

Agri-genomics startup Singrow opens indoor R&D farm in Singapore

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Singapore's Agri-genomics startup Singrow has opened a new indoor farm in Singapore to serve as its main R&D hub. The R&D hub will develop novel crop varieties using Singrow's proprietary genomics technology.

Singrow signed agreements with its new franchise farm partners: TreeGrow in Malaysia and PREINO Co. in Thailand. These collaborations will make Singrow's technology and strawberries available to more farmers, particularly in regions heavily impacted by climate change. The company's crop list will expand as well, with Shengjie highlighting rice, corn, sustainable palm oil, and other staple vegetables.

Singrow's holistic approach to controlled environment agriculture handles every step of the grow process from seed breeding to harvesting. In contrast, most conventional indoor farms use either off-the-shelf technology or build software and hardware that only services a part of the operation, such as seeding or harvesting.

Singrow's approach enables the company to breed crops suited to certain environments (e.g. drought) and automate much of the growing and harvesting tasks later on in the process. The company made headlines earlier this year for its "climate-resilient strawberries" designed to be grown in tropical climates such as Singapore.

The Singapore-based company will also expand to Malaysia and Thailand via franchise farm partnerships with TreeGrow Sdn Bhd and PREINO Co, respectively. The partnerships will expand availability of Singrow's technology as well as its climate-

resilient strawberries to climate-impacted regions.

Singrow is tackling the challenges of growing food in an age of limited resources and natural disasters (drought, fire, etc.) brought on by climate change. This is especially true in Singapore, where just 1% of the city-state's land mass is available for farming, and bolstering food security is a major part of the national agenda.

Shengjie said that with the new R&D hub, Singrow will be able to apply its agri-genomics technology — which leverages genome sequencing and annotation, and gene adaptation and application — to other crops. Farmers around the world would then be able to produce more climate-resilient crops, thus strengthening food security and their own livelihoods.

“Our proprietary genomics-based farming protocols further allow for these crops to be grown more efficiently. In fact, our indoor farming technology is at least 40% more energy-efficient than other indoor farms, allowing us to produce crops in a more sustainable and cost-effective manner,” said Singrow founder, CEO and chief scientist Dr. Bao Shengjie.

“Our ultimate goal is to bring our technology and crop varieties to more farmers and communities worldwide, particularly in regions where agricultural challenges have been exacerbated by climate changes and natural disasters,” he added.

Singrow will also expand into China — a leading strawberry producer — in the near future. The company joined a key tech hub, the China-Singapore Smart Park in Guangzhou, this year and plans to have a seedling production facility at Guangzhou Knowledge City by 2024.