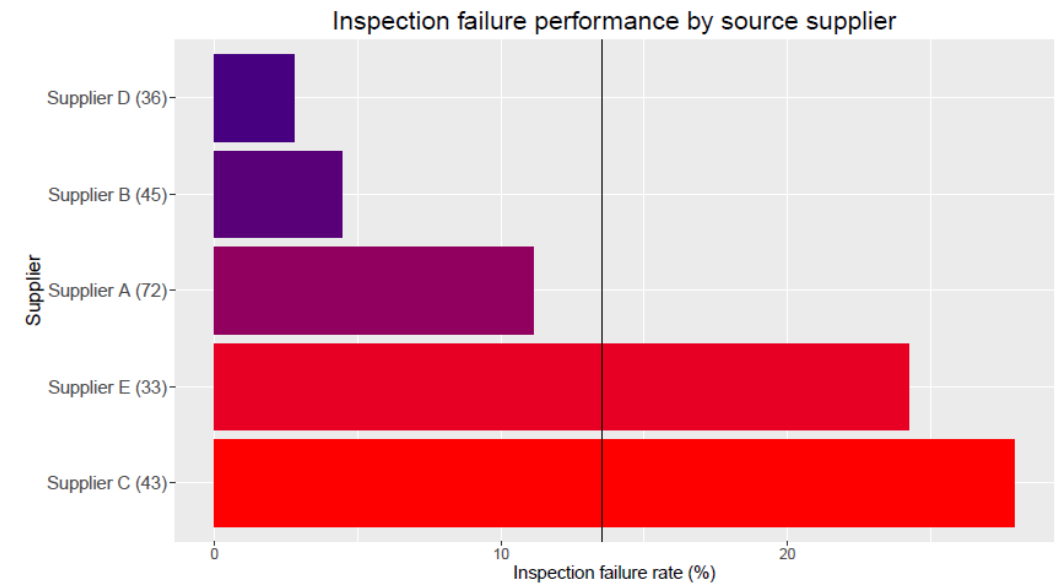
- CSP-1



- Two pathways: vegetable seeds for sowing and peat

- Feedback reports (opt-in, quarterly)

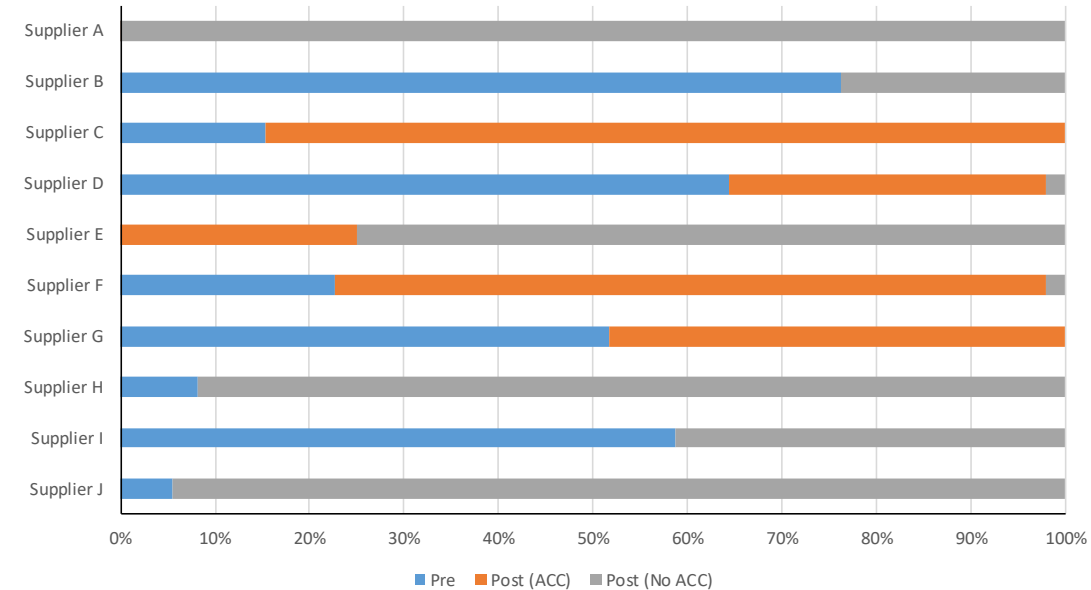
Supplier performance



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Evaluation of the trial (mixed methods approach):

- Many unforeseen issues and complications (IT, legislation, pathway peculiarities)
- some supplier switching was evident
- Internal DA communication/processes could be more consultative to implement change
- Tailored communication (via feedback reports) with importers was well-received and more effective than existing DA communication
- Industry bodies can be a great ally to help with communication



Volume by supplier pre trial and trial imports

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Impact and outcomes:

- Feedback reports are now routinely sent to importers on a growing number of pathways
- DA now publishes its CBIS inspection rules on its website

More broadly:

- A methodology to incorporate incentives into inspection-rule design
- New techniques: economic experiments; stakeholder interviews, qualitative analysis
- Wider DA acknowledgement of need to investigate strategic behaviour of stakeholders



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A screenshot of a web-based questionnaire titled 'Incoming passenger card - Australia'. The form is divided into two main sections: 'Personal information' and 'Biosecurity questions'. The 'Personal information' section includes fields for 'Family name', 'Given name', 'Passport number', 'Flight number or name of ship', and 'Where will you be in Australia?'. The 'Biosecurity questions' section contains a list of 12 questions with 'Yes' and 'No' radio button options. A large, semi-transparent watermark 'BICON' is overlaid across the center of the form. At the bottom right, there is a 'Print form (PDF)' button and a language selection dropdown menu currently set to 'English'.

Acknowledgements:



- DAWR staff (in Canberra and at the ports)
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