



Project: CRC62042

Exotic fungal spores in the Australian Plant Biosecurity context

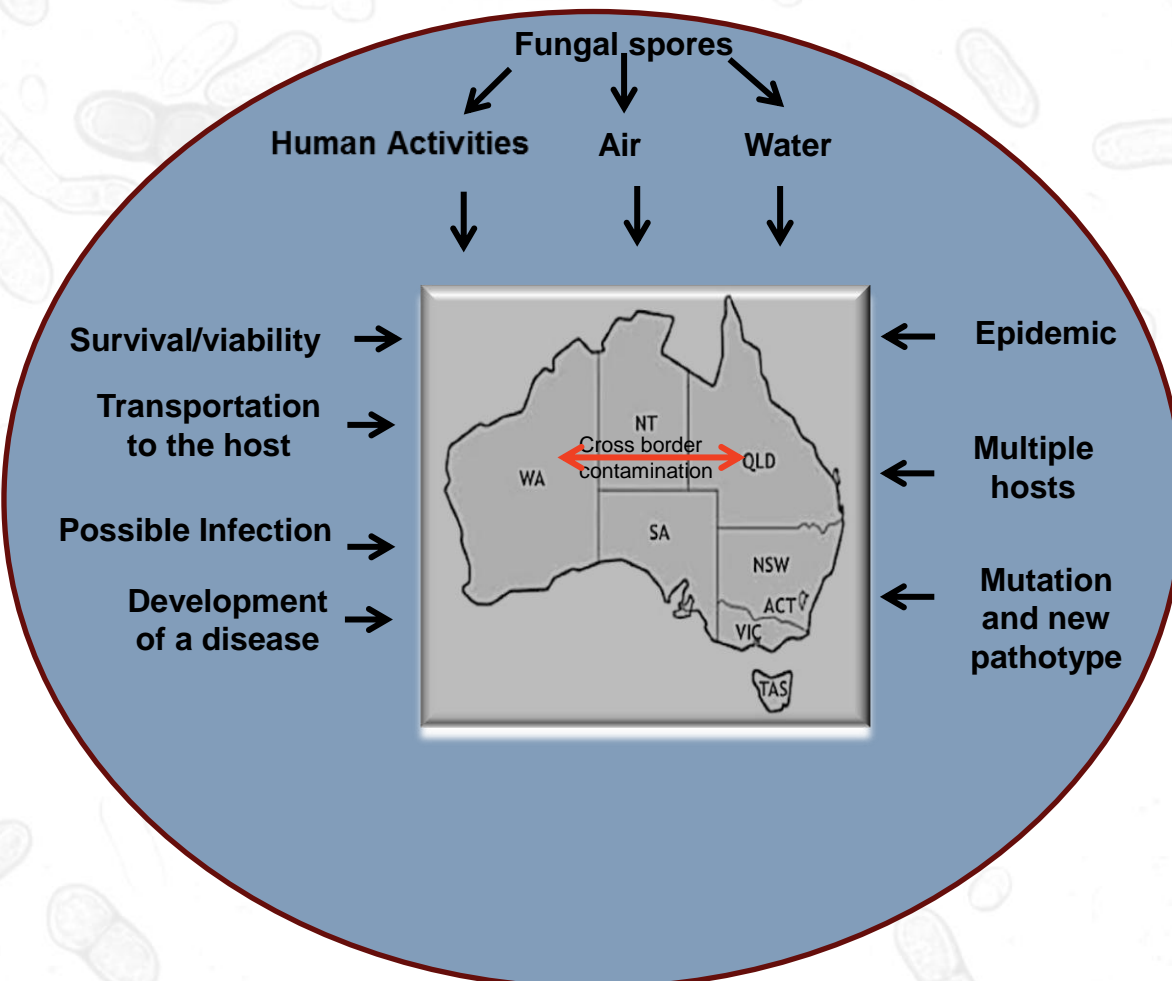
Papori Barua
PhD Student



Problem being addressed

- Different entry pathways
- Role of different materials as fungal spore carriers
- Spore survivability
- Decontamination of the contaminated materials

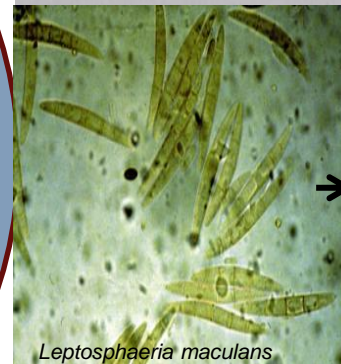
Problem being addressed



Puccinia striiformis f. sp. tritici



grains.agric.wa.gov.au



Leptosphaeria maculans



grains.agric.wa.gov.au



Kabatiella caulivora



agric.wa.gov.au

Who will use research?

- Dept. Agriculture
- Quarantine WA
- Defence
- Researchers
- Industry e.g. Agriculture, Mining

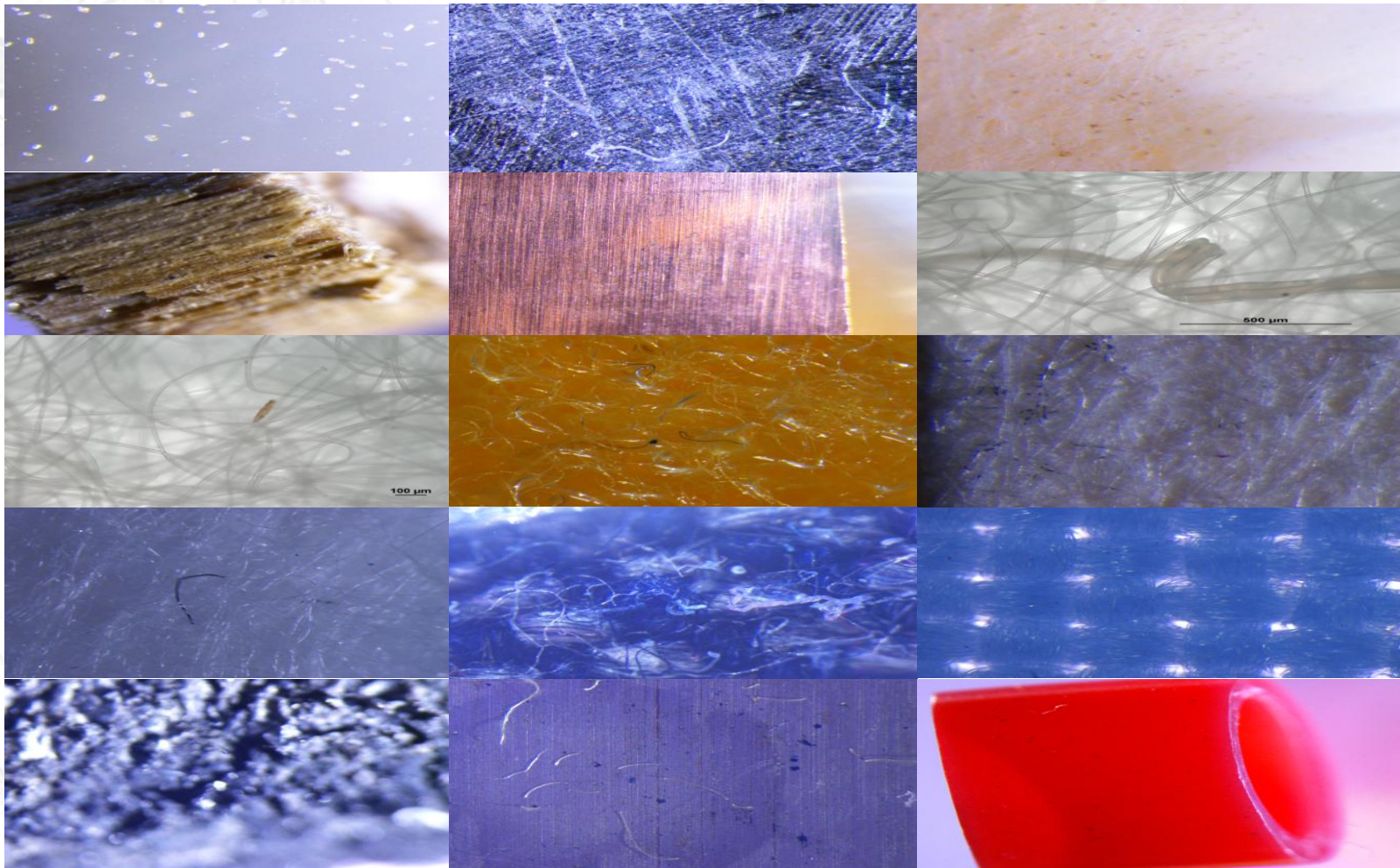
Who will directly benefit from the research?

Source: [http://www.crc.gov.au](#)

- Beneficial to Dept. of Agriculture
- Plant Health Australia (PHA)
- All state government quarantine risk management groups
- Research community
- Industry
- Farmers
- Trades

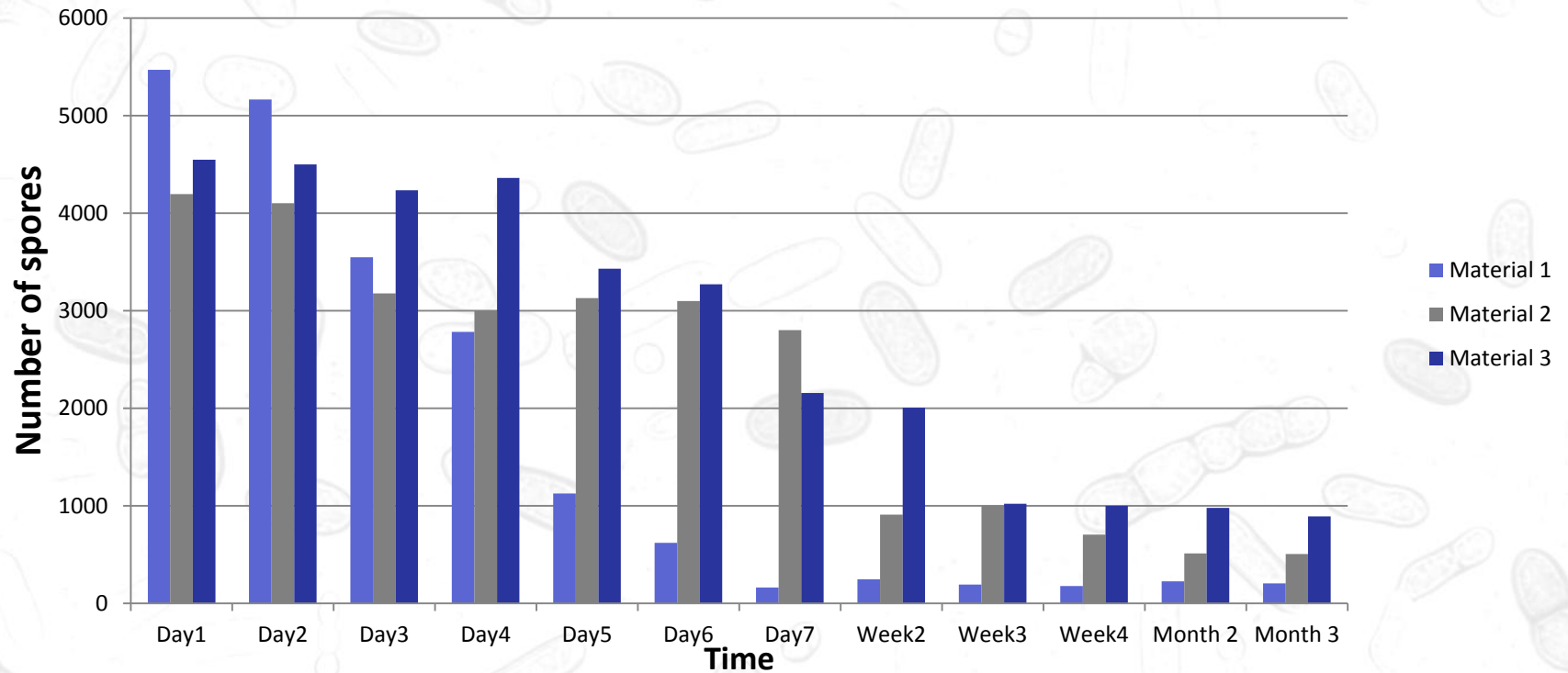
Results so far

Materials as spore carriers



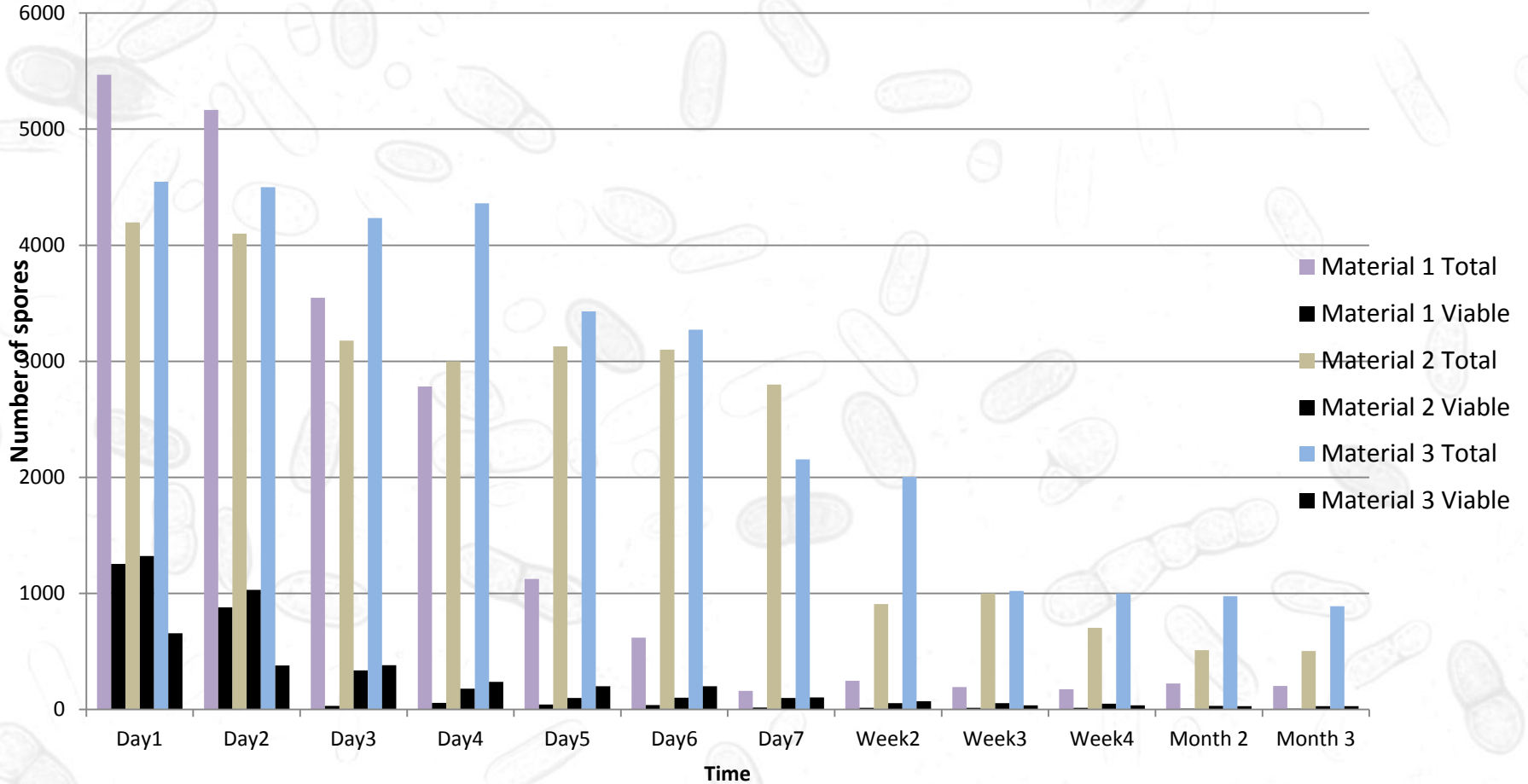
Results so far

Isolation of spores from different materials over time



Results so far

Survival of spores over time



Challenges and issues arising from the research

- Developing a system to detect multiple pathogens, multiple factors in a single experiment
- Developing a rapid methodology to determine the number of spores and viability

Prospects for success

- Excellent !!



- W/Prof. Martin Barbetti (Principal Supervisor, UWA)
- Dr Mingpei You (UWA)
- Dr Kirsty Bayliss (Murdoch University)
- Dr Vincent Lanoiselet (DAFWA)

- Plant Biosecurity CRC
- University of Western Australia

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An Australian Government Initiative

