

# ACERA Project 0901

1. **Project Title:** Demonstrating risk analysis capabilities

2. **Theme:** Biosecurity framework and development

3. **Rationale:**

Expert elicitation protocols (Burgman et al. 2007), cognitive maps (ref), sampling systems for surveillance and audit (ref), Bayes nets (ref), interval analysis methods, Monte Carlo simulation, methods for combining disparate data (ref) and multicriteria analysis (ref) have all been recommended for inclusion in biosecurity risk assessment frameworks. If they are to find a place among standard operating procedures in biosecurity, it will be important assess if they are useful in the time frames, social circumstances and data environments that typify biosecurity risk analysis in Australia. This project aims to evaluate the utility of these methods and their potential to support decision-making, using a case study that reflects many of the conditions experienced by those who conduct pest and import risk assessments. It will document the outcomes of the use of these tools, and will discuss their strengths and weaknesses in a biosecurity context. It will evaluate how these tools may be employed to support decisions to intervene to reduce risks below the Acceptable Level of Protection.

This project is an important step in integrating ACERA's strategic objectives. It will take a set of somewhat disparate tools, each of which has been developed to operate in a part of the biosecurity continuum, show how they apply, and illustrate how they may articulate with one another to support biosecurity decision-making.

4. **Outputs**

Deliverables include:

- Stage 2. Report outlining the scenario to be used in the demonstrations.
- Stage 6. Draft report documenting the outcomes of the demonstrations.
- Stage 7. Final report, synthesizing the potential utility of a range of methods for import risk assessment.
- Dissemination locally is ensured by the participation of the two critical experienced import risk analysts. Wider dissemination will be facilitated by drafting of a summary paper outlining the results, for publication in a peer reviewed journal.

5. **Time frame:** Commencing: July 2008; finishing: June 2009

6. **Project leader(s)**

First name	Surname	Location	Organisation	% Time per year
Mark	Burgman	Melbourne	ACERA	10
Mike	Nunn	Canberra	BA	5
Bill	Roberts	Canberra	BA	5

7. **Resources**

**A. Funds**

Financial years of requested funding	08/09
<b>Project Total</b>	<b>\$67,550</b>

Financial years	<b>08/09</b>
<b>Total</b>	\$44,000

8. **End Users**