
Bluegrass AgTech Development Corporation

Challenge Grant Awardee Overviews – Round 2

SANTERRE

INTERNATIONAL

Santerre International

Santerre International is tackling one of Kentucky's most persistent environmental challenges, the spread of invasive Asian carp, by turning the problem into a resource. The company is developing a zero-waste process that converts carp into two products for use in certified organic production: a liquid hydrolysate and a solid compost substitute. These products address a critical barrier for Kentucky's organic farms, which often lack affordable, consistent access to quality soil amendments. By making locally produced inputs available, Santerre enables farmers to expand organic acreage, increase yields, and diversify markets.

The company's work also strengthens rural livelihoods. Creating a commercial demand for carp provides income for fishing crews and helps restore native fish populations, supporting healthier waterways that are critical for Kentucky's agriculture and communities. In doing so, Santerre connects farmers, fishermen, and consumers in a circular model that improves profitability, builds resilience, and sets an example of how AgTech can drive both environmental restoration and agricultural growth.

- Headquarters: Paducah, KY
- Website: www.santerreinternational.com
- President/CEO: Mark Anderson, Founder & CEO
- Contact: mark.anderson@santerreinternational.com | (270) 559-3969
- Ecosystem Impact: Expands Kentucky's organic production, creates new rural jobs, strengthens farm profitability, and demonstrates how AgTech can align agriculture with environmental problem-solving.
- Other information: Selected for Sprocket's Market Fit Lab; leveraging grants to advance R&D and commercialization.



ORB Technologies

ORB Technologies is reimagining construction with its Biomie™ bio-composite block, a multifunctional building material made from agricultural residues like small grain straw and native switchgrass. These materials replace traditional high-carbon construction inputs while providing new income streams for Kentucky farmers who supply biomass. ORB's process pays farmers for crop residues and underutilized land uses, turning what was once a low-value byproduct into a new market opportunity.

The technology also simplifies ultra-energy-efficient construction by combining framing, sheathing, and insulation into one fire-resistant block. This lowers costs for builders, reduces errors in construction, and creates healthier living spaces that can safely ride through power outages without frozen pipes or dangerous indoor temperatures. For Kentucky agriculture, it opens the door to scaling regenerative farming practices and diversifying farm revenue, while for the broader ecosystem, it demonstrates how AgTech can bridge food, energy, housing, and environmental resilience. ORB is positioning Kentucky as a leader in bio-based construction innovation, with potential applications far beyond the state.

- Headquarters: Lexington, KY
- Website: <https://orb-technologies.com>
- President/CEO: Ginger Watkins, Founder & President
- Contact: ginger@orb-technologies.com | (502) 320-9373
- Ecosystem Impact: Builds new markets for farm residues, promotes regenerative land use, and positions Kentucky as a hub for sustainable materials that connect agriculture with global construction needs.
- Other information: Recipient of USDA SBIR Phase I grant; partnership with University of Kentucky Forage Extension; collaboration with experts from Oak Ridge National Lab and UofL Structural Lab; 2025 cohort of Spark Cleantech Accelerator; 2024 U.S. DOE IMPEL Innovator; and recognition by XPRIZE as a carbon removal system with gigatonne-scale potential



KANBOL™

CORN CONTAINERS

Kanbol, Inc.

Kanbol, Inc. is advancing Kentucky's agricultural circular economy by transforming corn stover, a byproduct of bourbon production and row-crop farming, into compostable food containers.

Using a patented pulping technology, Kanbol creates sustainable alternatives to plastic packaging while opening a new value stream for farmers. By harvesting excess stover responsibly, the company both preserves soil health and generates additional income for producers without requiring new land or changes in cropping practices.

Kanbol is already supplying products to Aramark campus dining operations and is working to expand into fast-casual restaurant chains. This model strengthens Kentucky's farm-to-market connections, ties agricultural heritage directly to modern sustainability needs, and scales a homegrown solution into a national market. Beyond packaging, Kanbol's innovation reinforces the state's reputation for linking agriculture, manufacturing, and sustainability in ways that grow farmer profitability and reduce environmental impact.

- Headquarters: Auburn, KY
- Website: www.kanbolinc.com
- President/CEO: Miles Leach, CEO
- Contact: milesleach@kanbolinc.com | (415) 676-7110
- Ecosystem Impact: Adds value to Kentucky's corn economy, reduces plastic waste, and positions the state as a leader in agricultural-based manufacturing and sustainability solutions.
- Other information: Holds two issued patents; currently supplying Aramark university dining locations; scaling production to target national fast-casual restaurant chains

