

16 December 2020

LOI secured with leading organic Czech Republic hemp producer Hempoint to jointly pursue Hemp based meat opportunities

- **Hempoint is an established organic hemp grower and hemp food manufacturer based in Europe that is advancing a number of opportunities in the hemp plant-based meat sector**
- **Hempoint currently supplies customers in France, Italy and Poland**

ROO and Hempoint will consider in the definitive agreement licensing academic IP, technical development and sourcing of protein from hemp for plant-based meat product initiatives

- **Hempoint also assessing deployment of Root Zone Temperature Optimisation (RZTO) technology to enhance hemp cultivation operations**
- **Both parties now assessing the commercial use of hemp protein in plant-based meat products; Hemp seed is a lean source of plant-based protein, with a very low fat content**
- **A definitive agreement is expected within 60 days**

Roots Sustainable Agricultural Technologies Limited (ASX: ROO, Roots or Company) is pleased to advise that it has secured a non-binding Letter of Intent (**LOI**) with leading organic hemp grower and hemp food manufacturer Hempoint s.r.o. (a company incorporated in the Czech Republic) (**Hempoint**) (www.hempoint.cz) to progress opportunities in the lucrative organic plant-based meat market.

Hempoint is based in the Czech Republic and part of the CzeHemp (www.czechemp.cz) cluster, a non-governmental, non-profit organisation of private and public companies, and R&D focused groups actively developing the Czech hemp and medicinal cannabis industry.

CzeHemp is currently collaborating with a number of academic institutions to develop a range of proprietary methods to increase hemp protein from seeds to higher levels of total plant protein. Hemp seed is a lean source of plant-based protein, with a very low fat content. It contains no cholesterol or saturated fat and carries all of the required amino acids needed to help repair muscle cells, regulate the nervous system and boost brain function.

Hempoint's current hemp protein product is produced by the mechanical sifting of milling of hemp seed cake flour and currently offers 50% protein powder content. Hemp protein powder is an all-natural source of plant protein that is both gluten and lactose free. It has a wide range of uses and is organic certified, allergy free and GMO-free.

Hempoint has established, sustainable and organic production facilities at the Sasov Biofarm, located near Jihlava city, in the Czech Highlands. The group also has an existing distribution footprint for its hemp seed stock and hemp-based food products into key markets including France, Poland and Italy.

In the definitive agreement Roots and Hempoint will review Academic IP, technical development and sourcing of protein from hemp for plant-based meat product initiatives. Both parties will review



the current state of technologies to increase hemp protein content and will choose a specific technology to collaborate and potentially license to use to increase protein content.

The plant-based meat department at ROOTS was established following very encouraging proof-of-concept study results that highlighted a 57%-67% increase in yield per plant for both peas and beans. Total pod protein content also increased by 77% and 55% in peas and beans respectively in cooled plants, when compared to uncooled plants (refer ASX announcement: 17 December 2019). Roots is confident that it can achieve similar results with hemp plants.

Hempoint have also expressed an interest in the deployment of the company's proprietary RZTO technology on hemp cultivation. Roots' plant-based meat division (refer ASX announcement: 28 August 2020) is collaborating with industry partners and developing go-to-market strategies that would allow growers and product creators to use RZTO for protein-based plant use in the growing artificial meats industry.

The alternative meats market is a very large opportunity for Roots. Plant-based meat products are gaining considerable traction, driven by consumers seeking health dietary options and R&D efforts from health experts and food manufacturers. The market is anticipated to grow to US\$27.9Bnⁱ and to over US\$240Bn in the next two decadesⁱⁱ.

Roots Executive Chairman and CEO, Boaz Wachtel said: *"There has been very strong interest in Roots' plant-based meat department and this LOI with Hempoint represents the first agreement the Company has inked off following several inbound enquiries, especially regarding organic substances for plant based meat. We are very confident this LOI will unlock opportunities in this rapidly growing sector and provide Roots with a springboard into Europe's large plant-based meats market.*

"Our immediate next step with Hempoint will be to explore protein increase technology owned ny the Academy and also check the effects of RZTO on hemp growing. We are confident that the technology will have a positive effect on the plant as per previous proof of concept tests. With a shortage of other plant-based meat crops like peas and beans, demand for hemp will surely increase. We anticipate a steady update of announcements as Roots and Hempoint advance this very encouraging collaboration."

-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.marketsandmarkets.com/new-reports.html>

ⁱⁱ <https://www.bloomberg.com/news/articles/2019-10-29/get-ready-for-hemp-and-cricket-burgers-as-peas-face-challengers>