

## ASX and MEDIA RELEASE

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### Roots granted divisional patent for its Irrigation by Condensation (IBC) technology in India

- Patent secures Roots' intellectual property in one of the largest potential markets for IBC technology.
- Tailoring a range of additional solar-operated and electric versions of its IBC systems specifically for small holder units of up to a quarter acre, and mid-size systems for larger plots.
- IBC technology facilitates crop production in semi-arid areas without access to irrigation.

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or Company) has been granted a divisional<sup>1</sup> patent for its impactful and disruptive Irrigation by Condensation (IBC) technology in India. India presents a large market opportunity for Roots' IBC technology with the country currently suffering from the worst water crisis in its history.

Roots' IBC system was specifically designed to enable small and medium scale farmers to grow entire food crops using irrigation sourced only from humidity in the air, even in remote semi-arid areas. Roots' solar operated and electric driven IBC systems have successfully completed proofs of concept for crops as diverse as wheat, beans, tomatoes spinach and lettuce from seedlings at the company's research facility in Israel.

Boaz Wachtel, inventor of the technology and a Roots director said, "The granting of a major patent in India is an important step as we move towards commercialisation of our Irrigation by Condensation technology. Our standalone system offers a solution for Indian farmers, where erratic rainfall and water scarcity has affected food production. More than 75 per cent of India's fresh water is currently used for agriculture at a time when around 600 million people are facing a severe water shortage."

"Our Irrigation by Condensation technology could help create or dramatically increase crop production for animal and human consumption in areas that often experience water scarcity. It could provide food security and income to many farmers, not just in India but globally, and help prevent hunger, poverty and migration due to lack of irrigation water and access to food."

To capitalise on the patent and address the urgent need in India, Roots developing a range of additional solar-operated and electric versions of its IBC systems tailored specifically for small holder units of up to a quarter acre as well as mid-size systems for larger plots.

-ENDS-

<sup>1</sup> Divisional patents are generally used where the parent application describes more than one invention. The applicant splits the parent into one or more divisional applications each claiming a single invention.

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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 'Irrigation by Condensation' (IBC) technology:**

Roots' Irrigation by Condensation (IBC) system allows a farmer to produce food crops using irrigation sourced only from humidity in the air.

First water is cooled in a well-insulated water tank to below dew point temperatures. Cold water is circulated, with a small flow pump, in pipes laid in the field or greenhouse to condense humidity in the air on the external surface of pipes. Pipes are placed near plants in various configurations – generally horizontally at ground level. For many crops no additional irrigation is required to maintain plant survival and food production and initiate a year-round, sustainable food chain for humans and animals. The amount of water produced and required energy depend on relative humidity, air temperature, pipe numbers and surface area, and water temperature circulating in the pipes.

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