

LET'S CELEBRATE THE WINNERS

Resource magazine has once again sponsored the AE50 Award program, celebrating companies for their recent developments in agricultural, food, and biological systems. From the many entries submitted in 2021, an expert panel selected the products, showcased on the following pages, for recognition. The award-winning products are those ranked highest in innovation, significant engineering advancement, and impact on the market served.

The products represent the diversity of agricultural and biological engineering, as well as the variety of companies that continue to bring advanced technology and exciting innovations to the marketplace. This year's AE50 recipients join the ranks of many who have been honored for their ingenuity in product development—saving producers time, costs, and labor, while improving user safety as well.

The AE50 Awards had their beginning in June 1984, in a special issue of ASABE's *Agricultural Engineering* (now *Resource*), in which 25 new techniques, inventions, and innovations were showcased. The featured items were



drawn from product information solicited by the Society and screened by a panel of engineers.

From this focus on identifying innovative technology, two years later the AE50 Award program was born. As the announcement stated, "Acceptance in the marketplace is the highest accolade any new agricultural product can receive. But for innovative developments in the last 12 months, a singular honor is to be named one of the year's Agricultural

Engineering 50 outstanding innovations." Product nominations poured in. An enlisted panel of experts reviewed the entries, and in 1986 the first AE50 Awards were presented.

Interest in new technology and innovative applications of existing technology remains constant. Over the years, many award-winning products were patented and their names trademarked. Some were further improved as technology advanced, and with time, won another AE50. But the most important yearly constant: all winning entrants continually strive for excellence, and we are pleased to honor their work with the highest honor in the only awards program of its kind. Congratulations to the winners!



1775NT 24Row30 PLANTER

Deere & Company
Moline, Illinois, USA
deere.com/en/

The 1775NT 24Row30 Planter Model Year 2022 update increases onboard seed and fertilizer capacity while reducing soil compaction. New commodity tanks include a 30-bushel increase in onboard seed capacity and 150-gallon increase in liquid fertilizer capacity over last year's model, with a main frame tracks option that reduces ground pressure under the center section by 70% compared to tires. The track system provided from the factory includes toe-angle adjustment and load sharing capability, reducing heat generation at high speeds and on uneven surfaces. When the planter is in road-transport configuration with seed and fertilizer tanks half-full, the tracks can travel continuously for up to 2 hours at 20 mph.

B-SERIES

SCO2, LLC.
Little Canada, Minnesota, USA
sco2.net

SCO2's technology combines hybrid cold-press and supercritical CO₂ extraction in one step. The patent-pending technology utilizes the chemistry of supercritical CO₂ extraction with the mechanics of hydraulic pressure to produce precision botanical extractions in minutes instead of hours. Real-time remote pressure and temperature monitoring, and the internal linear position sensors within the hydraulic rams provide positional feedback and accuracy. Systems are automated to be user-friendly. Operation is simplified and streamlined, requiring minimal pre-processing with no grinding or milling required. The raffinate exits as a compressed puck, saving valuable operator time, space, and material handling steps. Available in five standard models that process between 16 to 500 pounds of raw material

per hour, SCO2's technology enables powerful high-volume solvent free extractions for 24-hour industrial production.

