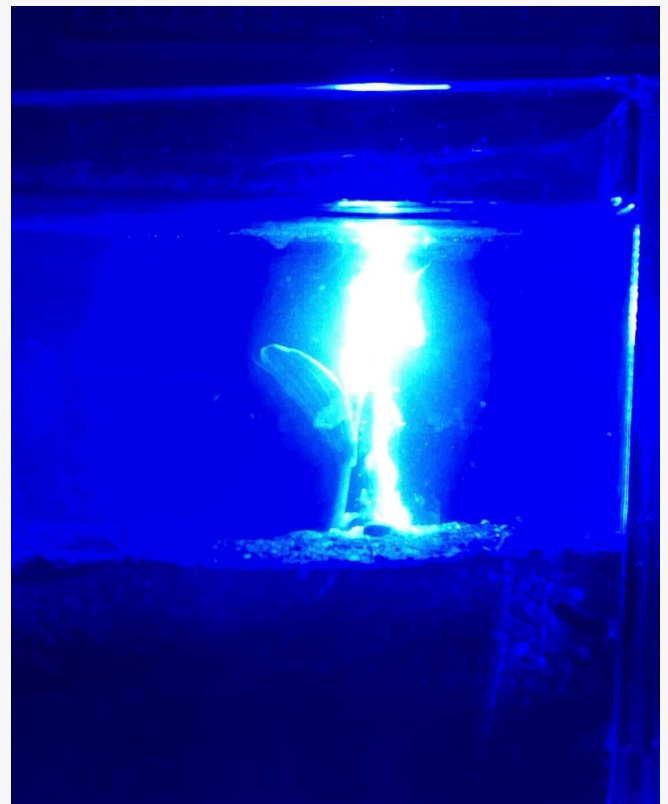


L&A Invents Next Generation Blue Laser Weeding Technology for Agriculture

World's first purpose-built agriculture laser offers 10X improvement in throughput, efficacy, and weeding cost per acre vs existing laser weeding technologies

CHICO, CA, UNITED STATES, September 26, 2023 /EINPresswire.com/ -- Laudando & Associates LLC ([L&A](#)), a California based agriculture technology development firm, announced the unveiling of their revolutionary laser weeding & thinning technology at the [FIRA](#) Robotics & Autonomous Farming Solutions Conference in Salinas, California last week.

The patent-pending technology is a clean sheet design, architected by L&A to maximize the commercial viability of laser weeding & thinning. It leverages blue laser diodes and a unique combination of proprietary hardware & embedded software, including L&A's AgCeption™ perception technology. Together, they've been integrated into a rugged, scalable module, flexibly designed to suit the needs of the global agriculture industry.



L&Aser targeting a plant under water

"Everyone in this space talks about eliminating GMO seed & herbicides, but what we're talking about is solving a 6,000-year-old problem for humanity", stated L&A President Chris Laudando. Dubbed the [L&Aser™](#), the state-of-the-art laser technology was revealed on September 19th, 2023 at the world's premiere exhibition for emerging agriculture technology on L&A's autonomous, all-aluminum, lightweight robotic platform. "Weed pressure is strongest after it rains, and unlike heavier automated weeding implements that can't access water-saturated fields, lightweight L&Aser™ robots can be deployed early, often, and at tremendous scale thanks to an order of magnitude improvement in commercial viability owed to the technological advances and inventiveness of the L&A engineering team."

Whereas existing laser weeding technologies impart heat energy as their principal mode of action, the L&Aser™ utilizes multiple modes of action for a 10-100X improvement in targeted



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organic absorption of laser energy, especially in wet conditions since "water is transparent to the L&Aser™", noted Dr. Nicholas Charipar, L&A CTO and first named inventor of the groundbreaking technology. The 1-2X order of magnitude improvement in efficacy allows the L&Aser™ to exploit its best-in-class tracking system, capable of tracking targeted plants at speeds of up to 2.5mph. Laudando continued, "We can comfortably achieve 1 acre/hour per L&Aser™, but throughput is ultimately a function of the unique circumstances surrounding each

photonic weeding treatment. Weed pressure, size, type, crop, market conditions, etc. all drive the 'ideal' treatment. This could mean maximum throughput is realized with dwell times of 50ms @ 2mph for certain conditions, but in others it may be optimum to remain on target for 125ms going 1.5mph."

Technology demonstrations of the L&Aser™ are immediately available for select growers at L&A's R&D plot and headquarters in Chico, CA. The company announced that they will commence beta commercial service in Yuma, AZ in 4Q23 ahead of the deployment of a fleet of 3-5 L&Aser™ robots configured for 80" beds in Salinas Valley beginning late 2Q24.

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