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Soil conditioning — is it worth it?



Horticulture Code of Conduct

Smart urban farm factories



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The Peel Development Commission (PDC) is engaging Murdoch University through their Singapore Centre for Research in Innovation, Productivity and Technology (SCRIPT) to undertake a feasibility study for new forms of urban farming to grow the horticulture industry in the Peel region.

Can you imagine the near future when Peel grows leafy greens in half the production time using 60% energy consumption of conventional farming?

In the context of the Transform Peel program, there will be more emphasis on innovative above-ground food production to address a number of regional issues including nutrient flow in the Peel-Harvey catchment area, sustainable water management, and high unemployment. In this context, new approaches in agriculture are required in the Peel.

Pursuing investment in new forms of urban farming (including potential vertical farms, aquaponics, hydroponics, closed loop etc.) in the region will:

- Stimulate investment in innovative agri-industry production techniques that insulate food production from the natural environment providing biosecurity safeguards, greater intensity, efficiency and increased yield;
- Maximise water efficiency and reduce nutrient run-off;



Photos courtesy of Singapore Centre for Research in Innovation, Productivity and Technology

- Sustain agricultural activities within an urbanising environment; and
- Have the potential to export produce to meet global food demand.

Urban farming is not a well-developed sector in the Peel region (or WA more generally) and there is great benefit in undertaking this initial research for the Transform Peel program.

Given the higher infrastructure costs to develop this form of agriculture there is a need to identify higher value crops to ensure the longer term viability of this production system.

Working with Murdoch University on this initiative presents a number of additional benefits including the linkages to a global network of innovative horticultural companies through its research and development (R&D) arm in Singapore.

► THE Transform Peel program will focus on innovative above-ground food production.

This project builds on work SCRIPT has already undertaken given Singapore's interest in food security and trialling and localising the Singaporean technology.

Working in collaboration with industry partners such as Sky Greens, Panasonic and others will help translate project outcomes into innovative business models, infrastructure requirements and technologies needed to meet Transform Peel objectives. Furthermore, having private sector involved in this research will strengthen industry networks and facilitate investment opportunities.

The project's scope is to investigate the feasibility of a range of technological interventions that may potentially be introduced to the Peel, with the aim of developing a pilot project business case for scaling up farming solutions for both the local and export markets.

As well as undertaking stakeholder engagement in Singapore, the SCRIPT team is visiting Perth and Peel a number of times throughout the project to:

- Verify the accuracy of data/information on WA food exports (e.g. volume, value, type of food), who the major trading partners are, and what the average export prices are;
- Information regarding current supply-chain (understanding the dynamics of the current processes from production to export/consumption e.g. export ports, cold storage, water sources, wholesale/retail dynamics); and
- Nuanced information on water, soil, and energy options.

Information gathered during SCRIPT's stakeholder engagement will assist the response to key questions posed for this study:

- What technologies and alternate farming systems will be most relevant to the Peel region?
- What are the varieties of crops that can be produced in urban farms?
- What are issues that relate to pests and diseases, soil and water-related issues that should be considered? How can these potentially be overcome?
- Price factors: cost of inputs, crop yield, existing market prices for output, global and regional prices, how competitive might the export market for urban farm products be given low farm labour costs prevalent across the Asia Pacific region;




► **SCRIPT'S** Dr Azad Bali and Associate Professor Peter Waring met with Sky Green's CEO Jack Ng.

- Demand and other economic impacts: the evolving food preference of the consumer in relation to pricing affordability;
- Supply chain opportunities within the region and into Asia for Peel as a supplier of farm technology and produce; and
- Infrastructure requirements (e.g. land tenure, transport, logistics, value-add processing).

Associate Professor Dr Christopher Vas is the project lead from SCRIPT. Chris joins Murdoch University from the Australian National University. He is the Director of Murdoch University's first offshore R&D centre SCRIPT and was Commissioner and Executive Director of the Second Murdoch Commission on Food Security, Trade and Partnerships: Towards Resilient Regional Food Systems in Asia.

The PDC and DAFWA were pleased to invite Chris as the guest speaker at the Harnessing Food Trends and Agri-Innovation for Profit Breakfast Event held at Mandurah Quay Resort in March.

While in the Peel, the PDC joined Dr Vas in a number of stakeholder meetings with local government, State Government and the existing growers and food producers in the region. The feasibility study is expected to be finalised mid-2017. SCRIPT will then continue to work with the PDC and State Government to engage with international industry players on investment options. 

MORE INFORMATION ►

Would you like to be a part of this project? Please speak to Janine Hatch at the Peel Development Commission on (08) 9535 4140 or email janine.hatch@peel.wa.gov.au

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