ASX and MEDIA RELEASE

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Roots enters the ag-tech sector serving the medicinal cannabis market with RZTO proof of concept

- **World-first root zone cooling proof of concept on cannabis in Greenhouses.**
- **Represents Roots' entry to ag-tech sector serving the medicinal cannabis market, which expects up to $31 billion[1] in sales globally over the next four years.**
- **Proof of concept to examine impact of root zone cooling on crop yield, quality, duration of growing cycle, cannabinoid content and composition.**
- **Collaboration with one of Israel's medicinal cannabis leading growers Canndoc Ltd.**

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or **Company**) has reached an agreement to use its technology to conduct a world-first proof of concept to cool medicinal cannabis roots grown in a greenhouse in northern Israel.

It represents Roots' entry into the ag-tech sector providing micro-climate control equipment for the root zone area to growers in the medicinal cannabis market – which expects up to $31 billion in sales globally over the next four years. It is also an extension of the recent pilot with cannabis conducted in an open field in the United States. Canndoc Ltd is one of Israel's leading medicinal cannabis growers, known for its expertise in quality production and collaboration with leading companies and laboratories.

Roots' technology will cool during the 2018 summer the root zone of cannabis plants throughout the vegetation stage. It will examine its multiple effects on crop yield, quality, uniformity, growing cycle duration, cannabinoid content and composition.

Roots CEO, Dr Sharon Devir said, "This proof of concept is the first time our system is being used on medicinal cannabis. It should demonstrate how universal our technology is and how it can be applied to a diverse range of crops. Like other crops where we use this technology, the purpose of installing the system is to optimize the root zone temperatures - to cool or warm when necessary - until the optimum temperature of the cannabis plant is reached and maintained."

"We expect the system to successfully cool the root systems of the cannabis plants, provide increased protection against heat, and stabilise the temperature range between night and day. It is expected to provide several economic benefits including a shortened growing cycle."

"The proof of concept offers a significant opportunity for Roots' to highlight internationally the benefits of our root zone technology, with competition in the highly-regulated medicinal cannabis sector requiring higher yields and plant quality to meet exacting medicinal standards and lower costs."

[1] Brightfield Group | Report: Canada & International Cannabis Markets 2017

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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 being 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, 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. Leveraging the principle of Ground Source Heat Exchange (GSHE), Roots installs a closed-loop system of pipes. The lower part are coils 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.

ROOOTS technology is based on three main configurations: (a) GSHE only; (b) Hybrid GSHE coupled with a heat pump; and (c) heat pump only. POC is often is demonstrated with configuration (c) only to simulate and calibrate agronomic thresholds. The technology is appropriate for Greenhouses, Nutrient Film Technique (NFT) hydroponic greenhouses, small open fields, young tree plantations and for grow bag set ups.

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

About Canndoc Ltd

Canndoc Ltd is one of the leaders in the Israeli medical Cannabis industry since 2008. It produces top quality cannabis-based products under license from the Israel Ministry of Health following strict protocols and standards.

Canndoc has expertise in breeding, genetics, tissue culturing R&D, production and harvesting methods and protocols for dehydration and curing of Cannabis plants including the extraction of specific active ingredients.

This has resulted in the development of a comprehensive and unique method for cultivation and production of medical grade Cannabis in all facets of the value chain which are being supplied to thousands of patients in Israel since its inception.

Investor Enquiries
Justin Foord
Market Eye
justin.foord@marketeye.com.au
+61 2 8097 1200

Media Enquiries
Tristan Everett
Market Eye
tristan.everett@marketeye.com.au
+61 403 789 096

Corporate Enquiries:
EverBlu Capital
E: info@everblucapital.com
P: +61 2 8249 0000