HOUSE OF REPRESENTATIVES TWENTY-NINTH LEGISLATURE, 2018 STATE OF HAWAII H.B. NO. <sup>1688</sup> H.D. 1

# A BILL FOR AN ACT

PART I

RELATING TO AGRICULTURE.

1

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

SECTION 1. Angiostrongyliasis, also known as rat lungworm 2 3 disease, is a disease that affects the brain and spinal cord. 4 It is caused by a parasitic nematode, a roundworm parasite, 5 called Angiostrongylus cantonensis. The adult form of A. 6 cantonensis is only found in rodents. However, infected rodents 7 can pass larvae of the worm in their feces. Snails, slugs, and 8 certain other animals can become infected by ingesting this 9 larvae; these are considered intermediate hosts. Humans can 10 become infected with A. cantonensis if they eat raw or 11 undercooked food contaminated by an intermediate host, thereby 12 ingesting the parasite. Diagnosing angiostrongyliasis can be 13 difficult, as there are no readily available blood tests. There 14 is no specific treatment for the disease.

15 In 2017, there were almost twenty laboratory-confirmed 16 cases of rat lungworm disease in Hawaii. According to the



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department of health, the risk of rat lungworm disease is
present on all islands of the State.

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The legislature finds that Hawaii is currently having an outbreak of rat lungworm disease in humans, dogs, cats, and horses. In Australia , dogs and cats were found to have contracted rat lungworm in the natural environment. Australia now uses animals as sentinels to detect rat lungworm outbreaks.

8 The legislature finds that as global warming increases, 9 there will be an increase in the number and types of viruses, 10 bacteria, parasites, and fungi that can spread between animals 11 and humans, making early detection and research imperative to 12 protect public health. Developing a valid medical model will be 13 essential to determining the best means of diagnosis, possible 14 treatment options, and timing of treatment of rat lungworm 15 disease.

16 The legislature further finds that studies have long 17 indicated that rat lungworm is found in freshwater organisms and 18 notes that in a 1950's disease outbreak there were more than one 19 thousand documented cases of people contracting rat lungworm 20 from consuming freshwater prawns in French Polynesia.

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1 The purpose of this part is to appropriate funds to the 2 department of agriculture, in collaboration with the department 3 of health and the University of Hawaii college of tropical 4 agriculture and human resources, for surveying, testing, and 5 treating rat lungworm disease in dogs, cats, horses, and 6 freshwater fish and invertebrates. 7 SECTION 2. There is appropriated out of the general 8 revenues of the State of Hawaii the sum of \$ or so much 9 thereof as may be necessary for fiscal year 2018-2019 for 10 surveying, testing, and treating rat lungworm disease by the 11 department of agriculture, in collaboration with the department 12 of health and the University of Hawaii college of tropical 13 agriculture and human resources in dogs, cats, horses, and 14 freshwater fish and invertebrates. 15 The sum appropriated shall be expended by the department of 16 agriculture for the purpose of this Act. 17 PART II 18 SECTION 3. Hawaii is one of the most geographically 19 isolated locations in the world. Almost all food items consumed 20 in-state must be shipped to Hawaii to support the needs of the 21 State's population. The Hawaii State Planning Act recognizes

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1 aquacultural production as both a driver of a diversified 2 agricultural economy and as a source for food sustainability 3 statewide. Aquaponics is the combination of aquaculture 4 (raising fish) and hydroponics (the soil-less growing of plants) 5 that grows fish and plants together in one integrated system. 6 The fish waste provides an organic food source for the plants 7 and the plants naturally filter the water for the fish. The 8 legislature finds that increasing the use of aquaponics to produce food from fish and plants will benefit the State's 9 10 economy and food security.

11 The purpose of this part is to appropriate funds to the 12 department of agriculture for researching, developing, and 13 supporting aquaponics in the State.

SECTION 4. There is appropriated out of the general revenues of the State of Hawaii the sum of \$\$ or so much thereof as may be necessary for fiscal year 2018-2019 for the department of agriculture for research, development, and support of aquaponics in the State.

19 The sum appropriated shall be expended by the department of 20 agriculture for the purpose of this Act.

21 SECTION 5. This Act shall take effect on July 1, 2018.





### Report Title:

Agriculture; Rat Lungworm Disease; Aquaponics; Appropriations

### Description:

Appropriates funds to the Department of Agriculture for surveying, testing, and treating rat lungworm disease in animals and for researching, developing, and supporting aquaponics. (HB1688 HD1)

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