

JAN 23 2015

---

# A BILL FOR AN ACT

RELATING TO INDUSTRIAL HEMP.

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

1       SECTION 1. Act 56, Session Laws of Hawaii 2014, is amended  
2 by amending sections 1 to 4 to read as follows:

3       "SECTION 1. The legislature finds that Section 7606 of the  
4 United States Agricultural Act of 2014 authorizes institutions  
5 of higher education and state departments of agriculture to  
6 conduct industrial hemp research. The legislature also finds  
7 that industrial hemp can be grown or cultivated for research  
8 purposes.

9       The legislature further finds that the State will benefit  
10 from research for phytoremediation, which is the  
11 environmentally-friendly science of using plants and trees to  
12 remove toxins in the soil, such as metals, pesticides, solvents,  
13 explosives, and crude oil. These toxins can be reduced by  
14 planting specific plants and trees, called hyperaccumulators, in  
15 polluted areas. Specifically, these plants and trees draw in  
16 the toxins, along with beneficial nutrients, through their roots  
17 as nourishment and concentrate them in their stems, shoots, and



1 leaves, which can then be harvested and disposed of safely. The  
2 nutrient uptake process leaves a clean, balanced, and nutrient  
3 rich soil, which can then be safely used for agriculture or  
4 improving conservation habitats.

5 The legislature additionally finds that hemp is a superior  
6 phytoremediator because it grows quickly and can extract toxins  
7 without the need to remove any of the contaminated topsoil.  
8 Other factors that make hemp a superior phytoremediator are its  
9 ability to grow unaffected by the toxins it accumulates, its  
10 fast rate of absorption, and its ability to bind compound  
11 contaminants from the air and the soil. A factor that makes the  
12 State a particularly compelling candidate for hemp-based  
13 phytoremediation is that the State's extensive agricultural  
14 operations in the past have left toxins in vast tracts of land.  
15 Phytoremediation will remove those toxins.

16 The legislature also finds that industrial hemp is an  
17 environmentally friendly and efficient feedstock for biofuel.  
18 Biodiesel plants already in existence in the State are capable  
19 of meeting eight per cent of the State's biodiesel needs for  
20 ground transportation. These biodiesel plants could increase



1 their efficiency by utilizing industrial hemp as a feedstock,  
2 thus reducing the State's reliance on imported fuel.

3 The legislature also finds that industrial hemp has great  
4 potential as a component of manufacturing products, such as hemp  
5 oil for human and livestock consumption and hemp fiber for  
6 clothing and building materials.

7 The legislature recognizes that tri-cropping industrial  
8 hemp, such as rotating hemp crops on the same location between  
9 hemp cultivars for seed oil production, fiber products, and  
10 biofuel, maximizes the potential for hemp production.

11 The legislature also finds that different hemp cultivars  
12 are appropriate for different end uses, and each cultivar is  
13 best grown in a location specific for that cultivar.

14 The purpose of this Act is to authorize an industrial hemp  
15 research program in each county, established by the dean of the  
16 college of tropical agriculture and human resources at the  
17 University of Hawaii at Manoa [~~to establish a two-year~~  
18 ~~industrial hemp remediation and biofuel crop research program.]~~  
19 working in conjunction with the chairperson of the board of  
20 agriculture.



1       SECTION 2. (a) The dean of the college of tropical  
2   agriculture and human resources at the University of Hawaii,  
3   working in conjunction with the chairperson of the board of  
4   agriculture, may establish a two-year industrial hemp  
5   ~~[remediation and biofuel crop]~~ research program in each county  
6   that shall include the authority to grow or cultivate industrial  
7   hemp in accordance with the requirements established under  
8   section 7606 of the federal Agricultural Act of 2014 (Public Law  
9   113-79) ~~[, provided that the]~~. The authority to grow or  
10   cultivate industrial hemp under this Act shall only apply to  
11   industrial hemp grown or cultivated for the research program  
12   established under this Act. ~~[Through the research program, the~~  
13   ~~dean may determine how soils and water may be made more pristine~~  
14   ~~and healthy by phytoremediation, removal of contaminants, and~~  
15   ~~rejuvenation through the growth of industrial hemp, as well as~~  
16   ~~the viability of industrial hemp as a biofuel feedstock.]~~

17       The research program shall use four test sites, one in each  
18   county, to grow and cultivate industrial hemp. The dean of the  
19   college of tropical agriculture and human resources at the  
20   University of Hawaii, working in conjunction with the  
21   chairperson of the board of agriculture, shall determine which



1 test shall be conducted in each county. Funding for the program  
2 at each test site may be provided by a federal, state, county,  
3 or private entity, solely or collaboratively, as determined by  
4 the dean and the chairperson.

5 The testing goal of the research program in each county may  
6 be to determine either:

7 (1) How soils and water may be made more pristine and  
8 healthy by phytoremediation, removal of contaminants,  
9 and rejuvenation through the growth of industrial  
10 hemp, as well as the viability of industrial hemp as a  
11 biofuel feedstock; or

12 (2) The best cultivars for, and the viability of,  
13 industrial hemp as oil and oil products for human and  
14 livestock consumption and as fiber for clothing and  
15 building materials. Tri-cropping methodology,  
16 sequentially growing crops for seed oil, fiber, and  
17 energy products, may be implemented for tests under  
18 this subsection.

19 (b) The dean and chairperson may work in collaboration  
20 with the United States Army Corps of Engineers, its affiliates,  
21 and the department of molecular biosciences and bioengineering



1 at the University of Hawaii John A. Burns school of medicine to  
2 determine the viability of industrial hemp as a biofuel  
3 feedstock[-] and for any other purpose set forth in this Act, as  
4 appropriate.

5       ~~[-(b)-]~~ (c) The department of agriculture shall certify that  
6 the seed stock to be used in the research program is for growing  
7 industrial hemp. The research program established under  
8 subsection (a) shall only use industrial hemp seed stock that is  
9 certified by the department of agriculture. If the seed stock  
10 cannot be verified by the department of agriculture as  
11 industrial hemp seed stock, the dean shall not commence the  
12 growing or cultivation of industrial hemp for the research  
13 program.

14       ~~[-(c)- The research program shall use only one test site to~~  
15 ~~grow and cultivate industrial hemp.]~~

16       (d) ~~[The dean of the college of tropical agriculture and~~  
17 ~~human resources at the University of Hawaii shall submit a]~~ The  
18 chairperson of the board of agriculture shall submit a final  
19 report[-] for each testing site concerning all tests performed  
20 under this section, including any proposed legislation, to the  
21 legislature no later than ~~[twenty days prior to the convening of~~



1 ~~the regular session of 2016 on the following:]~~ three years after  
2 the date testing is initiated at that site, or by July 1, 2018,  
3 whichever is earlier. For purposes of this subsection, testing  
4 is initiated on the day the first hemp seed is planted at a test  
5 site.

6 (e) For testing under subsection (a)(1), the report shall  
7 include the following:

- 8 (1) The rate of contamination uptake from soil and water;
- 9 (2) The mode of efficient uptake from soil and water;
- 10 (3) The rate of carbon fixation in the Calvin cycle;
- 11 (4) The locations in the roots, stems, leaves, and flowers  
12 of the plants at which contaminants are fixated;
- 13 (5) What contaminants are stabilized in the plants;
- 14 (6) What contaminants on the site need additional  
15 treatment in order to make the soil or water healthy  
16 and pristine;
- 17 (7) A baseline for plants cultivated in a clean soil;
- 18 (8) The viability of industrial hemp as a biofuel  
19 feedstock; and
- 20 (9) Any other data deemed important by the dean[-] and  
21 chairperson.



1        (f) For testing under subsection (a) (2), the report shall  
2 include the following:

- 3        (1) The cultivars chosen and reasons for selection;  
4        (2) Soil and water requirements, including salinity;  
5        (3) Germination period experienced for each cultivar;  
6        (4) Notable disease, pest, and weed management issues;  
7        (5) Nutrient and fertilizer requirements;  
8        (6) Yield potential for each cultivar during various  
9        growing periods, including seed oil yield, biomass  
10       yield, and potential for meal for either livestock or  
11       human consumption;  
12       (7) Harvesting recommendations and overall performance  
13       results; and  
14       (8) Any other data deemed important by the dean and  
15       chairperson.

16       ~~[(e)]~~ (g) For purposes of this Act, the term "industrial  
17 hemp" means the plant *Cannabis sativa L.* and any part of that  
18 plant, whether growing or not, with a delta-9  
19 tetrahydrocannabinol concentration of not more than 0.3 per cent  
20 on a dry weight basis. Any plant that meets the definition of  
21 "industrial hemp" under this Act shall not constitute





1 "marijuana" as defined in section 329-1 or 712-1240, Hawaii  
2 Revised Statutes.

3 SECTION 3. (a) No person shall be subject to any civil or  
4 criminal sanctions in this State for growing or possessing  
5 industrial hemp; provided that the person's growing or  
6 possession of industrial hemp is part of the person's  
7 participation in ~~[the]~~ a two-year industrial hemp ~~[remediation~~  
8 ~~and biofuel crop]~~ research program authorized by this Act and  
9 the person's participation is in full compliance with the  
10 requirements of the program.

11 (b) The department of agriculture shall test and monitor  
12 the plants growing on the test site to ensure that no marijuana  
13 is grown on the site. If marijuana is found to be growing or  
14 being cultivated on ~~[the]~~ a test site, then the research project  
15 on that site shall cease immediately.

16 SECTION 4. This Act shall take effect on July 1, 2014, and  
17 shall be repealed on July 1, ~~[2016-]~~ 2018."

18 SECTION 2. Statutory material to be repealed is bracketed  
19 and stricken. New statutory material is underscored.



1 SECTION 3. This Act shall take effect upon its approval.

2

INTRODUCED BY: *Anna Merando R.*

By Request



**Report Title:**

Maui County Package; Industrial Hemp

**Description:**

Amends Act 56, SLH 2014, regarding an industrial hemp research program, to expand the type of research to be conducted, require a test site in each county, and extend the repeal date to 7/1/2018.

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

