

11 December 2020

New Californian partner signed targeting cannabis sector

- **Agreement to integrate Root Zone Temperature Optimisation (RZTO) and heat exchange stub technology into Humboldt's smart agricultural (SmartAg) offering**
- **SmartAg solution allows growers to wirelessly monitor soil temperature, moisture levels, weather station data and activate various technology at remote locations**
- **Humboldt have an established customer base in California with large exposure to the cannabis sector**
- **Roots has strong global footprint in the cannabis sector including California**
- **First trial deployment to commence in January 2021 with leading cannabis industry participant**
- **Following previous successful cannabis sales globally and in California, this agreement strengthens Roots' cannabis market penetration especially.**

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or Company) is pleased to advise it secured a Non-binding Letter of Intent ("LOI") with existing partner, smart technology provider, Humboldt CCTV ("Humboldt") (www.humboldt.com) to integrate its proprietary Root Zone Temperature Optimisation ("RZTO") technology and revolutionary heat exchange stub product into Humboldt's Smart Agriculture ("SmartAg") solution. Both parties will also progress an initial deployment to test the integrated solution with a leading cannabis grower in the 45 days from signing the LOI.

Humboldt is an established family owned business that specialise in smart agricultural technology and wireless connectivity solutions for farmers, with particular focus in the cannabis sector. The group has a longstanding and established customer base, as well as a team of engineers and sales representatives covering the Californian market.

The development follows an initial non-binding LOI with Humboldt to market, sell and distribute root zone heat exchange kits in Northern California. Under the new agreement, both parties will collaborate to integrate Roots' solutions into Humboldt's SmartAg technology.

Humboldt's SmartAg solution allows growers to wirelessly monitor soil moisture, crop temperature, weather, weather station data and environmental conditions at a grow site. The solution comprises of a portfolio of sensors and Humboldt's secure wireless networks to enable real-time access to information and equipment deployed across remote locations.

As part of the agreement, Roots will invest USD\$100,000 in Humboldt CCTV in return for 10% of its holdings. The invested proceeds will be devoted to marketing and sale initiatives in the CA USA Cannabis sector. ROOTS and Humboldt will also progress the first deployment of the Company's heat exchange stub, managed and controlled by Humboldt's SmartAg offering at a large cannabis



cultivation facility located in Northern California. The trial will be used to progress business development initiatives with other growers and potential customers across Northern California.

California represents a large market opportunity for Roots. California is the top agricultural producing state in the USA and contributed US\$50Bn in revenue for output in 2018ⁱ. It has over 69,000 individual farms and ranches and contributes ~40% of all organic product in the USⁱⁱ.

Roots has had considerable success in California, successfully progressing the installation of four RZTO systems in various weather conditions and over different structure types (refer ASX announcements: 16 October 2019, 23 September 2019 and 1 August 2019). Each of these provided higher yields, shortened growing cycles and production security.

Roots Executive Chairman and CEO, Boaz Wachtel said: *"The extension of our agreement with Humboldt coincides with major regulatory shifts in the cannabis sector, leaving Roots very well placed to capitalise on a number of near term opportunities.*

"We are very confident that our new, integrated smart solution will be well received by cannabis growers in Northern California, as it will allow cultivators to remotely manage many labour intensive aspects of the growing process.

"The US is a key market for Roots and having an established and reputable partner like Humboldt will allow us to build our international footprint further and deliver another competitive advantage at a time of restricted travels. We look forward to updating shareholders on further progress 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 climate management and the shortage of water for irrigation.

Roots has developed proprietary know-how and patents to optimise performance, save labour, 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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This announcement was authorised to be given to the ASX by the Roots Executive Directors, Mr Boaz Wachtel and Mr Sharon Devir.

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.

ⁱ <https://www.ers.usda.gov/faqs/#Q1>

ⁱⁱ <https://www.cdfa.ca.gov/statistics/PDFs/2018-2019AgReportnass.pdf>