ASX and MEDIA RELEASE

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Plant-based meat department established with leading researcher to pursue large market opportunities

- **Plant-based meat department to focus on collaboration with industry partners to further commercialise Root Zone Temperature Optimisation (RZTO) technology with growers and manufacturers**
- **Initiative to be led by world renowned researcher Prof. Zohar Kerem who is a professor of food chemistry and a holds positions at the Robert H. Smith Faculty of Agriculture and Hebrew University of Jerusalem amongst others**
- **Department established following Proof of Concept study results with up to 77% increase in protein content as a result of RZTO technology on protein-based model plants generating higher yield and total protein per plant**
- **Plant-based meat market estimated to be valued at US$12.1Bn in 2019 and grow to US$27.9Bn in 2025**
- **Demand for meat alternatives being driven by health focused consumers and ongoing R&D – sector gaining popularity following rise of NASDAQ-listed Beyond Meat Inc. (market capitalisation: US$7.83Bn)**
- **Roots is well funded to pursue near term opportunities in the sector**

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or **Company)** is pleased to advise that it has established a new plant-based meat department within the Company to capitalise on recent Proof of Concept (**POC**) study results that show the positive effects Root Zone Temperature Optimisation (**RZTO**) technology on the yield of protein-based plants and to pursue opportunities presented in the lucrative plant based meat market.

The Roots plant-based meat department will be focused on collaborating with industry partners and developing go to market strategies that would allow growers and product creators to use RZTO technology for protein-based plants used in the growing artificial meat industry.

World-leading researcher Zohar Kerem will lead the department on an advisory basis. Zohar Kerem is a professor of food chemistry and has had longstanding career in the agricultural sector. His previous research has covered the chemistry of phytochemicals and harnessing computational tools such as databases, specifically designed algorithms and modelling to predict and elucidate food-drug interactions.

He has been involved in and led a number of international projects that led to the discovery of new biologically active natural compounds in edible plants, and promoting their use by establishing mechanism of action and designing novel foods; discovery and synthesis of novel antimicrobials for food, agriculture, and cosmetics, and developing novel high protein food products.

Prof Kerem has had over 95 published articles in peer reviewed publications and holds five patents relating to food chemistry. He currently holds a number of prestigious positions in Israel, including roles with the Institute of Biochemistry, The Robert H Smith Faculty of Agriculture Food and Environment and the Hebrew University of Jerusalem. He is currently deputy chair of the central committee for food standards with the Hebrew University of Jerusalem, a member of the national committee for nutrition security and head of the expert committees for trade standards of olive oil and edible oils at the Standards Institution of Israel.

The Company chose to establish the department following encouraging results from a POC study at its R&D facility in Bet Halevi, Israel (refer ASX announcement: 17 December 2019). Protocol for the POC was completely

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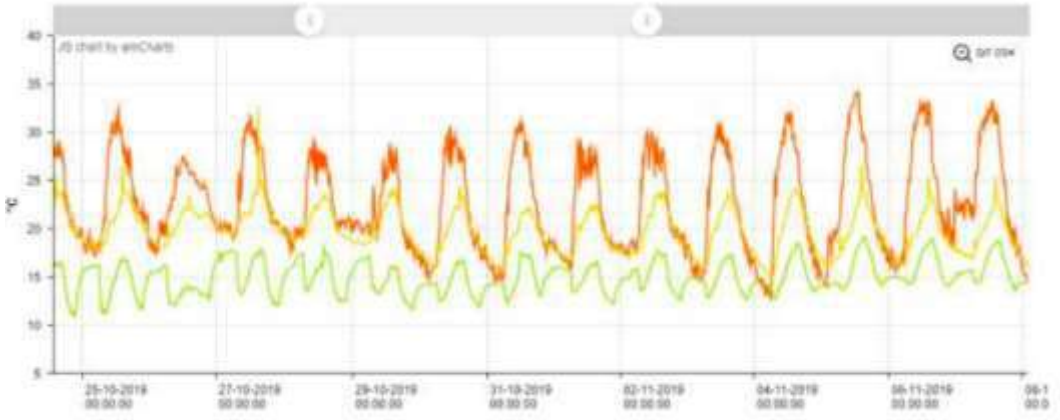
organic, using no fertiliser or other chemicals. During the POC pea and bean plant plants were cooled using RZTO technology, which resulted in a 57% - 67% increase in yield per plant for both peas and beans. Total pod protein content also increased by 77% and 55% in peas and beans respectively in cooled plants, when compared to uncooled plants[i].

These results highlighted that the RZTO use resulted in weight increase per plant and more pods being generated per plant. The Company is confident that this could lead to significant benefits for commercial growers.

The graph below illustrates that while outside measured temperatures peaked at 30°C during the POC, uncooled root zones peaked at 25°C and cooled root zones were never more than 19°C (Refer to ASX Announcement lodged 17 December 2019).



Roots will shortly conduct another trial with beans and peas for the second stage growing cycle in an open field. During this cycle, the plants will be heated using Roots' technology through winter.

The plant based meats industry provides a significant opportunity for Roots. The expected value for the total market in 2019 is US12.1Bn and is expected to grow at a compound annual growth rate (CAGR) of 15%, to reach a value of US$27.9Bn by 2025[ii].

Demand for plant-based meat alternatives is being driven by consumers seeking healthier dietary options and R&D efforts from health experts and food manufacturers. Popularity for the products has also increased following the establishment of NASDAQ-listed Beyond Meat Inc. (market capitalisation ~US$7.83Bn) and America's largest private company Cargill investing in alternative meat manufacturers.

Following the Company's recent placement to raise $2.5m (refer ASX announcement 24 August 2020), Roots is well funded to capitalise on a number of opportunities that it is aggressively pursuing through its plant-based meats Department. The Company looks forward to updating shareholders on progress in the coming months.

Roots Executive Chairman and CEO, Boaz Wachtel said: *"We are extremely excited to have established a plant-based meat department to explore potentially lucrative opportunities in a rapidly growing sector. The Company is also pleased to welcome Prof Kerem to lead the division, who will be instrumental in screening opportunities to provide validation of the Company's technology in enhancing protein in plants.*

"We have already achieved excellent POC results using the key ingredients for meat alternative products and we will now commence work to aggressively pursue collaboration agreements and partnerships with manufacturers in the sector.

"As food security continues to becoming an increasing concern for developing and established nations, our broader business performance continues to perform well. The Company has a strong pipeline of opportunities in the agricultural and cannabis sectors and we look forward to updating shareholders on developments in the near term."

-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 plant's climate management 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

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. Leveraging the principle of Ground Source Heat Exchange (GSHE), ROOTS installs a closed-loop system of pipes. The lower part is installed at a depth where soil temperature is stable and not affected by weather extremes, and the upper part in the target crop's root zone just below the soil surface. Water flowing through the lower pipes is charged by the soil's stable temperature. The heated (or cooled) water is pumped through the pipes installed in the root zone, where the heat (or cold) is discharged.

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.

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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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[i] Protein content was calculated according to common practice in the literature based on ratio between measured N content and crude protein on a ratio of 6.5

[ii] https://www.marketsandmarkets.com/Market-Reports/plant-based-meat-market 44922705.html?gclid=EAIaIQobChMIv6ie4vio6wIVC38rCh0cQAWBEAAYASAAEgIw_vD_BwE