ASX and MEDIA RELEASE



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Israeli Government to subsidise basil farmers 30% for Roots' RZTO technology

- Israel Ministry of Agriculture & Rural Development has approved a 30 percent subsidy for basil farmers purchasing RZTO as part of the Precision Ag Program investing in innovative ag-tech
- Follows successful basil pilot where plant roots were heated to grow plants twotimes faster, increasing yield and average plant size by 65 and 35 percent respectively
- Israeli Ministry of Agriculture undertook significant research into the performance and benefits of RZTO prior to granting the subsidy

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or **Company**) has had its patented Root Zone Temperature Optimisation (RZTO) technology approved for a 30 percent subsidy for basil growers by the Israeli Government. The subsidy has been granted under the Precision Ag Program, a collaboration between the Israel Ministry of Agriculture and the Ministry of Finance, which is investing AU\$17.6m (NIS \$45m) in innovative ag-tech and machinery until the end of 2019.

The approval follows a successful pilot in the Israeli winter where the roots of traditional summer basil plants were heated an average of five-degrees warmer using Roots' RZTO technology. The heated plants grew two-time faster than control plantings, increasing yield and average plant size by 65 and 35 per cent respectively.

As part of the approval process, Roots' RZTO technology was subject to lengthy and comprehensive analysis involving economists, agronomists and engineers who examined the 65 percent yield increase, ROI, energy savings and increased profit potential for farmers.

Roots CEO, Dr Sharon Devir said, "This is a significant achievement for Roots as it provides independent government expert verification of the multiple benefits and economic value our RZTO technology offers for farmers. The Precision Ag program is playing a strategic role in the "Next Generation in Agriculture Plan" by the Israel Government.

"We expect the subsidy will increase commercial opportunities with Israel's basil growers. We are examining similar subsidy and funding programs with governments in other jurisdictions to assist farmers in optimising their crop and yield efficiency.

"Being a summer crop, basil needs high temperatures for normal development, making it prohibitive to grow in winter in many parts of the world. However, Roots' RZTO technology has proved it can provide increased plant protection against cold and stabilise the root temperature during day and night more effectively and for less than 10 percent of the cost of traditional heating systems."



"By stabilising the root temperature, basil farmers are able to extend their growth periods, increase yield and gain premium prices for their crops."

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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 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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