

Coles backs world-first horticulture system

PROUDLY
NSW



Andrew Bodlovich at the state-of-the-art glasshouse in western Sydney.

Edison & UESA, Cobbitty, New South Wales

"Without the support and backing of companies like Coles, this sort of innovation would not be possible."

Andrew Bodlovich, co-inventor of the technology

A world-first horticulture system which grows herbs and barramundi simultaneously in western Sydney is now supplying produce for Coles stores across New South Wales.

Seven years after winning their episode on the ABC Inventors Program, Andrew Bodlovich and Hogan Gleeson's landmark aquaculture concept — to simultaneously grow barramundi and organic herbs with zero effluent — has become a commercial reality.

On a 7 hectare block at Cobbitty owned by the University of Sydney, Urban Ecological Systems Australia has established a state-of-the-art glasshouse where beds of herbs are linked by a complex system of pipes to water tanks containing barramundi.

As the barramundi grow, their waste is biologically transformed into safe plant nutrients and then used to feed parsley, basil and coriander. The only way that water leaves the system is through evaporation from the plants.

The unique and patented system, which is the first of its size and scale in the world, is forecast to produce over 10 times more organically-certifiable food than traditional field horticulture. By producing zero effluent, it is also ideally suited to urban and suburban environments.

UES Australia will sell the herbs and barramundi through its marketing partner, Edison, to Coles each week.

"We are really three blokes from the bush who wanted to do something different," Andrew says about himself, Hogan and Chairman Adam Steel.

"By selling through Coles, we can make our system a commercial reality. Without the support and backing of companies like Coles, this sort of innovation would not be possible."

Coles Chief Operating Officer John Durkan said Coles was delighted to support such an innovative and sustainable producer.

Snapshot

Business

Edison & UESA

Location

Cobbitty, New South Wales

Owners

Urban Ecological Systems Australia (UESA)

Product

Fresh herbs and barramundi

Number crush

5,000m²

Size of the current facility in Cobbitty

1996

The year when Andrew Bodlovich and Hogan Gleeson won an episode of the ABC Inventors Program with their landmark aquaculture concept

Up to 20

The number of employees at the new facility

More than 10

The system is forecast to produce over 10 times more organically-certifiable food than traditional field horticulture

coles
**HELPING
AUSTRALIA GROW**

That's why 100% of our fresh herbs are Australian grown.

"We know our customers want their food to be grown sustainably and UESA takes sustainable horticulture to a whole new level," John says.

"By safely treating and re-using the fish waste, there is zero effluent and the farm can co-exist comfortably in a residential setting."

UES Australia Chairman Adam Steel estimates 90% of the company's income will come from herbs sold to Coles, with the barramundi accounting for 10%.

"The commitment from Coles means that this is the first time in Australia that herbs and barramundi are being produced together in a sustainable and commercially-viable operation that we hope will soon be certified organic," Adam says.

"We are marrying biology and technology to replicate what occurs naturally in nature."

To build the glasshouse and technology, UES Australia has invested more than \$5 million, with \$1.9 million coming from the Federal Government through Commercialisation Australia.

By October when the system is at optimum production, the company will be producing 129,000 plants every 28 days and the equivalent of 15,000 to 20,000 kilograms of barramundi a year.

In the future, the company aims to be carbon neutral — which will be a rare outcome if it can be achieved for food production.

UES Australia is looking at several renewable energy solutions including solar energy for heating and lighting in the glasshouse to become carbon neutral.

To replace chemicals, UES Australia already uses beneficial insects — such as parasitic wasps, predatory mites and lady bugs — to control harmful pests.

Edison director Ben Meadows said the system was designed for use in areas where farmland is at a premium — namely the urban and suburban environments where 75 per cent of the world's population resides.

"This is world-first technology and now that Coles has given us the opportunity to prove ourselves, UESA will soon be able to export this technology to the world," he said.

Ben said Coles was a game changer.

"We introduced UESA to Coles and negotiated an agreement that gave us a fixed price," says Ben.

"When you deal with a central market system, you send it in and hope you can get the right return. Coles gave us certainty, a five-year tenure and something we could bank on when we reached a commercial scale."

"From where we are now, we will scale up ten-fold with Coles' support," says Ben. "It wouldn't be possible otherwise."

As part of UES Australia's lease arrangement with the University of Sydney, the company has a research agreement which allows academic research to be undertaken at the site.

"One aim we have is to produce sustainable food and we are now working with Sydney University to produce a sustainable option by converting household food waste into insect larvae and then processed into fish food," Andrew said.

"Our goal is to be carbon neutral and if we can achieve that with food, it will be an excellent outcome."

Andrew said another advantage of treating and re-using the fish waste was it reduced input costs.

"Nutrients are expensive and becoming more expensive so it's a really important feature that we don't have to buy in fertilizer."

q&a with Ben Meadows

Q: How important is Coles' support in making this project commercially viable?

A: By agreeing to a fixed price over a long term, Coles has gone out on a limb. From where we are now, we will scale up ten-fold with Coles' support. It wouldn't be possible otherwise.



Adam Steel, chairman of Urban Ecological Systems Australia (UESA) with some of the farm's barramundi.