

## ASX and MEDIA RELEASE

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### Roots to expand into North America's lucrative cannabis sector

- **Following a successful technology showcase to cannabis growers and equipment suppliers, Roots will enter the North America cannabis market.**
- **Roots plans to sell its patented Root Zone Temperature Optimisation (RZTO) heating and cooling technology for greenhouse and outdoor growers.**
- **Roots' patented RZTO technology is ideally placed for use in the trend in North America to move cannabis cultivation from indoor to larger scale greenhouse and open field operations.**
- **Roots has developed the only known and successfully tested open field root zone heating technology**
  - **heated cannabis plants in an open field increased average un-trimmed dry bud and leaf weight by 60 to 283 percent compared to unheated control crops.**

**Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or Company)** has entered North America, to meet the growing demand for climate management technologies within the lucrative cannabis sector.

The decision to enter the North America market follows a successful technology showcase to key cannabis producers in California, Colorado and Canada who have expressed interest in deploying RZTO technology to improve yields as North American cannabis production moves towards larger scale production.

Of particular interest were recent RZTO heating results on cannabis in an open field in Washington State which increased the average cannabis dried un-trimmed bud weight by 60 to 283 percent despite challenging autumn growing conditions of heavy frosts.

Roots' climate management technology minimises the impact of external weather conditions, which is important as growers move away from traditional greenhouse and indoor facilities towards lower Capex and Opex growing methods such as open field cultivation.

As the price of cannabis has dropped to approximately \$350 per pound growers are increasingly adopting cost-effective technologies to improve operational efficiencies.

Roots CEO, Dr. Sharon Devir said, "North America's cannabis markets offer tremendous potential for our root zone heating and cooling technology, and we've been particularly encouraged by positive feedback received during recent North American marketing efforts."

"Pricing pressures in markets are meaning cultivators are looking at ways to increase yield and extend planting seasons for optimal crop rotation. Farmers we have spoken to in several regions in the United States and Canada are excited by the potential for Roots' RZTO technology to provide lower initial capital outlays, maximise crop production and quality and dramatically increases their farm profits."

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“In addition to increased yield and quality, Roots’ technology enables growers to significantly reduce energy consumption. Cannabis producers can see the economic benefits of employing technology to maximise crop production, quality and profit.”

The presentation which was part of the summary left with potential North American customers during the recent technology showcase can be found at the following link on the Company’s website:

<http://rootssat.com/wp-content/uploads/2019/02/Roots-Heating-Cooling-Cannabis-FINAL.pdf>

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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](http://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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