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# A BILL FOR AN ACT

RELATING TO AGRICULTURE.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1           SECTION 1. The legislature finds that Hawaii is one of the  
2 most geographically isolated locations in the world. Hawaii is  
3 inordinately susceptible to price fluctuations for food and  
4 goods because prices of both are affected by the price of oil  
5 needed to fuel their importation to the State. Further, almost  
6 all food items consumed in-state must be shipped to Hawaii to  
7 support the needs of the State's population.

8           The legislature further finds that large conventional  
9 farming operations use pesticides that damage the State's  
10 fragile ecosystem. The pesticides enter the water and land  
11 resources of the State and find their way into the ocean. The  
12 State's food security is also compromised by other factors, such  
13 as the rat lungworm, which is a disease-causing nematode that  
14 may result in long-term disability and consequently diminish an  
15 affected person's ability to earn a living.

16           The legislature additionally finds that the State must  
17 explore more effective and environmentally responsible ways to



1 increase food production to feed its residents. Agricultural  
2 technology, or ag-tech, should be at the forefront of the effort  
3 to revitalize the agricultural sector of the State and develop  
4 that industry's potential to be a major contributor to state  
5 revenue.

6 The legislature also finds that vertical farming, the use  
7 of indoor farming techniques in a closed and controlled  
8 environment to grow produce in vertically stacked layers,  
9 reduces the need for space, pesticides, and water to grow food.

10 AeroFarms in New Jersey, with its sixty-nine thousand  
11 square foot facility, has demonstrated the potential of vertical  
12 farming to grow healthy fruits and vegetables and to spur  
13 economic activity at the same time. According to Cornell  
14 University and the University of California, "Every year,  
15 AeroFarms has the potential to produce up to thirty harvests and  
16 yield two million pounds of greens. In comparison, a  
17 traditional outdoor farm in New York state produces about three  
18 lettuce harvests in a good year."

19 Hawaii must entertain alternatives to its current  
20 agricultural operations by bringing in new ideas for the use of  
21 land and practicing responsible land stewardship. New



1 agricultural production methods, such as vertical farming, have  
2 enormous potential to increase crop yields in limited land  
3 space. Several other developed countries, such as Singapore,  
4 have successfully implemented vertical farming operations that  
5 balance urban development and food production.

6 The purpose of this Act is to:

7 (1) Require the department of agriculture to conduct a  
8 study on the feasibility of authorizing the department  
9 to establish and designate ag-tech zones within the  
10 city and county of Honolulu, specifically the Kalihi-  
11 Palama, Kaka'ako, Moanalua, and Waianae coast areas;  
12 and

13 (2) Appropriate funds for the feasibility study.

14 SECTION 2. The department of agriculture shall conduct a  
15 study on the feasibility of authorizing the department to  
16 establish and designate ag-tech zones within the city and county  
17 of Honolulu, specifically the Kalihi-Palama, Kaka'ako, Moanalua,  
18 and Waianae coast areas, wherein technological innovation in  
19 agriculture will be used to increase food production in a more  
20 effective and environmentally responsible way that also  
21 contributes to state revenues.



1 SECTION 3. In conducting the study on the feasibility of  
2 ag-tech zones, the department of agriculture shall be guided by  
3 the following goals and objectives:

4 (1) Protect and expand Hawaii's agricultural production  
5 for in-state consumption and export;

6 (2) Create a new industry that recognizes and responds to  
7 the challenges of the future of food production in the  
8 context of population growth;

9 (3) Recruit and train Hawaii's youth for the new  
10 agricultural economy; and

11 (4) Promote farming techniques that reduce the use of  
12 water and pesticides.

13 SECTION 4. The feasibility study shall include:

14 (1) Researching into ag-tech zoning currently used in  
15 other jurisdictions and best practices relating  
16 thereto;

17 (2) Identification of areas within the city and county of  
18 Honolulu suitable for ag-tech zoning;

19 (3) Determination of funding and staffing requirements for  
20 a statewide ag-tech program and any other  
21 implementation concerns;



1 (4) Recommendations for necessary legislation at the state  
2 and county level to implement a statewide ag-tech  
3 program; and

4 (5) Production of an economic impact report based upon the  
5 successful implementation of a statewide ag-tech  
6 program.

7 SECTION 5. In conducting the feasibility study required by  
8 this Act, the department of agriculture shall request, as  
9 appropriate, the assistance of the department of land and  
10 natural resources; University of Hawaii; department of business,  
11 economic development, and tourism; Hawaii community development  
12 authority; and city and county of Honolulu. Those agencies  
13 shall cooperate and provide necessary resources as requested by  
14 the department of agriculture.

15 SECTION 6. The department of agriculture shall submit its  
16 feasibility study, as required by this Act, together with its  
17 findings and recommendations, including any proposed  
18 legislation, to the legislature no later than twenty days prior  
19 to the convening of the regular session of 2020.

20 SECTION 7. There is appropriated out of the general  
21 revenues of the State of Hawaii the sum of \$50,000 or so much

1 thereof as may be necessary for fiscal year 2019-2020 and the  
2 same sum or so much thereof as may be necessary for fiscal year  
3 2020-2021 for the department of agriculture to conduct a  
4 feasibility study as required by this Act.

5 The sums appropriated shall be expended by the department  
6 of agriculture for the purposes of this Act.

7 SECTION 8. This Act shall take effect on July 1, 2019.

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**Report Title:**

Department of Agriculture; Feasibility Study; Ag-tech Zones;  
Appropriation

**Description:**

Requires the department of agriculture to conduct a feasibility study on the establishment of ag-tech zones within the city and county of Honolulu. Appropriates funds to conduct the feasibility study. (SD1)

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

