Heliospectra industry collaboration successfully grows and develops oat and barley in a controlled environment with sole source LED lighting

(GOTHENBURG, Sweden/SAN FRANCISCO, CA, March 16, 2016) – Heliospectra AB (publ) **(OTCQB: HLSPY, FIRSTNORTH: HELIO),** a world leader in intelligent lighting technology for crop cultivation and plant research, have together with Gothenburg University and biotech companies CropTailor and OlsAro, successfully grown cereals (oat and barley) in a controlled environment under sole source LED lighting. The report entitled "*Growth and development of cereals in a controlled environment with sole source LED lighting*" demonstrate the potential to cultivate staple foods in a closed environment anywhere in the world.

The aim of the study was to see how cereals grow under different light conditions, with emphasis on the effects of far red light has on the crops development and flowering. The study was conducted at the University of Gothenburg, in a temperature-controlled growth cabinet. Heliospectra adjustable LED lighting system the LX60 Series was used as the light source. The crops were grown under two different LED light treatments, and their growth and development was monitored during the growth cycle. Growth parameters evaluated during the study were: plant structure, developing time, flowering time, grain quality and yield.

– Both oat and barley are two crops, many don't believe can flower in an enclosed environment with LED grow lights as sole source. Given the importance of these crops, we wanted to demonstrate that this is not the case, and at the same time study the spectrums impact on the crop's development. Our results show that both crops and flower grow well under the right lighting conditions. Even our ongoing studies on wheat looks promising, says Daniel Bånkestad, research and development engineer at Heliospectra AB.

– Our results show that both the oat and barley grow and flower under the lighting conditions studied, but far red light seems to be beneficial, especially for oat. The results we received in the oat unit where far red was included - such as the number of seeds per panicle and seeds per mini ear - is remarkably good, and highlight the potential of this technology, for example, for seed production in a controlled environment, says Johanna Lethin at Gothenburg University.

Results of oat and barley grown under the Heliospectra LX601C light spectrum, far red included

According to the UN, the world population will reach 9.1 billion by 2050, and food production will have to increase by 70% by this time. With this comes the challenge to produce more food for more people, and a more urbanized population, without exploiting more resources such as land and water.
– The results of this study are encouraging and demonstrate the potential of modern LED lighting. The ability to cultivate staple foods such as oat, barley and wheat efficiently in a controlled environment anywhere in the world not only minimizes the use of water but also gives farmers the opportunity to avoid growing in contaminated soil and water, says Staffan Hillberg, CEO Heliospectra.

Read the full trial report on our website: https://www.heliospectra.com/research-and-development

About Heliospectra AB
Heliospectra AB (publ) (OTCQB: HLSPY, FIRSTNORTH: HELIO) (www.heliospectra.com) specializes in intelligent lighting technology for plant research and greenhouse cultivation. The Company's lighting system provides an effective and durable technology for cultivating greenhouse and indoor plants by combining several different groups of versatile light emitting diodes (LEDs) with optics, remote sensing techniques, and a robust heat dissipation solution. This proprietary setup gives growers the ability to control the intensity and wavelengths of the light emitted, creating a spectrum specifically adjusted to different plant species and growth stages to better facilitate photosynthesis. The complete, highly-engineered lamp produces crops that look better, taste better, and have a longer shelf-life than those grown under HID lamps. The technology not only reduces energy consumption by up to 50%, but also helps stimulate growth characteristics and improve plant quality. Other benefits include reduced light pollution, lower mercury use due to the avoidance of traditional HID/HPS bulbs, and less HVAC investment and monthly expense requirements.

Heliospectra products are based on in-depth knowledge in plant physiology and photosynthesis along with a unique way to utilize modern LED technology. After six years of development in Sweden, the company has now begun to expand into the international market. The company has raised more than $ 21 million in capital and has received more than $2.6 million through academic scholarships and grants. It has also received numerous awards for its forward thinking technology. Principal owners: Weland Steel www.welandstal.se, Swedish Industrial Fund www.industrifonden.se, Midroc www.midroc.se, Avanza Pension www.avanza.se.

Forward-Looking Statements

The statements in this press release constitute forward-looking statements within the meaning of federal securities laws. Such statements are based on our current beliefs and expectations and are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control. In addition, such forward-looking statements are subject to assumptions with respect to future business strategies and decisions that are subject to change. Potential risks and uncertainties include, but are not limited to, technical advances in the industry as well as political and economic conditions present within the industry. We do not take any obligation to update any forward-looking statement to reflect events or developments after a forward-looking statement was made.

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