

26 October 2021

## Quarterly Activity Report and Appendix 4C

- **Product portfolio significantly strengthened – small-scale and mid-size Root Zone Temperature Optimisation (RZTO) system launched to target significantly larger portion of addressable market**
- **Small-scale RZTO system designed for home growers and can be utilised in up to 30 pots, plants, grow bags or directly into soil**
- **Mid-size system can be used across 200 pots and plants, aimed at nurseries and small commercial growers**
- **Allows Roots to increase market share in the global gardening market, a total value of US\$104Bn in 2020<sup>i</sup> and the global nursery pots and planters market, expected to reach over US\$1.4Bn in value by 2025<sup>ii</sup>**
- **Recent products are designed to be installed by the end users and highlight strategic pivot amidst ongoing COVID-19 pandemic**
- **Subsequent to the end of the period, Notice of Allowance from the United States Patent and Trademark Office (USPTO) for its Heat Exchange probe technology was secured**
- **Grant of final patent approval expected imminently – adds to the Company’s strong IP portfolio**

**Roots Sustainable Agricultural Technologies Limited (ASX: ROO, “Roots” or “the Company”)** is pleased to provide this update to shareholders for the period ended 30 September 2021 (the ‘quarter’).

### **Operational Overview:**

#### **New small-scale and mid-size Root Zone Temperature Optimisation (RZTO) system launched:**

Following extensive R&D and product development initiatives, the Company launched a new, small-scale RZTO system to target additional market segments including home gardeners and non-commercial growers. The new offering is designed to assist home gardeners and others to cultivate food and other ornamentals under local weather conditions, delivering greater food security and superior cultivation quality.

The small-scale system utilises the same design and intellectual property (“IP”) as the Company’s existing, proprietary RZTO technology. It has an easy to operate electric heat exchange pump and can be used with up to 30 heat exchange probes for insertion into pots, grow bags or directly into soil.

It is designed to provide greater food security to gardeners and growers. By maintaining optimal root zone temperature year-round, it allows food and ornamentals to be grown through periods of extreme hot or cold weather. This provides for food production to take place locally, without the use of harmful pesticides and long-distance freighting. It also reduces greenhouse emissions and establishes a lower carbon footprint in communities.

Subsequent to the end of the period, the Company also debuted a mid-size RZTO system, designed to service up to 200 pots of plants. The mid-size system is aimed at nurseries and small commercial grow operators, as well as to provide proof of concept to potential customers ahead of larger orders. The Company is generating strong interest and has secured its first sale into Singapore.



Both systems are available to buy outright or on a lease basis. Each solution can be installed by the end customer, without the need for a technician and highlights the Company's adaptive marketing approach towards COVID-19 restrictions. Roots is confident that the 'plug and play' system will reduce barriers to entry and enhance uptake.

The recent product launches now allow Roots to offer its innovative technology in three varying sizes and target a larger segment of the addressable market. Roots is confident that the new product introductions will allow it to increase market share in the world's gardening market, which had a total value of US\$104Bn in 2020<sup>iii</sup> and the global nursery pots and planters market, expected to reach over US\$1.4Bn in value by 2025<sup>iv</sup>.

**Notice of Allowance for US design patent:**

Following the end of the quarter, Roots advised that it had strengthened its IP portfolio and secured a Notice of Allowance from the United States Patent and Trademark Office (USPTO) for its Heat Exchange probe technology. This marks a major milestone towards patent protection in the US, highlighting that an application for a patent is complete and meets all requirements for issuance.

The new design patent provides IP protection for the product in the US market, which is a large and important opportunity for Roots. The 15-year patent term allows an extensive coverage period and provides exclusivity in the US. The notice follows a stringent approval process following an initial submission in November 2019. Roots anticipates a final letter regarding completed registration shortly.

The milestone follows previous successful patent applications in China, the European Union, Australia, Turkey, Israel, the UK and India. It also further highlights the growing demand for the Company's innovative product suite amongst industry participants.

**Financial overview:**

Receipts from customers for the period were US\$116,000, which highlighted a significant increase on the previous quarter (Q2 CY2021: US\$18,000). The increase was underpinned by the sale of the Company's existing technologies. Net cash used in operating activities also reduced on the previous quarter from US\$753,000 to US\$588,000 following a reduction in advertising and marketing expenditure. At the end of the period, Roots retained US\$1.34m in cash at bank.

**Outlook:**

The Company continues to build a strong sales pipeline in Israel and other key markets. Multiple pilot trial programs with new customers are pending, and additional IP registration and product development initiatives are underway. This will allow Roots to considerably broaden its footprint in Israel and internationally.

**Management commentary:**

**Roots Chief Executive Officer, Mr Boaz Wachtel said:** *"Roots has made considerable progress in the last quarter, which will lay a solid foundation for the Company's ongoing growth trajectory. Our new products and recent patent approval allow the Company to significantly expand in Israel and other large markets including the US. We are confident that our technology has the potential to significantly increase food security benefits, reduce energy emissions and assist customers pushing towards reducing emissions."*

*"We are generating strong interest in our core product offering and have begun generating sales into new territories including Singapore. We have a number of pilot trials with potential new clients set to begin shortly and look forward to updating shareholders as this progresses."*

**Corporate**

During the quarter, the Company held its Annual General Meeting (AGM) on 16 September 2021. All resolutions put to the AGM were carried by way of a poll.

Subsequent to the end of the quarter, the Company lodged a Cleansing Prospectus on 14 October 2021 to enable the issue of various securities approved at the AGM including a total of 42,367,533 CDIs and 1,000,000 listed options to

Everblu Capital Pty Ltd for Corporate Advisory and Lead Manager services provided over the period commencing from October 2019 to December 2020.

In addition, the Company issued 6,001,688 CDIs to Six Degrees under its Listing Rule 7.1 placement capacity as consideration for investor relations services provided in lieu of cash fees.

**-ENDS-**

**ASX Listing Rule 4.7C.1**

There were no material developments or changes in business activities for the quarter. Operational expenditure during the quarter was US\$753,000. The majority of this expenditure was research and development, advertising and marketing, staff costs, product manufacturing and administration and corporate costs.

**ASX Listing Rule 4.7C.3**

The following table sets out the information as required by ASX Listing Rule 4.7.3C regarding payments to related parties of the entity and their associates:

Related Party	Amount	Description
Directors (Executive)	US\$155,313	Periodical Director Fees in accordance with Director Agreements*
Directors (Non-Executive)	US\$32,970	Periodical Director Fees in accordance with Director Agreements
Everblu Capital Pty Ltd	US\$21,685	Corporate Advisory Fees (excl GST)

*\*Mr Boaz's Wachtel's remuneration was updated at the Company's AGM under Resolution 27 in the Notice of Meeting dated 16 September 2021*

**About Roots Sustainable Agricultural Technologies Ltd:**

Israeli-based, Roots Sustainable Agricultural Technologies Ltd. is developing and commercialising disruptive, modular, cutting-edge technologies to address critical problems faced by agriculture today, including management of plant's root zone temperatures and the shortage of water for irrigation.

Roots has developed proprietary know-how and patents to optimise performance and reduce energy consumption to bring maximum benefit to farmers through their two-in-one root zone heating and cooling technology and off the grid irrigation by condensation technology.

Roots is a graduate company of the Office of the Israeli Chief Scientist Technological Incubator program.

More information [www.Rootssat.com](http://www.Rootssat.com)

**About Root Zone Temperature Optimization (RZTO)**

Root Zone Temperature Optimization (RZTO) optimises plant physiology for increased growth, productivity and quality by stabilising the plant's root zone temperature at an optimum level year round. Using heat pumps or in combination with Ground source heat exchange (GSHE) installations, ROOTS is able to provide accurate range of root zone temperatures for farmer and the plants to obtain the multiple benefits with significant energy savings and sustainable manner compared with heating and cooling alternatives.

The technology significantly increases yields and growing cycle planting options, improves quality, mitigates extreme heat and cold stress while significantly reducing energy and pollution associated with climate management in covered agriculture.

*This announcement was authorised to be given to the ASX by the Roots Executive Directors, Mr Boaz Wachtel and Mr Sharon Devir.*



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**Forward looking statements**

This announcement contains forward-looking statements with respect to ROOTS and its respective operations, strategy, investments, financial performance and condition. These statements generally can be identified by use of forward-looking words such as "may", "will", "expect", "estimate", "anticipate", "intends", "believe" or "continue" or the negative thereof or similar variations.

The actual results and performance of ROOTS could differ materially from those expressed or implied by such statements. Such statements are qualified in their entirety by the inherent risks and uncertainties surrounding future expectations. Some important factors that could cause actual results to differ materially from expectations include, among other things, general economic and market factors, competition and government regulation.

The cautionary statements qualify all forward-looking statements attributable to ROOTS and persons acting on its behalf. Unless otherwise stated, all forward-looking statements speak only as of the date of this announcement and ROOTS has no obligation to up-date such statements, except to the extent required by applicable laws.

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<sup>i</sup> <https://www.statista.com/statistics/1220222/global-gardening-sales-value/>

<sup>ii</sup> <https://www.wboc.com/story/43596869/nursery-planters-and-pots-market-size-2021-with-a-cagr-of-25-research-by-business-opportunities-top-companies-data-report-covers-market-specific>

<sup>iii</sup> <https://www.statista.com/statistics/1220222/global-gardening-sales-value/>

<sup>iv</sup> <https://www.wboc.com/story/43596869/nursery-planters-and-pots-market-size-2021-with-a-cagr-of-25-research-by-business-opportunities-top-companies-data-report-covers-market-specific>

## Appendix 4C

## Quarterly cash flow report for entities subject to Listing Rule 4.7B

**Name of entity**

Roots Sustainable Agricultural Technologies Ltd
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**ARBN**

619 754 540
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**Quarter ended ("current quarter")**

30 September 2021
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Consolidated statement of cash flows	Current quarter US\$'000	Year to date (9 months) US\$'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	116	162
1.2 Payments for		
(a) research and development	(64)	(131)
(b) product manufacturing and operating costs	(44)	(68)
(c) advertising and marketing	(74)	(390)
(d) leased assets	-	-
(e) staff costs	(312)	(689)
(f) administration and corporate costs	(233)	(592)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	-
1.5 Interest and other costs of finance paid	2	(3)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (institutes)	21	(21)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(588)</b>	<b>(1,732)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(1)	(5)
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

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Consolidated statement of cash flows		Current quarter US\$'000	Year to date (9 months) US\$'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses		
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	45
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(1)</b>	<b>40</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>-</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,920	3,067
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(588)	(1,732)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1)	40

Consolidated statement of cash flows		Current quarter US\$'000	Year to date (9 months) US\$'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	17	(27)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>1,348</b>	<b>1,348</b>

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts		Current quarter US\$'000	Previous quarter US\$'000
5.1	Bank balances	1,348	1,920
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,348</b>	<b>1,920</b>

6. Payments to related parties of the entity and their associates		Current quarter US\$'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	210
6.2	Aggregate amount of payments to related parties and their associates included in item 3	-

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*

**7. Financing facilities**

Note: the term "facility" includes all forms of financing arrangements available to the entity.

Add notes as necessary for an understanding of the sources of finance available to the entity.

	Total facility amount at quarter end US\$'000	Amount drawn at quarter end US\$'000
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 <b>Total financing facilities</b>	-	-

7.5 **Unused financing facilities available at quarter end** -

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

<b>8. Estimated cash available for future operating activities</b>	<b>US\$'000</b>
8.1 Net cash from / (used in) operating activities (Item 1.9)	(588)
8.2 Cash and cash equivalents at quarter end (Item 4.6)	1,348
8.3 Unused finance facilities available at quarter end (Item 7.5)	-
8.4 Total available funding (Item 8.2 + Item 8.3)	1,348
8.5 <b>Estimated quarters of funding available (Item 8.4 divided by Item 8.1)</b>	2.29

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If Item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A.

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A.

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A.



## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 26 October 2021

Authorised by: The Board of Roots Sustainable Agricultural Technologies Limited  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.