## A BILL FOR AN ACT

RELATING TO INDUSTRIAL HEMP.

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

- 1 SECTION 1. The legislature finds that Section 7606 of the 2 United States Agricultural Act of 2014 authorizes institutions
- 3 of higher education and state departments of agriculture to
- 4 conduct industrial hemp research. The legislature also finds
- 5 that industrial hemp can be grown or cultivated for research
- 6 purposes.
- 7 The legislature further finds that the State will benefit
- $oldsymbol{8}$  from research for phytoremediation, which is the
- 9 environmentally-friendly science of using plants and trees to
- 10 remove toxins in the soil, such as metals, pesticides, solvents,
- 11 explosives, and crude oil. These toxins can be reduced by
- 12 planting specific plants and trees, called hyper-accumulators,
- 13 in polluted areas. Specifically, these plants and trees draw in
- 14 the toxins, along with beneficial nutrients, through their roots
- 15 as nourishment and concentrate them in their stems, shoots, and
- 16 leaves, which can then be harvested and disposed of safely. The
- 17 nutrient uptake process leaves a clean, balanced, and nutrient

- 1 rich soil, which can then be safely used for agriculture or
- 2 improving conservation habitats.
- 3 The legislature additionally finds that hemp is a superior
- 4 phytoremediator because it grows quickly and can extract toxins
- 5 without the need to remove any of the contaminated topsoil.
- 6 Other factors that make hemp a superior phytoremediator are its
- 7 ability to grow unaffected by the toxins it accumulates, its
- 8 fast rate of absorption, and its ability to bind compound
- 9 contaminants from the air and the soil. A factor that makes the
- 10 State a particularly compelling candidate for hemp-based
- 11 phytoremediation is that the State's extensive agricultural
- 12 operations in the past have left toxins in vast tracts of land.
- 13 Phytoremediation will remove those toxins.
- 14 The legislature also finds that industrial hemp is an
- 15 environmentally friendly and efficient feedstock for biofuel.
- 16 Biodiesel plants already in existence in the State are capable
- 17 of meeting eight per cent of the State's biodiesel needs for
- 18 ground transportation. These biodiesel plants could increase
- 19 their efficiency by utilizing industrial hemp as a feedstock,
- 20 thus reducing the State's reliance on imported fuel.
- 21 The purpose of this Act is to authorize the dean of the
- 22 college of tropical agriculture and human resources at the

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- 1 University of Hawaii at Manoa to establish a two-year industrial
- 2 hemp remediation and biofuel crop research program.
- 3 SECTION 2. (a) The dean of the college of tropical
- 4 agriculture and human resources at the University of Hawaii may
- 5 establish a two-year industrial hemp remediation and biofuel
- 6 crop research program that shall include the authority to grow
- 7 or cultivate industrial hemp in accordance with the requirements
- 8 established under section 7606 of the federal Agricultural Act
- 9 of 2014 (Public Law 113-79), provided that the authority to grow
- 10 or cultivate industrial hemp under this Act shall only apply to
- 11 industrial hemp grown or cultivated for the research program
- 12 established under this section. Through the research program,
- 13 the dean may determine how soils and water may be made more
- 14 pristine and healthy by phytoremediation, removal of
- 15 contaminants, and rejuvenation through the growth of industrial
- 16 hemp, as well as the viability of industrial hemp as a biofuel
- 17 feedstock. The dean may work in collaboration with the United
- 18 States Army Corps of Engineers, its affiliates, and the
- 19 Department of Molecular Biosciences and Bioengineering at the
- 20 University of Hawaii John A. Burns school of medicine to
- 21 determine the viability of industrial hemp as a biofuel
- 22 feedstock.

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- 1 (b) The department of agriculture shall certify that the
- 2 seed stock to be used in the research program is for growing
- 3 industrial hemp. The research program established under
- 4 subsection (a) shall only use industrial hemp seed stock that is
- 5 certified by the department of agriculture. If the seed stock
- 6 cannot be verified by the department of agriculture as
- 7 industrial hemp seed stock, the dean shall not commence the
- 8 growing or cultivation of industrial hemp for the research
- 9 program.
- 10 (c) Each person involved in the research program
- 11 established under subsection (a) shall apply for and obtain
- 12 controlled substances registration from both the state narcotics
- 13 enforcement division of the department of public safety and the
- 14 federal Drug Enforcement Administration.
- 15 (d) The research program shall use only one test site to
- 16 grow and cultivate industrial hemp. The test site for the
- 17 research program shall comply with all regulations established
- 18 by the federal Drug Enforcement Administration and the state
- 19 narcotics enforcement division of the department of public
- 20 safety.
- 21 (e) The dean of the college of tropical agriculture and
- 22 human resources at the University of Hawaii may submit a final

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report, including any proposed legislation, to the legislature 1 no later than twenty days prior to the convening of the regular 2 3 session of 2016 on the following: The rate of contamination uptake from soil and water; 4 (1)The mode of efficient uptake from soil and water; 5 (2)6 (3)The rate of carbon fixation in the Calvin cycle; 7 The locations in the roots, stems, leaves, and flowers (4)8 of the plants at which contaminants are fixated; 9 (5)What contaminants are stabilized in the plants; What contaminants on the site need additional **10** (6) 11 treatment in order to make the soil or water healthy and pristine; 12 A baseline for plants cultivated in a clean soil; 13 (7) 14 (8) The viability of industrial hemp as a biofuel feedstock; and 15 16 (9)Any other data deemed important by the dean. For purposes of this Act, the term "industrial hemp" 17 (f) 18 means the plant Cannibis sativa L. and any part of that plant, whether growing or not, with a delta-9 tetrahydrocannabinol 19

concentration of not more than 0.3 per cent on a dry weight

basis. Any plant that meets the definition of "industrial hemp"

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- 1 under this Act shall not constitute "marijuana" as defined in
- 2 section 329-1 or 712-1240, Hawaii Revised Statutes.
- 3 SECTION 4. (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 possessing of industrial hemp is part of the individual's
- 7 participation in the two-year industrial hemp remediation and
- 8 biofuel crop research program and the person's participation is
- 9 in full compliance with the requirements of the program;
- 10 provided further that the immunity provided in this section
- 11 shall not apply to any person participating in the research
- 12 program established by this Act who is found to cultivate or
- 13 grow marijuana.
- 14 (b) The department of agriculture shall test and monitor
- 15 the plants growing on the test site to ensure that no marijuana
- 16 is grown on the site. If marijuana is found to be growing or
- 17 being cultivated on the test site, then the research project
- 18 shall cease immediately.
- 19 SECTION 5. There is appropriated out of the general
- 20 revenues of the State of Hawaii the sum of \$72,600 or so much
- 21 thereof as may be necessary for fiscal year 2014-2015 for the

- 1 establishment of the industrial hemp remediation and biofuel
- 2 crop research program.
- 3 The sum appropriated shall be expended by the University of
- 4 Hawaii for the purposes of this Act.
- 5 SECTION 6. This Act shall take effect on July 1, 2050, and
- 6 shall be repealed on July 1, 2016.

## Report Title:

Industrial Hemp; Two-year Industrial Hemp Remediation and Biofuel Crop Research Program; College of Tropical Agriculture and Human Resources; University of Hawaii

## Description:

Authorizes the dean of the college of tropical agriculture and human resources at the University of Hawaii at Manoa to establish a two-year industrial hemp remediation and biofuel research program. Permits the dean of the college of tropical agriculture and human resources to submit a final report to the legislature prior to the convening of the regular session of 2016. Defines industrial hemp. Repeals 07/01/2016. Appropriation. Effective 7/1/2050. (HD1)

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