THE SENATE
TWENTY-SEVENTH LEGISLATURE, 2014
STATE OF HAWAII

# S.B. NO. 2175 S.D. 2

# A BILL FOR AN ACT

RELATING TO INDUSTRIAL HEMP.

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

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

The legislature further finds that the State will benefit from research for phytoremediation, which is the environmentally-friendly science of using plants and trees to remove toxins in the soil, such as metals, pesticides, solvents, explosives, and crude oil. These toxins can be reduced by planting specific plants and trees, called hyper-accumulators, in polluted areas. Specifically, these plants and trees draw in the toxins, along with beneficial nutrients, through their roots as nourishment and concentrate them in their stems, shoots, and leaves, which can then be harvested and disposed of safely. The nutrient uptake process leaves a clean, balanced, and nutrient

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

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

The legislature also finds that industrial hemp is an environmentally friendly and efficient feedstock for biofuel. Biodiesel plants already in existence in the State are capable of meeting eight per cent of the State's biodiesel needs for ground transportation. These biodiesel plants could increase their efficiency by utilizing industrial hemp as a feedstock, thus reducing the State's reliance on imported fuel.

The purpose of this Act is to authorize 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 crop research program.

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

(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;



(2) The mode of efficient uptake from soil and water;

(3) The rate of carbon fixation in the Calvin cycle;

(4) The locations in the roots, stems, leaves, and flowers of the plants at which contaminants are fixated;

(5) What contaminants are stabilized in the plants;

(6) What contaminants on the site need additional treatment in order to make the soil or water healthy and pristine;

(7) A baseline for plants cultivated in a clean soil;

(8) The viability of industrial hemp as a biofuel feedstock; and

(9) Any other data deemed important by the dean.

(c) For purposes of this Act, the term "industrial hemp" means the plant Cannibis sativa L. and any part of that plant, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 per cent on a dry weight basis. Any plant that meets the definition of "industrial hemp" under this Act shall not constitute "marijuana" as defined in section 329-1 or 712-1240, Hawaii Revised Statutes.

SECTION 3. No person shall be subject to any civil or criminal sanctions in this State for growing or possessing industrial hemp; provided that the person's growing or

possessing of industrial hemp is part of the individual's participation in the two-year industrial hemp remediation and biofuel crop research program and the person's participation is in full compliance with the requirements of the program.

SECTION 4. This Act shall take effect on July 1, 2014, and shall be repealed on July 1, 2016.

# S.B. NO. 2175 S.D. 2

**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. (SD2)

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