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# IPPC Global Workshop on Systems Approaches

Santiago, Chile  
1 – 4 December 2025

In partnership with:



Canada



Australian Government  
Department of Agriculture,  
Fisheries and Forestry

## *Brassica* Seeds: Controlling Blackleg Risk

**New Zealand's proposed systems approach**



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## Outline

- Background
- Blackleg on *Brassica* seeds
- Why a systems approach?
- The development and evaluation process
- Key independent measures
- Programme administration and verification
- Designing the systems approach
- Lessons learned from developing the systems approach



**Biosecurity New Zealand**

**Ministry for Primary Industries**  
Manatū Ahu Matua





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## Background

- *Brassica* seed exports are an important part of New Zealand's seed industry.
- Market access depends on phytosanitary compliance.
- Blackleg is present in New Zealand and regulated by some overseas countries.
- MPI and industry has developed a systems approach to manage this pest.

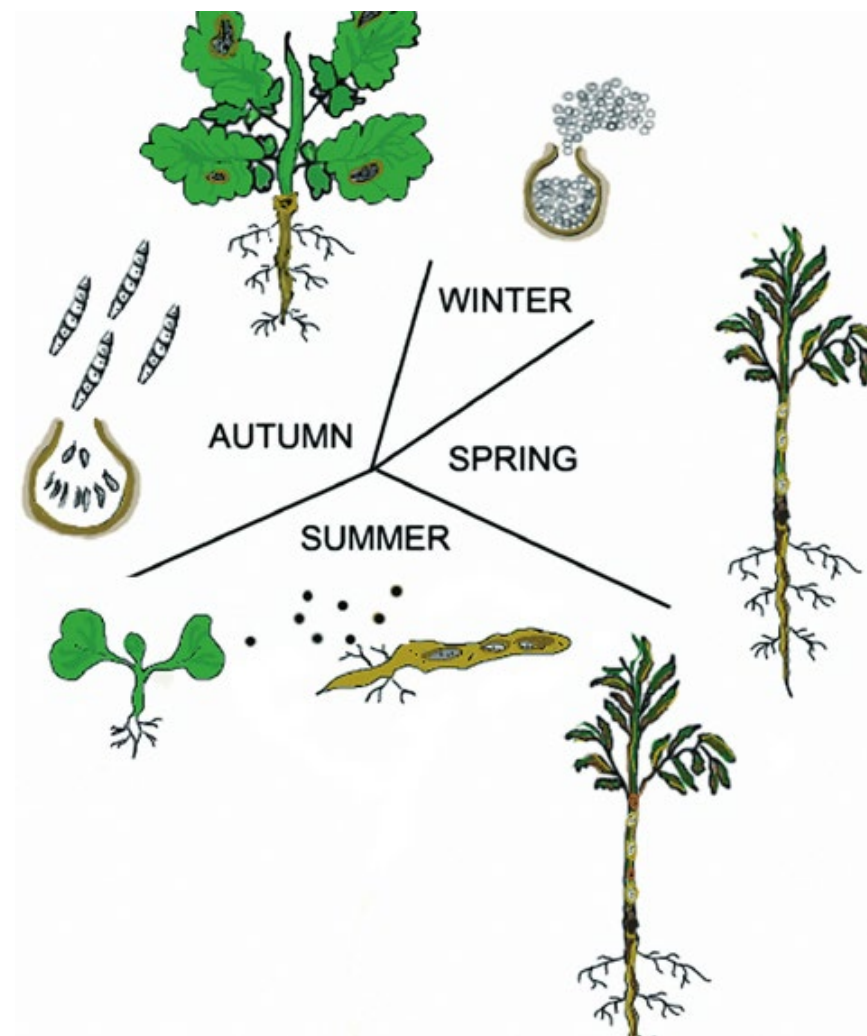






## Blackleg on *Brassica* seeds

- Fungal disease of *Brassica* crops (*Leptosphaeria maculans*).
- Spreads through wind-blown spores and infected seed.
- Causes leaf spots, stem cankers, root rot, and stunting.
- Survives only on infected plant material or seed (NOT in soil).





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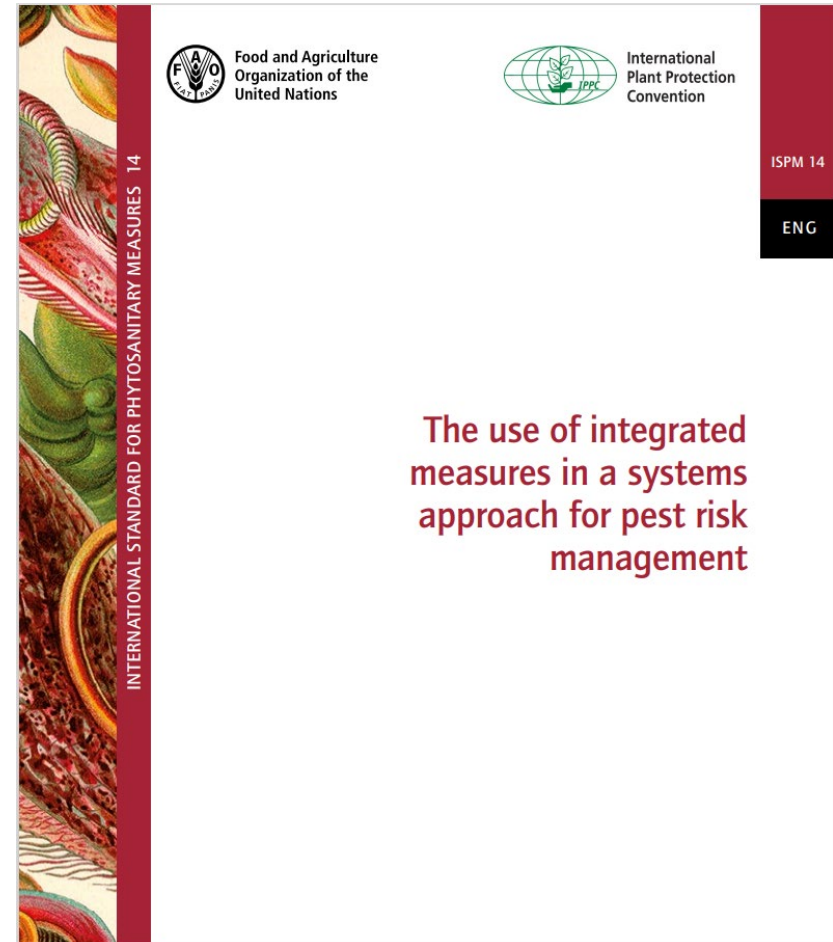
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## Why a systems approach?

- Single measures alone are not considered by some trading partners to be sufficient to manage the risk.
- Combines at least two independent, auditable measures at different control points.
- Can use measures already operating in industry and NPPO practice
- Aligns with ISPM 14 principles and supports New Zealand' phytosanitary assurances while enabling trade.





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## The development and evaluation process

- MPI and industry mapped the production pathway and key risk points
- Checked existing best practice and identified gaps
- Selected independent measures for each risk point
  - Assessed effectiveness using research, report and expert judgement
  - Used information on blackleg biology and seed treatment studies
- Shared evidence with importing countries
- Ensured measures are feasible, practical, and verifiable





## key independent measures

### 1. Pre-planting & pre-harvest controls

**Pre-planting site freedom:** Maintain pest-free production sites through a 7-year *Brassica*-free field history

**Pest free inputs:** Use blackleg-free and fungicide-treated seed

**Pest management:** Apply targeted fungicides and carry out at least two crop inspections

**Sanitation:** Clean all machinery before use

### 2. Post-harvest controls

**Hygiene:** Clean harvested seeds

**Verification:** Verify blackleg freedom through ISTA-approved sampling, then PCR or plate testing

Reject infected seed lots for export

### 3. Export seed treatment

**Pest management:** Apply fungicide coating to manage remaining risks before export





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## Programme Administration and Verification

- Production sites and facilities registered.
- All stages are traceable and documented.
- Independent audits verify compliance at each stage.
- Corrective actions applied where non-compliance is detected.
- Contingency in place if blackleg detected (i.e. infected lots are rejected for export).



Treated and untreated Brassica seeds





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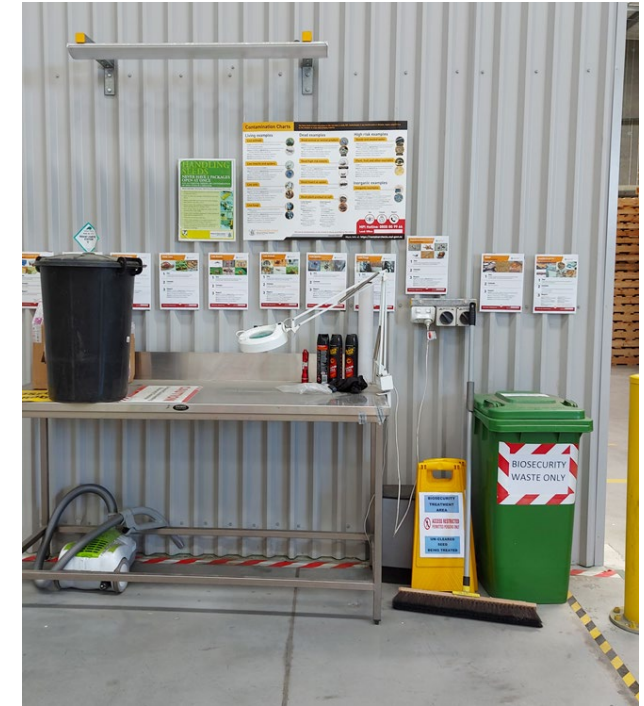
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## Designing the systems approach

- The systems approach:
  - was co-designed by MPI and seed industry.
  - builds on existing certification and good industry practices.
  - aims to provide confidence to trading partners.
  - is feasible, practical, and verifiable.





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## Lesson learned from developing the systems approach

- Early engagement builds shared ownership and commitment
- Industry's operational knowledge and NPPO's expertise make measures practical
- Understanding the cost–benefit of each measure supports good decisions
- Aligning measures with real supply chain practices keeps costs manageable
- Collaboration strengthens risk management and long-term capability.







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# Thank you