

**Establishment of a passive insect
surveillance trapping system for the
processing tomato and seed potato industry**



Passive Trapping Surveillance



WINTER FARM INCORPORATING **FARM SAFETY**



Men build up spud security

Meeniyian link to horticultural traps

Matt Dunn

IT may seem like an odd set of circumstances, but the Meeniyian Men's Shed is playing a vital role in protecting Australia's potato and tomato industries.

Recently the group – who is generally devoted to creating some nice handmade furniture – found itself producing DNA traps for AuSPICA, the authority responsible for seed potato certification in Victoria, South Australia and northern New South Wales.

The traps, which are placed around crops, are used to trap aphides and identify the viruses they may be carrying.

It's a problem that can cost the industry millions of dollars per year in lost production.

AuSPICA's Nigel Crump said he had approached engineering firms about building the traps, but the construction would have proved too costly and difficult.

Casting around for an alternative manufacturer, Mr Crump spoke with Meeniyian potato seed grower Roy Beaumont, who suggested he have a chat to the Meeniyian Men's Shed.

With a vast amount of talent in the group, including former engineer John Hattam, the members were well equipped to embrace the challenge.

"We got the traps built, which is exciting. The next exciting thing is the journey they'll go on next. To my knowledge this is something that's never really been done," Nigel said.

"There are many applications to identifying the aphides that fly in. We've got a couple of viruses, among them potato virus Y, which has become a big problem in the past five years. It costs the industry millions of dollars, but we don't know where it's coming from all the time.

"Hopefully through these traps we can pinpoint

what's about. It may be an aphid that's only there for an hour, has a nibble on a potato, decides it doesn't like it, but has already transmitted the virus.

"If we know what's started, we've got a better picture of what's causing the disease. From a biodiversity point of view we want to safeguard ourselves from having it, and if we do have it, readily respond."

Mr Crump said that with the aid of the traps, it would be easier to identify where the viruses were located – allowing the authorities to close down regions and attack the virus.

It may mean that, Ballarat (as an example) may be affected, but things remain OK in South Gippsland.

Alternatively, if a virus is identified in a certain place, more traps can be deployed around the state to find out whether the virus has become a major outbreak.

Another threat is posed by the Zebra chip disease, which has not been identified locally but has authorities in a state of hyper-vigilance.

The traps can also be used to offer the same protection to the tomato industry.

Mr Hattam said he was hopeful the men's shed's work would have a real impact on protecting crops around the state.

"It was an interesting job working on the traps. There's a lot of stuff in it – roller bearings and lots of other components. We've made 40 of these, with 14 of the shed's members working on them. It's taken us a fair few months to make them all," he said.

"It doesn't look like a lot, but there's a lot of work in it in threading all the rods and getting the right shape. We've had a guy on a sewing machine playing around for ages getting it right. It hasn't been simple.

"Once I heard that it was a project that was going to save the tomato and spud growers, I just thought 'Let's have a go at it'."

"...this is something that's never really been done..."

AuSPICA's Nigel Crump.



TRAPPED BY SUCCESS: Meeniyian potato seed grower Roy Beaumont, AuSPICA's Nigel Crump, Meeniyian Men's Shed's John Hattam, Albert Jans and Doug Kuhne, and AuSPICA's Mitchell Gorman.



TAKE NOTE: sheep farmers are urged to seek National Livestock Identification System tags now.

Tag changes affect sheep producers

Location of Trapping Network

- 40 traps were equally split between the processing tomato and seed potato properties.
- Processing tomato properties - Corop, Rochester, Boort/Kerang, Lake Boga and Echuca West.
- Seed potato properties were located at Gippsland, Ballarat (x2), Otways and Portland.

Collection and Preservation Liquid

- 40% propylene glycol



High Throughput DNA Technology

- Development of technology in Victoria has been delayed
- Samples will be stored for future use at AgriBio
- Industry currently in negotiation with labs in South Australia and Overseas

Future Opportunities

- Discussions are currently underway with Tim Hurst, Senior Officer – Plant Surveillance Design and Analysis, Biosecurity & Agriculture Services, Agriculture Victoria

Acknowledgements

- Growers who trialled traps on their properties
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