

The previous incursion of sugarcane smut in 2006 has demonstrated the value of the sugarcane industry being prepared for biosecurity threats.



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Project details

Key Focus Area: 3

Pest, disease and weed management

Project names

Securing Australia from PNG biosecurity threats

Integrated disease management of sugarcane streak mosaic in Indonesia

Project numbers

2015/046

2013802

Project leader

Rob Magarey

Project end dates

August 2017

December 2018

SRA scientists preparing to combat foreign threats

SRA scientists have recently received funding for research into exotic pest and disease threats in Indonesia and Papua New Guinea (PNG). By Rob Magarey

This research is essential for preparing our industry to deal with an incursion by the major pests and diseases that are present in neighbouring cane-growing countries. The incidence of Panama disease TR4 in the banana industry near Tully, and the previous incursion of sugarcane smut in 2006, both highlight our need to be prepared.

Our industry has developed good relationships with researchers in Indonesia and PNG and these collaborations will assist us to develop the tools we need to combat the threats, should they arrive.

Indonesian research, worth \$850,000 over four years, will be addressing the viral disease Sugarcane Streak Mosaic (SCSMV) which is prevalent through much of the sugarcane industry in South East Asia, including countries such as China, Indonesia, Thailand and Vietnam.

The project aims to develop rapid diagnostic tools and resistance ratings for our varieties. It will also determine the yield losses caused by the disease, how the disease spreads and the most effective management strategies.

The project will include plant pathologists, entomologists and extension staff from Indonesia, Australia and France.

The PNG research follows on from a five year project that addressed management of the very important sugarcane moth borers, a major pest group which has been kept out of our industry through vigilance and strict quarantine.

Moth borers can devastate crops and are considered the major insect pests of sugarcane in most overseas countries. Screening of our commercial varieties for resistance to these pests and diseases will be one of the key outcomes from the work.

Other aspects of the project include the description of a new species of one of the downy mildew pathogens in PNG (significant on a world basis) and better characterisation of the Ramu stunt virus.

Each aspect of the project will deliver outcomes to the Australian sugarcane industry and ensure that if one of these threats reaches our shores, the industry will be in an excellent position to either

eradicate, minimise the effects of, or to manage the issue with minimal disruption to commercial sugarcane crops.

SRA is working with industry, governments and our neighbouring countries to be prepared for possible future incursions of high risk pests and diseases.

We can't afford to wait until an exotic pest or disease reaches our shores before we undertake the research necessary to diagnose the cause, identify appropriate management tools and to screen our varieties for resistance. The saying 'a stitch in time saves nine' is never more appropriate than with biosecurity issues facing the Australian industry.

A cooperative project with Plant Health Australia is updating the Sugarcane Industry Biosecurity Plan, which is a document that brings together all of the information needed for responding to an incursion of an exotic pest or disease.

The information provided by the overseas research will be captured in the Sugarcane Industry Biosecurity Plan and will guide the industry in the event of any future incursions.