

MAR 07 2025

SENATE RESOLUTION

REQUESTING THE DEPARTMENT OF AGRICULTURE TO ESTABLISH AND
ADMINISTER A MICROBIAL ALGAE SOIL PRODUCTS PILOT PROGRAM.

1 WHEREAS, soil health is a critical element of sustainable
2 crop production, as soil can directly influence biological and
3 microbial activity that supports agricultural systems; and
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5 WHEREAS, in the agricultural sector, soil health and
6 quality can be negatively impacted by certain practices, such as
7 the excessive use of chemical fertilizers that deplete essential
8 microbiological nutrients. Soil degradation can be further
9 exacerbated by soil compaction, poor aggregation, high pathogen
10 pressure, and heavy metal contamination, which can lead to
11 reduced crop yields, increased disease susceptibility, and
12 greater reliance on intensive agricultural practices that can
13 further harm the environment; and
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15 WHEREAS, to prevent soil degradation, algae-based
16 fertilizers have been proven to protect soil while replenishing
17 key nutrients needed for agricultural activities. Microbial
18 algae-based fertilizers are rich in organic compounds, nitrogen,
19 phosphorous, potassium, and trace elements that improve soil
20 aeration, increase water retention, suppress harmful pathogens,
21 and boost overall agricultural fertility; and
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23 WHEREAS, emerging research has demonstrated that specific
24 types of microalgae and seaweeds offer promising solutions to
25 improve soil health as a stimulant for nutrient cycling.
26 Additionally, microbial algae products do not contain synthetic
27 chemicals, which can harm both natural physical environments and
28 critical water resources; and
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30 WHEREAS, the incorporation of microbial algae-based
31 fertilizers is a sustainable and cost-effective solution for the
32 State's agricultural industry; and
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34 WHEREAS, the agricultural industry remains a critical state
35 priority. As the State seeks to increase its food resiliency
36 and self-sufficiency while promoting local produce and



1 agricultural products, ensuring the overall health of soil is
2 imperative to achieve this goal; and

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4 WHEREAS, as the agricultural industry continues to innovate
5 methods suited for the State's unique natural environment,
6 recent developments, including microbial algae soil products,
7 can provide low-risk opportunities to test new practices; and

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9 WHEREAS, by testing alternative agricultural methods in
10 farms statewide, the agricultural industry can continue to grow
11 while ensuring the safety of local produce and products for
12 consumption; now, therefore,

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14 BE IT RESOLVED by the Senate of the Thirty-third
15 Legislature of the State of Hawaii, Regular Session of 2025,
16 that the Department of Agriculture is requested to establish and
17 administer a Microbial Algae Soil Products Pilot Program that
18 introduces microbial algae on agricultural lands in the State to
19 address agricultural soil health while improving nutrient
20 cycling, reducing fertilizer dependency, and enhancing overall
21 soil health; and

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23 BE IT FURTHER RESOLVED that farmers are requested to be
24 eligible for participation in the Microbial Algae Soil Products
25 Pilot Program if the farmer:

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27 (1) Operates a small to medium-sized farm of not less than
28 ten acres and not more than one hundred acres;
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30 (2) Has stable or moderate production rates among all
31 crops produced on the farm;
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33 (3) Experiences yield reduction, poor soil health or
34 nutrient management, or excessive fertilizer use that
35 impacts the overall quality of soil;
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37 (4) Produces high-value crops or a diverse variety of
38 crops; and
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40 (5) Operates an organic farm; and
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S.R. NO. 71

1 BE IT FURTHER RESOLVED that the Department of Agriculture
 2 may establish additional criteria for eligibility to participate
 3 in the Microbial Algae Soil Products Pilot Program; and

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 5 BE IT FURTHER RESOLVED that the Department of Agriculture
 6 is requested to collaborate with the College of Tropical
 7 Agriculture and Human Resiliency of the University of Hawaii and
 8 laboratories at the University of Hawaii engaged in the study of
 9 soil sciences; and

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 11 BE IT FURTHER RESOLVED that the Department of Agriculture
 12 may collaborate with other departments, laboratories, or units
 13 at the University of Hawaii whose expertise is relevant to the
 14 Microbial Algae Soil Products Pilot Program; and

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 16 BE IT FURTHER RESOLVED that the Department of Agriculture
 17 is requested to submit a report of its findings and
 18 recommendations for the long-term application of microbial algae
 19 soil products to the State's agricultural sector, including any
 20 proposed legislation, to the Legislature no later than twenty
 21 days prior to the convening of the Regular Sessions of 2026 and
 22 2027; and

23
 24 BE IT FURTHER RESOLVED that certified copies of this
 25 Resolution be transmitted to the Chairperson of the Board of
 26 Agriculture and Dean of the College of Tropical Agriculture and
 27 Human Resiliency of the University of Hawaii.

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 30 OFFERED BY: *[Handwritten Signature]*

