



ROTOGRO

ASX Release

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RotoGro enters the “Space Race” by Applying to NASA and CSA Deep Space Food Challenge

Highlights

- RotoGro has commenced the first phase of the NASA and CSA Deep Space Food Challenge, an international collaboration between the United States of America National Aeronautics and the Space Administration and the Canadian Space Agency.
- The Deep Space Food Challenge is an international competition implemented to incentivise the development of novel technologies for food production necessary for long-duration space missions and other terrestrial applications.
- RotoGro’s application to the Deep Space Food Challenge is its initial foray into the space industry, highlighting the technological diversification and adaptability of its patented and proprietary indoor vertical farming technology.
- This new market opportunity is in addition to Rotogro’s core business.
- Enormous global attention is focussed on outer space and life in outer space. Rotogro’s application to NASA and the CSA places it strategically to benefit from this global focus.

Roto-Gro World Wide (Canada) Inc. (“**RotoGro**” or the “**Company**”), a wholly-owned subsidiary of Roto-Gro International Limited, is pleased to announce that it has commenced the first phase of the NASA and CSA Deep Space Food Challenge (the “**Space Food Challenge**”), administered by an international collaboration between the United States of America National Aeronautics and the Space Administration (“**NASA**”) and the Canadian Space Agency (“**CSA**”). RotoGro’s application to the Space Food Challenge represents its initial foray into the space agriculture sector, a rapidly growing, highly innovative, and valuable area of Controlled Environment Agriculture (“**CEA**”) with far-reaching applications.

Registered and Business Office

Level 5, 126 Philip Street
Sydney NSW 2000
T: 61 2 8072 1400
E: info@rotogro.com

Directors

Michael Carli (Non-Executive Chairman)
Michael Di Tommaso (Executive Director)
Matthew O’Kane (Non-Executive Director)
Terry Gardiner (Non-Executive Director)

Chief Financial Officer

Karla Mallon

Company Secretary

Andrew Palfreyman





The Deep Space Food Challenge and Space Agriculture

The Space Food Challenge has been implemented to incentivise the development of novel food production technologies that can be integrated into a comprehensive food system for long-duration space missions and other terrestrial applications. As the space exploration industry begins to boom, sustainable food production systems to feed space travellers become necessary. “Food is a critical component of all human exploration missions, but even more so for future missions to the Moon and Mars.”¹ Accordingly, space agriculture is a necessity. Currently, astronauts receive food shipped from Earth to, for example, the international space station. However, NASA and the CSA recognise that as both the distances and durations of space exploration missions increase, shipping food from Earth will no longer be a sustainable solution. Astronauts will be required to utilise food production systems to produce food on their own. As the types and durations of future space missions evolve and mature based on new technological advances and scientific input, this will necessitate the development of sustainable food production systems for beyond Earth application.

The Space Food Challenge was created to inspire the agricultural industry to develop innovative food production technologies for space. One of the objectives is to reduce food shipments from Earth by implementing innovative systems that maximize safe and nutritious food production, with efficient use of limited resources, a crucial next step for the sustainable human presence on the Moon and Mars. The Space Food Challenge also assesses applications for terrestrial potential, including on Earth. Input efficiency is essential – the efficient use of space, water, electricity and other resources in food production is critically important to the consumption of resources needed for food production on Earth, especially in extreme environments and resource-scarce regions, such as Canada’s North and other arid environments. Solutions arising from the Space Food Challenge could be implemented in these harsh environments, in addition to densely populated urban areas.

¹ <https://impact.canada.ca/en/challenges/deep-space-food-challenge>

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RotoGro's Application: RotoGro Beyond Earth

RotoGro's application to the Space Food Challenge involves the design of a new RotoGro Rotational Garden System (the "**RotoGro Space Garden**"). The RotoGro Space Garden is based on modifications of RotoGro's current Model 420 (the "**Model 420**") and Model 710 (the "**Model 710**") Rotational Garden Systems to minimise engineering costs. The RotoGro Space Garden is a smaller version of the Model 420 featuring the direct injection feed system of the Model 710, significantly reducing resource inputs while maximizing nutritional outputs compared to other indoor farming technologies. The RotoGro Space Garden will be automated, using RotoGro's proprietary crop cultivation software systems. Altogether, the RotoGro Space Garden enhances the existing, unique benefits of RotoGro's Rotational Garden Systems, optimising both the operational efficiencies and yield per square meter, crucial to the innovation, development, and prospective use of food production systems in space.

RotoGro's CEO, Michael Di Tommaso, states, "The Deep Space Food Challenge is RotoGro's first step into the space agriculture sector. The technology developed by our Design and Engineering team for the Challenge is astounding, demonstrating the versatility and distinctiveness of our remarkable technology. Our Design and Engineering Team, and our Plant Science Team, are commended for their efforts here. In advance of this application, the Company developed nurtured several relationships with prominent private industry players currently focussed on providing sustainable food system solutions for long-duration space voyages, along with others focussed on using space to develop innovative solutions for the challenges we are currently experiencing on Earth – particularly, those arising from climate change, resource scarcity, and population growth. The Company will continue to foster and develop these relationships, strengthening its position in this sector. Entering the space agriculture sector is a natural progression for RotoGro - our vision is to provide sustainable technological solutions for agricultural cultivation, critical to ensuring global food security. As we explore beyond Earth, viable food production technologies become more important. The space industry presents a significant opportunity for the Company. Food system innovation is crucial to progress in space, and we are excited to move to the next phase of the Deep Space Food Challenge, while generating other opportunities to develop and implement RotoGro's technology in this nascent industry."

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This announcement is authorised for release to the market by the Board of Directors of Roto-Gro International Limited.

For more information please contact:

Investment Enquiries

Kirstie DeNicola

Media Relations

info@rotogro.com

About Roto-Gro International Limited

Roto-Gro International Limited (“**RotoGro**”) is an Australian agricultural technology company. RotoGro utilises its state-of-the-art, automated agricultural cultivation technology to provide sustainable and cost-effective solutions to the thriving indoor vertical farming market. The Company’s global operations are focused supplying its proprietary, patented, and patents-pending technology to the indoor vertical farming space for both perishable food (produce) and lawful cannabis.

The core of RotoGro’s technology is its patented Rotational Garden Systems, which provide optimised yields per square meter and significantly lower operating costs when compared to other indoor vertical farming technologies. RotoGro’s Rotational Garden Systems are supported by its proprietary Enterprise Edition iGrow software, state-of-the-art nutrient management system, automation technologies, and in-house design and engineering services.

RotoGro’s in-house engineering teams provide consultative services for full facility designs to produce state-of-the-art facilities equipped with RotoGro’s technology. Further, RotoGro’s research and design team works with its existing customers to ensure their long-term success cultivating high-quality crops.

RotoGro has formalised a collaboration with Verity Greens Inc. for the cultivation of perishable foods (produce). This venture is reliant upon RotoGro’s technology to produce greater yields with lower operating costs. In addition, RotoGro continues to nurture relationships for technology sales and growing management services in the lawful cannabis cultivation space, globally.

RotoGro maintains its focus on expansion into industry-specific synergistic opportunities and exploring strategic partnerships in both the perishable food (produce) and the lawful cannabis space.

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