### HOUSE OF REPRESENTATIVES TWENTY-SEVENTH LEGISLATURE, 2013 STATE OF HAWAII

H.B. NO. <sup>154</sup> H.D. 2 S.D. 2 Proposed

## 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, in polluted areas. 13 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

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rich soil, which can then be safely used for agriculture or
 improving conservation habitats.

3 The legislature also 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. Other factors that make hemp a superior phytoremediator are its 6 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. Phytoremediation will remove those toxins. 13

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



University of Hawaii at Manoa to establish a two-year industrial 1 hemp remediation and biofuel crop research program. 2 SECTION 2. (a) The dean of the college of tropical 3 4 agriculture and human resources at the University of Hawaii is authorized to establish the two-year industrial hemp remediation 5 6 and biofuel crop research program. Through the research program, the dean may determine how soils and water may be made 7 8 more pristine and healthy by phytoremediation, removal of 9 contaminants, and rejuvenation through the growth of industrial 10 hemp, as well as the viability of industrial hemp as a biofuel 11 feedstock. The dean may work in collaboration with the United States Army Corps of Engineers, its affiliates, and the 12 13 Department of Molecular Biosciences and Bioengineering at the University of Hawaii John A. Burns school of medicine to 14 15 determine the viability of industrial hemp as a biofuel 16 feedstock.

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(b) The dean of the college of tropical agriculture and human resources at the University of Hawaii may submit a final report, including any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2016 on the following:

(1) The rate of contamination uptake from soil and water; HB154 SD2 PROPOSED LRB 14-2085.doc Page 4

1 The mode of efficient uptake from soil and water; (2)The rate of carbon fixation in the Calvin cycle; 2 (3)The locations in the roots, stems, leaves, and flowers 3 (4) of the plants at which contaminants are fixated; 4 5 (5)What contaminants are stabilized in the plants; What contaminants on the site need additional 6 (6) treatment in order to make the soil or water healthy 7 8 and pristine; 9 A baseline for plants cultivated in a clean soil; (7)10 (8) The viability of industrial hemp as a biofuel 11 feedstock; and Any other data deemed important by the dean. 12 (9)13 SECTION 3. No person shall be subject to any civil or criminal sanctions in this State for growing or possessing 14 15 industrial hemp; provided that the person's growing or possessing of industrial hemp is part of the individual's 16 participation in the two-year industrial hemp remediation and 17 18 biofuel crop research program and the person's participation is 19 in full compliance with the requirements of the program. 20 SECTION 4. This Act shall take effect on July 1, 2014, and shall be repealed on July 1, 2016. 21

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### S.D. 2 Proposed

#### Report Title:

Two-year Industrial Hemp Remediation and Biofuel Crop Research Program

### 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. (SD2 Proposed)

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

