## 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		
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 the two-year industrial hemp remediation and biofuel
- 6 crop research program. Through the research program, the dean
- 7 may determine how soils and water may be made more pristine and
- 8 healthy by phytoremediation, removal of contaminants, and
- 9 rejuvenation through the growth of industrial hemp, as well as
- 10 the viability of industrial hemp as a biofuel feedstock. The
- 11 dean may work in collaboration with the United States Army Corps
- 12 of Engineers, its affiliates, and the Department of Molecular
- 13 Biosciences and Bioengineering at the University of Hawaii John
- 14 A. Burns school of medicine to determine the viability of
- 15 industrial hemp as a biofuel feedstock.
- 16 (b) The dean of the college of tropical agriculture and
- 17 human resources at the University of Hawaii may submit a final
- 18 report, including any proposed legislation, to the legislature
- 19 no later than twenty days prior to the convening of the regular
- 20 session of 2016 on the following:
- 21 (1) The rate of contamination uptake from soil and water;
- 22 (2) The mode of efficient uptake from soil and water;

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1	(3)	The rate of carbon fixation in the Calvin cycle;
2	(4)	The locations in the roots, stems, leaves, and flowers
3		of the plants at which contaminants are fixated;
4	(5)	What contaminants are stabilized in the plants;
5	(6)	What contaminants on the site need additional
6		treatment in order to make the soil or water healthy
7		and pristine;
8	(7)	A baseline for plants cultivated in a clean soil;
9	(8)	The viability of industrial hemp as a biofuel
10		feedstock; and
11	(9)	Any other data deemed important by the dean.
12	SECT	ION 3. No person in the research program established
13	pursuant	to section 2 shall be subject to any civil or criminal
14	sanctions	in this State for growing or possessing industrial
15	hemp; pro	vided that the person's growing or possessing of
16	industria	l hemp is part of the individual's participation in the
17	two-year	industrial hemp remediation and biofuel crop research
18	program a	nd the person's participation is in full compliance
19	with the	requirements of the program.
20	SECT	ION 4. For purposes of this Act, the term "industrial
21	hemp" mea	ns the plant Cannibis sativa L. and any part of that
22	plant, wh	ether growing or not, with a delta-9

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- 1 tetrahydrocannabinol concentration of not more than 0.3 per cent
- 2 on a dry weight basis. Any plant in the research program
- 3 established pursuant to section 2 that meets the definition of
- 4 "industrial hemp" under this section shall not constitute
- 5 "marijuana" as defined in section 329-1 or 712-1240, Hawaii
- 6 Revised Statutes.
- 7 SECTION 5. This Act shall take effect on July 1, 2014, and
- 8 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. (HD1 Proposed)

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