

## Korea's Farmers Lab Ltd. introduces new horizontally revolving vertical farming system to solve labor crisis

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Across the world, the farming population is aging, and fewer people are willing to work outdoors under harsh weather or uncertain income conditions. Even in controlled-environment agriculture, labor remains the greatest challenge. Despite technological progress, vertical farming still relies heavily on human work and traditional fixed-rack systems often require: climbing up and down racks, stretching to reach upper trays, moving constantly between aisles. As labor becomes scarce, vertical farming must evolve into systems that support human operators, not burden them.

BK Conveyor Culture (BKCC), developed by Farmers Lab Ltd. (Korea), redefines vertical farming through its horizontally revolving tray system. Instead of workers moving, the trays rotate to the worker, allowing: planting, watering, harvesting, cleaning all to be done while standing or sitting comfortably at one spot.

This human-centered approach reduces physical strain and ensures safe, stable working conditions for farmers of all ages. BKCC achieves up to 70% labor savings and 80% water savings compared to traditional fixed-rack vertical farms, while improving operational simplicity and crop uniformity.

BKCC operates within a fully controlled environment using hydroponic precise irrigation, efficient LED spectrum management, clean, soilless production, user-friendly IT monitoring with optional AI-based growth analysis.

This makes it ideal for growing microgreens, leafy vegetables, sprouts, animal fodder, and virus-free nursery plants for greenhouses or open-field transplanting. As many fixed-rack vertical farms struggle with operational complexity and rising costs, BKCC offers a simpler, safer, and more sustainable alternative designed for real-world farm conditions.

BKCC has been successfully tested and operated in Korea and Singapore through collaborative R&D projects, demonstrating stable performance and reliable productivity in real environments. With these results, new installations are now being prepared in Australia and other global markets, marking the beginning of BKCC's international expansion.

Pride for Farmers, Future for Youth BKCC was created to support farmers by giving them strength, comfort, and renewed pride in their work. Older farmers can continue producing without physical hardship, while younger generations can enter agriculture through clean, high-tech, modern farming systems.