

# ABARE Biosecurity Research

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# Content

- Overview of previous research
- Lesson learnt

# Research overview

- **Analysis of biosecurity programs**
  - Papaya fruit fly
  - Citrus canker
  - Equine influenza scenario analysis
- **Economic impact analysis**
  - Foot and mouth disease
  - Karnal bunt
  - Bovine spongiform encephalopathy (BSE)
  - Pandemic influenza
- **Model development/conceptual issues**
  - Framework for cost benefit analysis
  - Bioeconomic, surveillance and general equilibrium models

# Lessons learnt

- **Adaptability of models**
  - Models are expensive to build and maintain
  - Adapting models will reduce cost
  - Opportunity for cooperative modelling activities
- **Choice of framework/model**
  - Biosecurity issue
  - Availability of data and information
  - Nature of pests and diseases
- **Uncertainty in pest and disease events**
  - Data not available
  - Probabilities
  - Population dynamics
  - Environmental impacts

# Lessons learnt

- Multi-disciplinary approach
  - Inputs from scientists
  - Interaction with stakeholders
- Complimentary modelling approach
  - Epidemiological and economic models
  - National and regional models
- Environmental and non-market impacts
  - May not be necessary when market benefits are large
  - Information gaps and variation in techniques
  - Qualitative analysis of non-market effects

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