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 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.
- 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 is
- 5 authorized to establish the two-year industrial hemp remediation
- 6 and biofuel crop research program. Through the research
- 7 program, the dean may determine how soils and water may be made
- 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
- 12 States Army Corps of Engineers, its affiliates, and the
- 13 Department of Molecular Biosciences and Bioengineering at the
- 14 University of Hawaii John A. Burns school of medicine to
- 15 determine the viability of industrial hemp as a biofuel
- 16 feedstock.
- 17 (b) The dean of the college of tropical agriculture and
- 18 human resources at the University of Hawaii may submit a final
- 19 report, including any proposed legislation, to the legislature
- 20 no later than twenty days prior to the convening of the regular
- 21 session of 2016 on the following:
- 22 (1) The rate of contamination uptake from soil and water;



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         (2)
              The mode of efficient uptake from soil and water;
              The rate of carbon fixation in the Calvin cycle;
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         (3)
              The locations in the roots, stems, leaves, and flowers
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         (4)
              of the plants at which contaminants are fixated;
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         (5)
              What contaminants are stabilized in the plants;
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         (6)
              What contaminants on the site need additional
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              treatment in order to make the soil or water healthy
             and pristine;
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              A baseline for plants cultivated in a clean soil;
         (7)
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         (8)
              The viability of industrial hemp as a biofuel
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              feedstock; and
              Any other data deemed important by the dean.
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         (9)
         SECTION 3. No person shall be subject to any civil or
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    criminal sanctions in this State for growing or possessing
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    industrial hemp; provided that the person's growing or
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    possessing of industrial hemp is part of the individual's
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    participation in the two-year industrial hemp remediation and
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    biofuel crop research program and the person's participation is
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    in full compliance with the requirements of the program.
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         SECTION 4. This Act shall take effect on July 1, 2014, and
    shall be repealed on July 1, 2016.
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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. (SD1)

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