

New Auscitrus screenhouse a “game changer”

Auscitrus has strengthened its capacity to protect the nation’s budwood supplies from disease, focusing specifically on any future incursion of HLB, with the completion of its new protective screenhouse.

Grower levies, through Hort Innovation, funded the new climate-controlled structure, which will house budwood trees under insect-screened conditions, ensuring a source of HLB-free budwood for Australian citrus nurseries.

Supply trees at Auscitrus have been traditionally maintained in open-orchard conditions with routine testing but an increased prevalence of HLB in neighbouring countries and greater pressure on Australia’s quarantine borders mean the risk of an HLB outbreak has grown. HLB poses a significant threat because it can be transmitted by an insect vector, as well as in budwood.

The availability of HLB-free budwood is seen as a critical factor in mitigating the spread of any future incursion of HLB, and in redeveloping orchards potentially affected as a result of this.

Auscitrus manager Tim Herrmann described the new facility as a “game changer”.

“All varieties in the future will be grown in pots under screens and we’ll slowly phase out the trees in the field, so we won’t have anything exposed to insects in case we were to get HLB or the Asian Citrus Psyllid in the country,” Mr Herrmann said.

“We hope we never do, and that we never actually need the new facility, but we will be ready if it ever does arrive.”

Mr Herrmann designed the new facility after he and the Auscitrus committee travelled extensively through countries that have installed similar facilities in response to an HLB incursion, including the USA, South Africa, and Brazil.

The plans were revised “over and over again” based on information gathered from each visit.

Key points

- ❖ New protective screenhouse completed
- ❖ Clean budwood grown inside
- ❖ Growers should insist on clean material

“For some time we’ve had an insect-proof foundation repository for our mother trees, this holds one tree of every variety (a second tree is in a separate facility at EMAI). We integrated that existing structure into our new insect screened complex.”

The existing buildings have been linked to the new growing areas with an insect proof atrium.

The majority of the structure is a standard steel frame commercial

nursery structure with twin skin polyethylene on the roof and walls. Cooling pads are installed on one side of the structure and large extraction fans are used to extract the heat.

“We decided not to put roof vents in because they are too hard to insect proof,” Mr Herrmann said.

“All the fans and cooling pads in any area that has to be kept open for ventilation are covered in quarantine-standard insect screen to exclude any insects .

“Where we come into the building rather than having a single door there’s now a sealed double door entry way with positive pressure fans so when you open the door the air blows out past you.

“All staff go through foot baths and hand sanitising procedures. They then go through another door before entering the actual growing area.” Each of the growing areas are also sectioned off with a sliding door.



Auscitrus manager Tim Herrmann in the propagation house in March (just before the structure was completed).



A drone image of the new facility.

All staff have a set of five uniforms – one for every day. When they enter different growing areas there’s a dust coat specific to that growing area so they’re not transitioning pests.

The new facility will be heavily restricted to visitors but special visitors can see everything from a central atrium without having to enter different areas.

“I need to reinforce that we don’t let people into areas where they could compromise the biosecurity of our trees as that would defeat the purpose of what we’re doing.”

The new screen house is capable of producing one million buds annually but Mr Herrmann said double this amount would need to be grown to supply industry demand if there was an incursion.

“The structure has been built with the idea that we will double the size of it in the next 3-5 years,” he said.

“All the infrastructure needed for expansion is already in place. All we need to do is build another base structure, with covers, floors and irrigation.”

Mr Herrmann said development in stages has other benefits.

“We will phase out our current trees over the next two years and have all clean budwood in place before we build the next structure.



Cooling pads in the new facility.

“It’s also going to be quite a strong learning experience in growing budwood in the new facility. We’ve been growing budwood out in the field for 52 years but growing under screen presents a number of new problems. We’re looking forward to the challenge.”

Mr Herrmann said the structure has been funded through grower levies but the operations of the not-for-profit Auscitrus budwood scheme are self-funding through seed and budwood sales. As a not-for-profit all funds must go back into the scheme, and a significant amount of retained surplus

has been poured into this development to supplement the levy funded project.

“Growers need to use it. It’s voluntary to use tested material, but if growers aren’t insisting that nurseries use clean material, then the investment the industry has made may be wasted.

“We hope that once we have the capacity to supply everyone’s needs, all growers will look for tested material and use it.” ●