

Senate resolution would push 'vertical farming'

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Hawaii produces less than 15 percent of the food it consumes, and some lawmakers want to help change that by studying the feasibility of "vertical farming."

State Sen. Brickwood Galuteria on March 10 introduced Senate Concurrent Resolution 151, which cites Singapore as an example of a community that has implemented vertical agriculture to cope with land scarcity

and urban expansion.

The resolution suggests Hawaii should experiment with "fresh ideas" relating to land utilization and stewardship, along with ways to balance development with food production.

Vertical farming is an emerging type of agriculture that utilizes buildings, such as warehouses and skyscrapers, to grow food. A controllable climate, fewer pests and efficient use of space are among the advantages of this type of agricul-

ture, while rental fees and utility costs are among the disadvantages.

The concept of vertical farming has already taken off at one location in Kakaako. MetroGrow Hawaii cultivates vegetables in controlled climates, utilizing LED lights, air conditioning and aeroponics. The high cost of energy and steep rent are MetroGrow's primary expenses, according to testimony submitted by the state Department of Agriculture.

"This is a part of a greater initiative," Galuteria said. "Because the urban core has a very limited amount of areas to do any kind of farming, you got to go up just like everything else. This is a perfect way to address that."

In his testimony, Kendrick Farm, a member of the Kalihi-Palama Neighborhood Board, wrote, "There is an opportunity cost whenever land is developed for housing in lieu of farming or

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Kerry Kakazu, president of MetroGrow Hawaii, tended to seedlings Sunday at his vertical farm in a warehouse in Kakaako.

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other type of agricultural pursuits. This has been a matter of contention and a delicate balancing act that (the) state must do every time there is a permit for land development."

Farm also cited the job-boosting potential of vertical farming operations, particularly for young people.

"The average age, last I checked, was close to about 55 for an agricultural worker," Farm said in an interview March 24. "We need to reduce that down by doing things like this."

Galuteria (D, Kakaako-McCully-Waikiki) likewise highlighted the potential for greater youth involvement in

agriculture. "We want to get young people involved with food sustainability ... whatever way they can farm to feed themselves and to feed their neighbors," he said.

DURING a speech last month in Singapore, Koh Poh Koon, a member of the nation's Ministry of National Development, said, "Farming will no longer just be about horticulture or aquaculture. It will no longer just be about toiling in the sun doing manual labor, but also about engineering, info-comm technology, entrepreneurship and R&D. The interactions between these areas will generate ideas to transform the farming industry."

In testimony March 24, the state Department of Agriculture said Singapore has

better reason to pursue vertical farming than Hawaii. Singapore is populated by 5 million people within 274 square miles, while Oahu is populated by about a million people within 597 square miles, according to the testimony.

The Hawaii Office of Planning wrote that research regarding the efficacy of vertical farming may be premature if undertaken right now: "As technology progresses and operations becomes more energy-efficient locally, such a study may be warranted in the future."

The Senate Committee on Agriculture and the Environment on March 24 voted 4-0, with one abstention, to approve the measure, and on Wednesday it was referred to the Ways and Means Committee.