

31 January 2022

Quarterly Activity Report and Appendix 4C

Highlights:

- Intellectual property portfolio strengthened – Notice of Allowance from United States Patent and Trademark Office (USPTO) for Roots’ innovative Heat Exchange Probe (‘HEP’) design patent
- Expanded product portfolio with launch of new mid-sized Root Zone Temperature Optimisation (‘RZTO’) system – provides access to new segments and larger proportion of the addressable market
- First revenues for mid-size system booked – orders shipped to customers and distributors in Australia, Singapore and South Africa
- Distribution, sales and marketing LOI secured with Avital d.o.o. for HEP and RZTO technology in the Balkans
- First entry into Africa with LOI secured with Cherry Irrigation SA for the marketing, sales and distribution of Roots’ HEP and RZTO technology
- \$1m placement to sophisticated and professional investors to progress RZTO system business development initiatives and further international expansion
- Roots chosen as one of five finalists in Israeli Ministry of Agriculture competition to demonstrate amelioration effects of agricultural technologies in extreme weather conditions
- Discussions ongoing with multiple potential collaborators – Roots in pole position to capitalise on global movement to net zero and adoption of regenerative and sustainable agricultural technologies

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, “Roots” or “the Company”) is pleased to provide this update to shareholders for the period ended 31 December 2021 (‘the quarter’), together with its Appendix 4C Quarterly Cash Flow Report.

Operational Overview

Notice of Allowance for US design patent:

Roots significantly strengthened its intellectual property portfolio during the quarter, receiving Notice of Allowance from the United States Patent and Trademark Office (‘USPTO’) for the Company’s Heat Exchange Probe technology (‘HEP’).

The Notice of Allowance follows a stringent approval process and is the last major step in the patent application process, highlighting that an application meets all the necessary requirements for a patent to



be issued. Representing a large and important market for the Company, Roots now possesses significant IP protection in several key markets including the US, Australia, China, the European Union, Turkey, Israel, United Kingdom and India.

New mid-size Root Zone Temperature Optimisation (RZTO) system offering

Following the launch of the Company's 'small-scale' RZTO system (*refer ASX announcement: 26 August 2021*), Roots continued its product development with the launch a new mid-size system, called the 'Super Mini'. The system substantially increases the product portfolio and allows the Company to offer its innovative technology in three sizes targeting a larger proportion of its addressable market.

The system utilises the Company's proprietary RTZO technology, which optimises plant physiology for increased growth, productivity and quality by stabilising a plant's root zone temperature year around. The 'Super Mini' system is designed for use in commercial growing operations providing growers with the ability to learn and adopt the technology to specific crops, varieties and growing conditions. As a 'plug and play' system it will reduce barriers to entry and enhance uptake, as well as allow potential distributors and dealers with the ability to test the systems advantages over the short term.

LOI secured with established European agricultural project specialist

During the quarter, Roots secured a non-binding, exclusive Letter of Intent with Serbian agriculture project developer Avital d.o.o. ('Avital') to market, sell and distribute the Company's HEP and RZTO technology in the Balkans.

Avital specialises in the initiation, integration and execution of agricultural projects by utilising their deep technological experience and a highly qualified team. Targeting the Balkan region where they boast a strong established presence, Roots will receive licensing fees for each complete system sold by Avital at a fixed percent out of the end user price.

As part of the agreement, Roots will provide an initial installation of RZTO technology at the Ivan Lepasovic (Blueberry nights) farm, deploying >400 heat exchange stubs into Blueberry growing pots to accelerate growth rate and protect the crops from extreme heat and cold weather events. Success in the initial project will leave Roots well placed to expedite uptake in the region and establish a strong relationship with Avital.

Expansion into Africa through LOI with Cherry Irrigation SA

Roots continued its international expansion during the quarter with an additional LOI signed with irrigation system specialist Cherry Irrigation SA ('Cherry Irrigation') to market, sell and install the Company's RZTO and HEP technology in South Africa and Namibia.

Roots will provide exclusive marketing, sales and installation rights to Cherry Irrigation for South Africa and Namibia for a commitment period of three years. The agreement is conditioned on an average sale over the three years of no less than €1.0m (~A\$1.55m). Upon the sale and installation of each system, Cherry Irrigation will pay Roots a royalty at a rate to be agreed upon in the definitive agreement, anticipated in early 2022.

The agreement marks an important milestone for Roots, with the continued international expansion and first entry into the African market. Southern Africa boasts several lucrative market verticals such as blueberry production and cannabis cultivation, which present large market opportunities for the Company.



Both parties have agreed upon an initial purchase order of four small scale RTZO systems, which will be used as pilot installations. Roots is confident that this agreement coupled with the effectiveness of the RTZO technology will act as a catalyst for broader product uptake across the Southern African region.

First revenues for 'Super Mini' RTZO booked

Subsequent to the end of the quarter, Roots announced it has secured its initial sales for the Company's 'Super-Mini' RTZO system. Orders were shipped to customers and distributors in multiple international markets including Australia, Singapore and South Africa.

The A\$13,000 in sales to a broad range of partners growing a diverse range of crops, highlights the capability of the system to provide ideal growing conditions under unique and challenging environments and weather conditions. It also provides key building blocks for the Company to begin to achieve much larger commercial orders following the continued acceptance of the technology.

Roots named among five finalists for GrowingIL competition "Keeping it Cool"

Following the end of the quarter, the Israeli Ministry of Agriculture named Roots among five finalists for the GrowingIL competition "Keeping it Cool". GrowingIL connects different parties in the Ag-Tech ecosystem and aims to develop the Israeli Ag-Tech ecosystem and reshape Israeli agriculture to meet emerging global food needs through the implementation of ground-breaking technologies. As a finalist for the competition, Roots will demonstrate amelioration effects of technologies on agriculture in the face of extreme weather conditions.

Corporate overview

A\$1m secured through well supported placement

In December, Roots secured firm commitments from sophisticated and professional investors to raise A\$1m (before costs), by way of a placement of 160,256,410 CDIs. The CDIs will be issued at A\$0.00624 and will rank equally with existing CDIs on issue.

Investors will also receive one attaching option for every four Placement CDIs subscribed for and issued. The options will have a strike price of \$0.02 and an expiry date of 30 September 2023. Subject to receipt of shareholder approval, investors will also receive three attaching options for every four placement CDIs subscribed for and issued, with a strike price of \$0.0125 and an expiry date of 12 months from the date of issue.

EverBlu Capital Pty Ltd ('EverBlu Capital') acted as lead manager to the Placement receiving a 6% cash fee for the total funds raised. In addition, and subject to receipt of shareholder approval, EverBlu Capital will receive up to one option for every one share issued under the Placement (being up to a total of 160,256,410 options). The Broker Options will be issued on the same terms and conditions as the free attaching options issued under the Placement.

Funds from the Placement will be used to further progress the commercialisation of the Company's RTZO systems, broadening its growing international footprint, progress system installation and undertake additional marketing and business development initiatives to drive sales growth.

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\$645K. 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\$66,529	Periodical Director Fees in accordance with Director Agreements
Directors (Non-Executive)	US\$44,863	Periodical Director Fees in accordance with Director Agreements
Everblu Capital Pty Ltd	US\$25,272	Capital Raising Fees (excl GST)
Everblu Capital Pty Ltd	US\$43,607	Corporate Advisory Fees (excl GST)

Outlook

Having secured first sales into a number of new international markets, Roots is in a strong position to capitalise on the growing global push towards carbon neutrality and the adoption of regenerative and sustainable agricultural practises. Successful pilot programs with a number of partners will leave Roots well placed and act as catalysts to unlocking additional opportunities for further sales and uptake of its innovative technology. Discussions with a range of additional collaborators remain ongoing which will further accelerate its international expansion.

Management commentary:

Roots Executive Chairman and CEO, Boaz Wachtel said: *“This quarter saw the Company execute on a number of our business and product development initiatives. It was pleasing to see a number of new international partners implementing the technology, all for a variety of different crops and under a range of varying grow conditions. These new sales and pilot programs will act as a reference point and catalyst for further uptake of our technology as we continue to host discussions with numerous additional collaborators for the deployment of our technology.*

“The shift in global attitudes surrounding the need to reduce our carbon footprint and move towards a carbon neutral economy supports our vision and has led to an increased level of demand for our regenerative and sustainable agricultural solutions. Our technology provides numerous advantages for small scale growers, through to large farmers to reduce their carbon footprint and increase local cultivation for their communities.

“We are well placed to continue executing on our initiatives and I expect to further establish our technology as a core system being used globally by farmers and growers alike. It’s now a matter of capitalising on our initial sales and pilot programs to create further visibility and generating much larger commercial orders.”

-ENDS-

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, lower installation costs, 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

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. Using Ground source heat exchange (GSHE) installations either alone, or in combination with heat pumps, or with heat pumps alone, ROOTS is able to provide accurate range of root zone temperatures for farmer and the plants to obtain the multiple benefits.

This significantly increases yields, increases growing cycle planting options, improves quality, mitigates extreme heat and cold stress while significantly reducing energy consumption by stabilising and optimising the ROOTS zone temperature.

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.

Appendix 4C

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

Name of entity

Roots Sustainable Agricultural Technologies Ltd

ARBN

619 754 540

Quarter ended ("current quarter")

31 December 2021

Consolidated statement of cash flows	Current quarter US\$'000	Year to date (12 months) US\$'000
1. Cash flows from operating activities		
1.1 Receipts from customers	88	250
1.2 Payments for		
(a) research and development	(56)	(187)
(b) product manufacturing and operating costs	(18)	(86)
(c) advertising and marketing	(86)	(476)
(d) leased assets	-	-
(e) staff costs	(224)	(913)
(f) administration and corporate costs	(290)	(882)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	-
1.5 Interest and other costs of finance paid	(64)	(67)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (institutes)	5	(16)
1.9 Net cash from / (used in) operating activities	(645)	(2,377)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(4)	(9)
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter US\$'000	Year to date (12 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)	(3)	42
2.6	Net cash from / (used in) investing activities	(7)	33

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	713	713
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	(51)	(51)
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)	-	-
3.10	Net cash from / (used in) financing activities	662	662

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,348	3,067
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(645)	(2,377)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(7)	33

Consolidated statement of cash flows		Current quarter US\$'000	Year to date (12 months) US\$'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	662	662
4.5	Effect of movement in exchange rates on cash held	66	39
4.6	Cash and cash equivalents at end of period	1,424	1,424

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	1,424	1,348
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,424	1,348

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	155
6.2	Aggregate amount of payments to related parties and their associates included in item 3	25
<i>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.</i>		

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 Total financing facilities	-	-

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.

8. Estimated cash available for future operating activities	US\$'000
8.1 Net cash from / (used in) operating activities (Item 1.9)	(645)
8.2 Cash and cash equivalents at quarter end (Item 4.6)	1,424
8.3 Unused finance facilities available at quarter end (Item 7.5)	-
8.4 Total available funding (Item 8.2 + Item 8.3)	1,424
8.5 Estimated quarters of funding available (Item 8.4 divided by Item 8.1)	2.21

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: 31 January 2022

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.