
A BILL FOR AN ACT

RELATING TO NUTRIENT CYCLING.

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

1 SECTION 1. The legislature finds that nutrient cycling
2 fosters agricultural production by building soil health and
3 fertility. Without nutrient cycling, nutrients flow from
4 farmland into aquifers and shorelines, depleting nutrients in
5 the soil and forcing farmers to use commercial fertilizers,
6 which require fossil fuels to produce, decrease soil health and
7 species diversity, increase pesticide use, and reduce the
8 nutrient density of food. Nutrient cycling puts end products
9 back into the land-based food chain instead of generating waste
10 or causing pollution as with food waste.

11 The legislature further finds that nutrient cycling
12 benefits local agriculture by lowering production costs,
13 increasing yields, and leaving the soil in revitalized
14 condition. Nutrient cycling also reduces waste streams.
15 Research conducted at nutrient cycling centers focuses on a
16 whole system of agriculture, identifying the optimum overall



1 solution instead of one that just produces the highest crop
2 yield.

3 The legislature further finds that the establishment of a
4 regional nutrient cycling pilot program on Maui supports
5 Hawaii's transition away from a plantation agriculture economy
6 to a diversified agriculture model of farming. This is
7 especially important on Maui with the closure of the Hawaiian
8 Commercial & Sugar Company plantation and the end of the sugar
9 cane era. Maui county agriculture helps to feed the community,
10 fuel the economy, and provide many jobs on Maui. With the
11 closure of the Hawaiian Commercial & Sugar Company plantation, a
12 regional nutrient cycling pilot program on Maui will continue to
13 support farming jobs. Further, the pilot program will generate
14 soil fertility amendments that in turn will lower farm
15 production costs, increase food security, and mitigate climate
16 change by sequestering carbon into the soil and reducing methane
17 emissions from Maui's landfill.

18 The legislature further finds that a regional nutrient
19 cycling pilot program on Maui would promote environmental,
20 economic, and social benefits for the State along with food and
21 energy security for Hawaii residents. Food waste on Maui is



1 buried in landfills, creating voluminous methane gas that is
2 emitted into the atmosphere. A feasible alternative is to
3 process food waste and other organic waste through a nutrient
4 cycling center. The end result is that the waste goes back into
5 the farming system as a whole, which spares landfills. Waste is
6 processed into low-cost fertilizer to supply farmers who can use
7 the fertilizer for crops, thereby fostering food security,
8 decreasing climate change, and improving air quality.
9 Furthermore, regional nutrient cycling minimizes the interisland
10 transfer of waste streams, reducing the likelihood of
11 transporting invasive species.

12 The legislature further finds that a regional nutrient
13 cycling pilot program on Maui would assist in the compilation of
14 scientific evidence from public and private sources, including
15 the scientific community, industry, conservation organizations,
16 and federal, state, and county agencies to identify the net
17 environmental impacts that agriculture creates. The pilot
18 program would serve as a repository of this information and
19 provide it as needed to federal, state, and local governments.



1 The purpose of this Act is to establish and make an
2 appropriation for a regional nutrient cycling pilot program on
3 Maui and require reporting on the efficacy of the pilot project.

4 SECTION 2. There is established a regional nutrient
5 cycling pilot program on the island of Maui, to be administered
6 by the department of agriculture. The board of agriculture
7 shall establish a panel, consisting of three members with
8 expertise in agriculture and knowledge of nutrient cycling, to
9 advise the department of agriculture regarding the pilot
10 program. The regional nutrient cycling pilot program:

- 11 (1) May determine priorities of the program and give
12 priority to projects that are located in and benefit
13 disadvantaged communities;
14 (2) Shall strive to show promise of being replicated in
15 other parts of the State; and
16 (3) Shall provide environmental and agronomic co-benefits,
17 such as improved air and water quality, improved crop
18 yield, lowered production costs, and soil erosion
19 reduction.

20 SECTION 3. The department of agriculture shall report to
21 the legislature no later than twenty days prior to the convening



1 of the regular session of 2020 on the operational and economic
2 efficacy of the regional nutrient cycling pilot program on Maui
3 established pursuant to this Act.

4 SECTION 4. There is appropriated out of the general
5 revenues of the State of Hawaii the sum of \$2,000,000 or so much
6 thereof as may be necessary for fiscal year 2018-2019 for the
7 establishment of a regional nutrient cycling pilot program on
8 Maui, including costs for program operations, equipment,
9 regulatory compliance, land development and leasing,
10 administration, personnel, and contaminant testing.

11 The sum appropriated shall be expended by the department of
12 agriculture for the purposes of this Act.

13 SECTION 5. This Act shall take effect on January 28, 2045.



Report Title:

Agriculture; Nutrient Cycling Center Pilot Project;
Appropriation

Description:

Establishes and appropriates funds for a Regional Nutrient
Cycling Pilot Program on Maui. Requires DOA to report on the
efficacy of the pilot program. (HB2102 HD1)

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not legislation or evidence of legislative intent.*

