



ASX and MEDIA RELEASE

31 July 2023

## Quarterly Activities Report and Appendix 4C

### Highlights:

- Design patent with the United States and Canadian Patent Office for its unique Heat Exchange Probe (HEP) technology
- Patent provides intellectual property protection for similar designs of heat exchangers and root zone temperature optimization products in the US agriculture market, for a period of 15 years
- Granted design patent in Canada opens up a broader addressable market for ROOTS products in Canada, which has one of the most sophisticated greenhouse and temperature-controlled agriculture industries globally
- Expanded global sales footprint, with first purchase over for the Mini-Roots systems in the Philippines market
- Market position in the United Arab Emirates with the completion of a second HEPs supply agreement with EliteAgro, a leading UAE-based agricultural company
- HEPs were installed across a 1.6 hectare greenhouse with 9,000 coffee plants, for EliteAgro's Coffee House Murrum Project

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, "Roots" or "the Company") is pleased provide the following update on activities for the period ended 30 June 2023 (the 'quarter') together with its Appendix 4C Quarterly cash flow report.

### Operational overview:

#### US Design Patent for Heat Exchange Probe (HEP) technology

During the quarter, The United States Patent Office (USPO) granted Roots' United States Design Application No. 35/513,369 under the designation 'Adapter for Pipe Joints'. The design patent is for Roots's unique Heat Exchange Probe technology and will provide 15-year protection for the Company from copying, manufacturing or using similar designs of heat exchangers and root zone temperature optimization products in the American Agricultural market.

The granting of the design patent secures an important piece of IP protection for Roots and unlocks significant commercial potential in the lucrative US market. Roots will seek now a number of distribution agreements to sell its patented HEP technology in the United States, following similar patent approval in Canada earlier in the year (*refer ASX Announcement 19 April 2023*).

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## **Second UAE Supply Agreement**

Roots also completed a second root zone cooling project for commercial scale coffee production with Elite Agro. Elite Agro is a leading agricultural company headquartered in the UAE, with operations in several regional jurisdictions.

Roots was engaged by the group to facilitate, supply and install the HEPS as part of a root-zone cooling solution for Elite Agro's Coffee House Murmum Project. The agreement included a shipment of parts and systems from Israel to the UAE, and the installation of two HEPS per plant across the 1.6 hectare, 9,000 plant greenhouse in collaboration with with local Elite Agro teams.

The Company confirms that revenue generated from the project was US\$105,000 (~A\$158,000), in line with its previous announcement.

Via data obtained from the first deployment of the technology, Elite Agro confirmed that it was able to maintain a stable root zone temperatures at 20°C, while inside greenhouse temperatures reached over 40°C.

The results confirmed the capacity of the HEPs technology to maintain root zone area temperatures in a favourable growing range, which is significantly lower than air temperature in the region.

With a strong track record now established in the UAE, Roots hopes to secure additional orders in the region soon given the importance of agri-tech solutions to build commercial agriculture operations in a warm desert climate.

## **International Sales**

During the quarter, Roots reexpanded the global market footprint for its irrigation technology with the first sale of its Mini-Roots system the Philippines. The US\$6,500 purchase order (PO) was made by an agriculture business which will deploy the technology for the root zone cooling of strawberries. The sale was procured through the first Philippines-based ROOTS dealer, and sets an important precedent for the application of the Company's technology in a country that experiences extreme tropical weather events and excessive heatwaves.

## **Corporate overview:**

### **Appointment of Company Secretary:**

Subsequent to the quarter end, the Company appointed Mr Leonard Math as Company Secretary. Mr Math is a Chartered Accountant with more than 15 years of resources industry experience. He previously worked as an auditor at Deloitte and is experienced with public company responsibilities including ASX and ASIC compliance, control and implementation of corporate governance, statutory financial reporting and shareholder relations. Mr Math also previously held Company Secretary, CFO and directorship roles for a number of ASX listed companies.

Ms Sarah Smith also resigned from her role as Company Secretary. Ms Smith has been the Roots' Company Secretary since listing on the ASX in December 2017. The Company thanks her for her services and wishes her well in her future endeavours.



**Management commentary:**

**CEO Mr Boaz Wachtel said:** *"Roots has continued to make very pleasing progress during the quarter and exemplified the Company's ability to generate solid outcomes for customers while expanding its intellectual property suite. This lays a strong foundation for the Company across the remainder of CY2023 and is expected to deliver a number of new agreements to drive revenue growth."*

*"Roots will continue to consolidate its footprint in key markets, to demonstrate the benefits of its technology to a range of major producers and growers, with an aim to further increase sales. We look forward to providing additional updates on sales growth, new market entries and ongoing product development initiatives over the coming months."*

**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\$216,000. The majority of this expenditure was staff costs, product manufacturing and administration and corporate costs.

**ASX Listing Rule 4.7C.3**

During the quarter, approximately US\$99,000 was paid to directors (as shown at 6.1) in accordance with their standard employment agreement.

**-ENDS-**

*This announcement was authorised by the Board of Directors of Roots Sustainable Agricultural Technologies Ltd.*

**Corporate Enquiries:**

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**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. For more information visit [www.Rootssat.com](http://www.Rootssat.com)



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

Root Zone Temperature Optimization (RZTO) systems optimises plant physiology for production security, increased growth, productivity, and quality. By stabilising the plant's root zone temperature, i.e. cooling the roots during the summer and heating them during the winter multiple benefits can be obtained for the farmer and plant: significant yield increase, option for early or late planting, improved quality, mitigation of extreme heat and cold stress and plant's immune system boosting. These benefits are achieved under significant energy reduction and savings compared with air heating and cooling. Using unique heat pumps, either alone or in combination with Ground source heat exchange (GSHE) installations, ROOTS is able to provide accurate stable range of root zone temperatures for farmer and the plants year round. ROOTS is a global leader in Root zone temperature management.

### **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")

30 June 2023

Consolidated statement of cash flows		Current quarter US\$'000	Year to date (6 months) US\$'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	55
1.2	Payments for		
	(a) research and development	(6)	(63)
	(b) product manufacturing and operating costs	-	(48)
	(c) advertising and marketing	(51)	(44)
	(d) leased assets	-	-
	(e) staff costs	(120)	(187)
	(f) administration and corporate costs	(53)	(60)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received (see note 6)	-	-
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (institutes & exchange rate)	14	16
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(216)</b>	<b>(331)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(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 (6 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)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	229	229
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	-	67
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>229</b>	<b>296</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	<b>3</b>	<b>50</b>
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(216)	(331)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter US\$'000</b>	<b>Year to date (6 months) US\$'000</b>
4.4	Net cash from / (used in) financing activities (item 3.10 above)	229	296
4.5	Effect of movement in exchange rates on cash held (see note 6)	(1)	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>15</b>	<b>15</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter US\$'000</b>	<b>Previous quarter US\$'000</b>
5.1	Bank balances	15	3
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>15</b>	<b>3</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter US\$'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	99
6.2	Aggregate amount of payments to related parties and their associates included in item 3	-
<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.*

- 7.1 Loan facilities
- 7.2 Credit standby arrangements
- 7.3 Other (please specify)
- 7.4 **Total financing facilities**

	<b>Total facility amount at quarter end A\$'000</b>	<b>Amount drawn at quarter end A\$'000</b>
	411	411
	-	-
	-	-
	<b>411</b>	<b>411</b>

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

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- 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.

**Loan Agreements – Terms and Conditions:**

Loan Agreement 1 & 3: Lender is RAH STC Pty Ltd (an unrelated party); principal balance is A\$170,000; and

Loan Agreement 2: Lender is Glacier Glow Pty Ltd (an unrelated party); principal balance of A\$40,000.

Loan Agreement 4: Lender is Aldo Sacco (unrelated party); principal balance of A\$200,000.

**Interest:**

Loan Agreements 1 & 2: Interest is not compounding and is payable at a rate of 60% per annum.

Loan Agreement 3: Interest is not compounding and is payable at a rate of 86% per annum.

Loan Agreement 4: Interest is not compounding and is payable at a rate of 20% per annum.

**Repayment**

Subject to the other terms of the Loan Agreements, any funds drawn down by Roots under the Loan Agreements above, together with any accrued Interest, must be repaid by Roots to the Lender on the Repayment Date in cash unless otherwise agreed between Roots and the Lender. In April 2023, the Lenders agreed to convert their short-term loans to CDIs at a deemed issue price of \$0.00827 per CDI.

The current combined balance of short-term loans announced by the Company on 1 September 2022, 18 October 2022 and 14 April 2023 of A\$410,000 (USD281,078) as well as any accrued interest to 8th June 2023 will be satisfied by the issue of 58,428,684 CDIs, subject to shareholder approval

**Purpose**

To be applied towards general working capital.



<b>8.</b>	<b>Estimated cash available for future operating activities</b>	<b>US\$'000</b>
8.1	Net cash from / (used in) operating activities (Item 1.9)	(331)
8.2	Cash and cash equivalents at quarter end (Item 4.6)	15
8.3	Unused finance facilities available at quarter end (Item 7.5)	-
8.4	Total available funding (Item 8.2 + Item 8.3)	15
8.5	<b>Estimated quarters of funding available (Item 8.4 divided by Item 8.1)</b>	<b>0.04</b>

*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: Yes.

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: As announced on 14 April 2023, the Company received firm commitments to raise A\$650,000 before costs (including related parties participation of A\$300,000 which is subject to shareholder approval). Tranche 1 of the Placement (350k) settled on 28 April 2023.

In addition, there are substantial debt to equity conversions that were detailed in the announcement lodged with ASX on 14 April 2023 that will assist with the Company's cash position. The Company is currently finalising with the ASX on a Notice of General Meeting to be dispatched to shareholders to address these debt-to-equity conversions and other placements of up to A\$1.8M.

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: Yes. As per above 8.6.2.

## Compliance statement

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

Date: 31 July 2023

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

## Notes

- 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.