

NEWS 9

# Greenhouse sources its own power at Murdoch

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The world's first self-powered greenhouse has opened at Murdoch University, triggering a major leap in the fortunes of Perth-based ClearVue Technologies.

The 300sqm greenhouse at the campus — officially opened by Innovation Minister Don Punch on Monday — was built using clear glass panels developed by ClearVue.

Shares in the company, founded by former pharmacist Victor Rosenberg, have surged 32 per cent since the opening, giving it a market capitalisation of \$125 million.

The panels generate their own power via photovoltaics at the edge of the window, which also have insulating properties to help control the microclimate inside the greenhouse.

Murdoch University's geneticist Professor Chengdao Li and his team would use the greenhouse — constructed using a \$1.6 million AusIndustry grant — within its new grains research precinct.

The greenhouse also incorporates a range of sensors that record data which allows for adjustments to create a constant microclimate for optimum growing conditions.

Mr Rosenberg said the ability to control the microclimate would achieve higher yields.

He said leafy plants required protection from harmful UV rays in the same way humans need to protect their skin.

Plants do this naturally by producing a waxy substance that can provide protection.

"The ClearVue glass blocks these UV rays, so the energy required by plants to create the protective layer on leafy vegetables can be preserved to grow bigger, tastier, fresher produce, which leads to improved yields and quality of produce," Mr Rosenberg said.

"Research work we will undertake with Prof Li is intended to demonstrate and confirm this hypothesis."

Mr Rosenberg said estimates indicated the world's arable land had declined by one-third in the past 40 years. By 2050, two-thirds of the world's population is predicted to be urbanised, which would have a further impact on the availability of land for agricultural production, meaning greenhouses using such technology would play an important role in feeding the world, he said.

ClearVue last week announced a five-year licence agreement with Japanese agribusiness Tomita Technologies, a leading greenhouse supplier of more than 70 years.



Inside the greenhouse.