

## Update report – April to June 2023

### Greengrower

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#### Summary of progress

The Programme's work is progressing in synch with the steadier state of production at Greengrower's first controlled environment farming (CEF) site at Hamilton.

#### Project 1 – Proof of concept

Testing of a wide range (cultivars/crops) of leafy greens and the optimisation of the growing system has been finalised.

#### Project 2 –R&D hub

Delay with Massey University property has continued in the establishment of our R&D hub but units have now been located at the R&D site (at AgResearch's Palmerston North premises), and core components are being fitted out and tested to create fully controlled and independent growth rooms.

#### Project 3 – Leafy greens

This project is still awaiting Project 2 to commence at scale. Trials of a variety of leafy green crops have continued to be promising and are about to be continued in detail at R&D hub.

#### Project 4 – Sustainability in CEF

This project has started its early-stage work but is awaiting Project 2 to commence at scale. New growing systems, including new tray designs have been developed and tested to allow scatter seeding and to use new substrates and designs.

#### Project 5 – Multiple harvests

This project is also in its early stage and is waiting for Project 2 to commence at scale. Initial trials and evaluation of multiple harvest approaches have started, determining grow time, growth cycles numbers and harvesting techniques.

#### Project 6 – New varietal testing

Several desktop studies on potential new crops have been carried out for internal review.

#### Key highlights and achievements

- Milestone targets relating to product yield and production efficiencies achieved.
- Engagement with potential industry collaborators continued and interaction with other research providers started including Plant & Food Research (PFR).

- Engaged in 'Growing the Future Indoors' workshop organised by PFR-Callaghan 3-4 April 2023 and hosted excursion to Greengrower facility (over 100 participants).
- Delivered two guest lectures on Controlled Environment Farming (CEF) for 3<sup>rd</sup> year horticultural students at Massey University.
- Met with international delegation from Northeast Agriculture University (NEAU, Harbin, China) at Massey University to discuss training opportunities within combined BSc/MSc programme in Horticulture.

### Upcoming

- Commence working toward sustainability project targets.
- New varieties testing in R&D facility.
- Further optimising of new tray designs facilitating scatter seeding and to new substrates.

### Investment

| Period            | Co-investor contribution | MPI contribution | Total investment |
|-------------------|--------------------------|------------------|------------------|
| Quarter           | \$179,935                | \$119,957        | \$299,892        |
| Programme to date | \$2,405,763              | \$1,603,842      | \$4,009,605      |



Testing of a wide range of leafy greens and the optimisation of the growing system has been completed, proving the concept.