

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE AND BIOSECURITY
Honolulu, Hawaii

December 11, 2025

Report of the Hawaii Department of Agriculture and Biosecurity
In Response to Senate Concurrent Resolution 88
Requesting the Department of Agriculture and Biosecurity to Establish and Administer a
Microbial Algae Soil Products Pilot Program.

The 2025 State Legislature adopted Senate Concurrent Resolution No. 88 that requests the Hawaii Department of Agriculture and Biosecurity (Department) to establish and administer a two-year Microbial Algae Soil Products Pilot Program (Pilot Program). The purpose of the Pilot Program is to introduce "...microbial algae on agricultural lands in the State to address agricultural soil health while improving nutrient cycling, reducing fertilizer dependency, and enhancing overall soil health".

The Department is requested to collaborate with the College of Tropical Agriculture and Human Resilience (CTAHR) and with other departments and programs at the University of Hawaii with expertise in soil sciences and other fields relevant to the Pilot Program.

At the core of the Pilot Program is the participation of eligible farmers who will apply microbial algae soil products on their farms with the outcomes sought being improved soil health and crop productivity. Farmers seeking to participate in the Pilot Program must meet each of the following five eligibility criteria:

- (1) Operates a small to medium-sized farm of not less than ten acres and not more than one hundred acres;
- (2) Has stable or moderate production rates among all crops produced on the farm;
- (3) Experiences yield reduction, poor soil health or nutrient management, or excessive fertilizer use that impacts the overall quality of soil;
- (4) Produces high-value crops or a diverse variety of crops; **and**
- (5) Operates an organic farm.

The Department may establish additional eligibility criteria for farmers desiring to participate in the Pilot Program.

The Department is to submit a report of its findings and recommendations for the long-term application of microbial algae soil products to the State's agricultural sector, including any proposed legislation, to the Legislature no later than twenty days prior to the convening of the Regular Sessions of 2026 and 2027.

In December 2025, Chairperson Sharon Hurd of the Department and Dr. Parwinder Grewal, Dean of CTAHR and their respective staff met to determine what would be necessary to achieve the outcomes requested in SCR88. The Department and CTAHR

agreed that undertaking the Pilot Program would require the establishment of baseline data on each participating farm's existing soil conditions and the means to measure the characteristics that would indicate improved soil health and crop productivity. Also necessary would be a dedicated group of professionals to establish and administer the two-year Pilot Program.

Further, farmer participants will require a sufficient supply of microbial algae product. More specifically, the costs of acquiring a sufficient quantity and quality of microbial algae soil product, its application, and monitoring of results by the qualified agricultural operators during the two-year Pilot Program needs to be addressed, along with the costs to establish the aforementioned baseline data for each farm's existing soil conditions.

FINDINGS, RECOMMENDATIONS AND PROPOSED LEGISLATION

Both the Department and CTAHR question whether the true utility of applying microbial algae soil products to Hawaii farmlands can be determined without sufficient resources to undertake the activities we envision as necessary to do a proper evaluation of efficacy. Most importantly, if the application of microbial algae soil products does not result in increasing crop yields and income from sales in excess of the cost of purchasing and applying microbial soil products to the satisfaction of agricultural operators, then the utility of what is proposed in Senate Concurrent Resolution No. 88 would be substantially compromised.

Both the Department and CTAHR recommend that a bill be introduced to the 2026 State Legislature that appropriates funding in amounts sufficient to undertake the activities envisioned as necessary to do a proper evaluation of efficacy of the proposed two-year Microbial Algae Soil Products Pilot Program.