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**DEPARTMENT OF AGRICULTURE**  
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**TESTIMONY OF DENISE ALBANO  
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE HOUSE COMMITTEES ON AGRICULTURE AND HEALTH**

**JANUARY 31, 2019  
11:00 A.M.  
CONFERENCE ROOM 329**

**HOUSE BILL NO. 536  
RELATING TO RAW MILK**

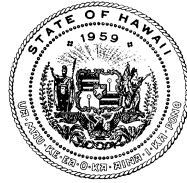
Chairperson Creagan, Chairperson Mizuno, and Members of the Committees:

Thank you for the opportunity to provide testimony on House Bill 536, which proposes the sale of raw milk and raw milk products directly to consumers from the farm. The Department offers the following comments and defers to Department of Health.

Despite advances in animal health, milking hygiene, and processing technology, milk born disease outbreaks continue to occur. Since milk is derived from animals, it carries an inherent risk of being contaminated with pathogens from its source (cows, goats, sheep, and the farm environment). A key factor in the prevention of milk borne disease is the avoidance of raw milk consumption. This bill even states that a label is required that warns about the risks of consuming raw milk by stating that raw milk contains pathogens that may be unsafe to consume. The consumption of raw milk and raw milk products is a public health and milk safety issue. As such, the placement of this bill under Chapter 157 HRS is not appropriate. The Hawaii Department of Agriculture respectfully defers this bill to the Department of Health.

Thank you for the opportunity to testify on this measure.





**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
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**Testimony in OPPOSITION to HB 536**  
**RELATING TO RAW MILK**

REPRESENTATIVE RICHARD P. CREAGAN, CHAIR  
HOUSE COMMITTEE ON AGRICULTURE;  
REPRESENTATIVE JOHN M. MIZUNO, CHAIR,  
HOUSE COMMITTEE ON HEALTH

Hearing Date: January 31, 2019

Room Number: 329

1 **Fiscal Implications:** None

2 **Department Testimony:** The department opposes this bill.

3 The department opposes this bill, as does the United States Food and Administration's (FDA),  
4 and the Center for Disease Control and Prevention (CDC) due to the public health concerns  
5 surrounding the sale/consumption of raw milk. According to the CDC, between 1993 and 2006  
6 more than 1500 people have gotten ill from consuming raw milk, or raw milk cheese and other  
7 products containing raw milk. In addition, the CDC reported that consuming unpasteurized milk  
8 is 150 times more likely to cause foodborne illness and 13 times more hospitalizations than  
9 drinking pasteurized milk products.

10 The State of Hawaii currently prohibits the sale of raw milk in any form. Hawaii Administrative  
11 Rules, Title 11, Chapter 15, "Milk", Section 11-15-45, Milk and Milk Products which may be  
12 sold, states in part that "Only Grade "A" pasteurized milk and milk products shall be sold to the  
13 final consumer"...

14 Please be advised that FDA and other federal and state health agencies have documented a long  
15 history of the risks to human health associated with the consumption of raw milk. Clinical and  
16 epidemiological studies from FDA, state health agencies, and others have established a direct  
17 causal link between gastrointestinal disease and the consumption of raw milk. The microbial  
18 flora of raw milk may include human pathogens present on the cow's udder and teats. Further,  
19 the intrinsic properties of milk, including its pH and nutrient content, make it an excellent media  
20 for the survival and growth of bacteria.

21 On August 10, 1987, FDA published in 21 CFR Part 1240.61, a final regulation mandating the  
22 pasteurization of all milk and milk products in final package form for direct human consumption.

1 This regulation addresses milk shipped in interstate commerce and became effective September  
2 9, 1987.

3 In this Federal Register notification for the final rule to 21 CFR Part 1240.61, FDA made a  
4 number of findings including the following:

5 "Raw milk, no matter how carefully produced, may be unsafe."

6 "It has not been shown to be feasible to perform routine bacteriological tests on the raw  
7 milk itself to determine the presence or absence of all pathogens and thereby ensure that  
8 it is free of infectious organisms."

9 "Opportunities for the introduction and persistence of *Salmonella* on dairy premises are  
10 numerous and varied, and technology does not exist to eliminate *Salmonella* infection  
11 from dairy herds or to preclude re-introduction of *Salmonella* organisms. Moreover  
12 recent studies show that cattle can carry and shed *S. dublin* organisms for many years and  
13 demonstrated that *S. dublin* cannot be routinely detected in cows that are mammary gland  
14 shedders."

15 During this rulemaking process, the American Academy of Pediatrics and numerous others  
16 submitted comments in support of the proposed regulation.

17 In deciding upon mandatory pasteurization, FDA determined that pasteurization was the only  
18 means to assure the destruction of pathogenic microorganisms that might be present. This  
19 decision was science-based involving epidemiological evidence. FDA and the CDC have  
20 documented illnesses associated with the consumption of raw milk, including "certified raw  
21 milk" and have stated that the risks of consuming raw milk far outweigh any benefits.

22 In light of research showing no meaningful difference in the nutritional value of pasteurized and  
23 unpasteurized milk, FDA and CDC have also concluded that the health risks associated with the  
24 consumption of raw milk far outweigh any benefits derived from its consumption.

25 There are numerous documented outbreaks of milkborne disease involving *Salmonella* and  
26 *Campylobacter* infections directly linked to the consumption of unpasteurized milk in the past 20  
27 years. Since the early 1980's, cases of raw milk-associated campylobacteriosis have been  
28 reported in the states of Arizona, California, Colorado, Georgia, Kansas, Maine, Montana, New  
29 Mexico, Oregon, and Pennsylvania. An outbreak of Salmonellosis, involving 50 cases was  
30 confirmed in Ohio in 2002. Recent cases of *E. coli* O157:H7, *Listeria monocytogenes* and  
31 *Yersinia enterocolitica* infections have also been attributed to raw milk consumption.

32 In the court case *Public Citizen v. Heckler*, 653f. Supp. 1229 (D.D.C. 1986), the federal district  
33 court concluded that the record presents "overwhelming evidence of the risks associated with the  
34 consumption of raw milk, both certified and otherwise". The court stated that the evidence FDA

1 has accumulated concerning raw milk "Conclusively shows that raw and certified raw milk are  
2 unsafe" and "There is no longer any question of fact as to whether raw milk is unsafe".

3 State health and agricultural agencies routinely use the U.S. Public Health Service/FDA  
4 Pasteurized Milk Ordinance (PMO) as the basis for the regulation of Grade "A" milk production  
5 and processing. The PMO has been sanctioned by the National Conference on Interstate Milk  
6 Shipments (NCIMS) and provides a national standard of uniform measures that is applied to  
7 Grade "A" dairy farms and milk processing facilities to assure safe milk and milk products.  
8 Section 9 of the PMO specifies that only Grade "A" pasteurized milk be sold to the consumer.

9 In summary, since raw milk may contain human pathogens, the consumption of raw milk  
10 products increases the risk of gastrointestinal illness due to the likelihood that it may contain  
11 infective doses of human pathogens. Other pathogens known to be transmitted by raw milk  
12 consumption could lead to serious illness, or even death, in the segment of our population that is  
13 the most vulnerable. This includes children and infants, our elderly, and any person who is  
14 immunocompromised due to illness or treatment of illnesses. The only method proven to be  
15 reliable in reducing the level of human pathogens in milk and milk products is by those milk  
16 products being produced and processed under sanitary conditions and subsequently being  
17 properly pasteurized. The U.S. Food and Drug Administration; therefore, strongly advises  
18 against the consumption of raw milk.

19 References related to this subject may be found in the following documents:

- 20 • *American Journal of Public Health*, -- November 21, 1997
- 21 • *Journal of the American Medical Association* -- October 1984, May 1999, March 3, 1989
- 22 • *Journal of Public Health Policy, Inc.* -- September 1981
- 23 • *Morbidity and Mortality Weekly* -- June 28, 2002
- 24 • *Journal of Food Protection* -- Volume 61, Number 10, 1998
- 25 • *United States Department of Agriculture (USDA)* -- Fact Sheet -- July 1995

26  
27 Proposals to allow for both cow sharing and raw milk for animal/pet consumption are being  
28 proposed to "back-door" existing regulations and the intent is to divert consumption to humans.

29 Thank you for the opportunity to testify on this measure.

**HB-536**

Submitted on: 1/30/2019 7:12:38 AM

Testimony for AGR on 1/31/2019 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
David Penn	South Mountain Ranch	Comments	No

Comments:

Good morning, mahalo for hearing HB536, Relating to Raw Milk.

We are one of a growing number of small farms pursuing the husbandry of domestic dairy water buffalo as a local, sustainable source of highly nutritious food for our island society. We support the intent of this bill to facilitate the State's ability to meet a growing demand for locally-produced raw milk products that come from all domestic dairy animals, not from the cow alone. We propose the following amendments (numbered 1-4 below) that we believe would clarify and simplify State regulation of raw milk products that come from all domestic dairy animals.

1. Subtitle this bill as Dairy Producers Enhancement Act, to be codified as a new chapter in Hawai'i Revised Statutes Title 11, Agriculture and Animals. Chapter 158 seems like an appropriate codification, as it would follow Chapter 157, Milk Control Act. We believe that squeezing the provisions of SB451 into Chapter 157 is less than ideal, given that the definition of "milk" in the Milk Control Act is limited to milk from the cow, only, and that the overall purpose and application of Chapter 157 seems aimed, primarily, at regulating the economy of milk from the cow, only.

Also, we encourage the Legislature to incorporate appropriate amendments that are based on more robust and detailed legislation (enacted and proposed) from other jurisdictions, domestic and foreign, and from NGOs that focus on related issues.

2. Add a stand-alone definition section in which "domestic dairy animal" specifically includes, at least, domestic cow, goat, horse, sheep, and water buffalo; "milk" encompasses the lacteal secretions of a domestic dairy animal; and the definitions of "milk products" and its various types follow accordingly.

3. Remove the limitation in section (a) concerning "no more than two milk bearing cows." Limitations other than herd size would seem more appropriate, if necessary.

4. Add a statutory provision that prohibits a raw milk producer from transporting, shipping, mailing, or otherwise providing for the delivery of raw milk products from one island to another, within the State.

Thank you for considering this testimony on HB536, Relating to Raw Milk.



**HB-536**

Submitted on: 1/30/2019 12:18:28 PM

Testimony for AGR on 1/31/2019 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
michelle rose	cloudwater farm LLC	Support	No

Comments:

Aloha Representative Nakashima,

As a Food Science and Human Nutrition Student of the University of Minnesota and a Farmer of 18 years on Kaua'i, I whole hearted support this bill HB-536.

I have read and fully understand and agree with Don Heacock's Motion.

I also endorse and will adhere to the "Common Standard's for safe and healthy Milk.

Mahalo,

Michelle Rose

Owner of Cloudwater Farm LLC for 9 years

**HB-536**

Submitted on: 1/29/2019 3:29:23 AM

Testimony for AGR on 1/31/2019 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Randy Gonce	Individual	Support	No

Comments:



**HB-536**

Submitted on: 1/29/2019 11:06:11 AM

Testimony for AGR on 1/31/2019 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Joy Bitonio	Individual	Support	No

Comments:

I have experience first hand the benefits of raw milk from healthy, humanely raised/treated, grass-fed, pasture-raised and grazed cows. Raw dairy is a complete food with many health benefits that is easy to digest. It is packed with bioavailable vitamins, minerals, enzymes, healthy fats, beneficial bacteria, naturally occurring CLA and Omega-3 fatty acids since it is not processed.

As quoted from Dr Deborah MD:

From 2004 to 2012, federal and state agents have conducted armed sting operations across America, raiding farms and issuing criminal warrants for farmers and shopkeepers from California to Pennsylvania. A few were even arrested. Were they after drug smugglers, perhaps? Or pursuing a threat to national intelligence?

Agents also seized and confiscated property. Was it contraband? No, it was raw milk, the same substance our ancestors and maybe even grandparents drank on a daily basis, when heart disease was almost unheard of and cancer was still a rarity.

Today, raw milk refers to unprocessed, untreated milk straight from the cow. The milk you buy from the local supermarket nowadays is a different substance altogether. It has been pasteurized, ultra-pasteurized, or homogenized. This liquid is not really milk. It is a chemically altered substance, heated to remove pathogens and bacteria and to prolong its shelf life. The resultant low-enzyme activity makes it difficult to digest, the altered fat content renders the vitamins and minerals difficult to absorb, and the residual drugs and antibiotics pose a threat to human health. On top of this, the naturally occurring beneficial bacteria have been destroyed.

The real issue is not whether raw milk obtained from grass-fed cows is safe. Rather, it's that milk from commercially raised cows is actually dangerous to consume unless it is pasteurized. Factory-farmed animals are routinely fed an unnatural, high-protein soy- and corn-based diet and given shots of BGH (bovine growth hormone) to artificially increase milk production. This diet is so contrary to their biology that it causes severe illnesses that can only be combated by continually injecting the cows with antibiotics. These animals, kept in inhumane conditions far from their natural environment, are subject to enormous stresses. Drinking raw milk from these cows would be an exercise in stupidity.

Raw milk from healthy, grass-fed, and pasture-raised cows is in a league of its own. Organically raised cows are happy, fed on their natural diet of grass and other cow-friendly foods. They enjoy access to sunshine and pasture grazing in summer, and in winter they feast on nutritious hay or silage.

Natural health advocates have long cautioned against drinking milk because of the increased risk of ear infections, asthma, and eczema associated with its consumption. This applies only to commercially produced milk, not raw milk from organic farms. Raw milk actually helps [protect against allergic reactions\(link is external\)](#) and boosts the immune system.

Raw milk is an incredibly complex whole food, complete with digestive enzymes and its own antiviral, antibacterial, and anti-parasitic mechanisms conveniently built into a neat package. It is chock-full of both fat and water-soluble vitamins, a wide range of minerals and trace elements, all eight essential amino acids, more than 60 enzymes, and CLA—an omega-6 fatty acid with impressive effects on everything from insulin resistance to cancer to cardiovascular disease. Raw milk is delicious medicine.

Commercial producers know their milk cannot be sold unpasteurized. To admit this would jeopardize their entire operation. Instead, they demonize raw milk, despite the fact that humankind has safely consumed milk in its natural state for thousands of years.

Both sides of the raw milk debate feel strongly about their respective positions, and both share valid concerns. Federal and state health agencies view the consumption of any raw milk as risky to human health. To them, milk is milk, and the only way to protect the public from the potential danger of pathogens such as salmonella, *E. coli*, and listeria is through pasteurization. According to statistics used by the FDA, raw milk has been linked to 1,837 cases of illness between 1998 and 2009. These led to 195 hospitalizations and two deaths. While the feds feel justified engaging in armed raids on farms, is this where we want our SWAT teams?

Raw milk advocates are upset that the government is denying their right to choose unpasteurized milk from healthy cows because of the problems associated with conventionally produced milk.

Numerous studies document the benefits of raw milk, including the “milk cure” used by the Mayo Clinic in the 1900s for diseases ranging from cancer to weight loss to chronic fatigue. A comment in a report prepared by the Weston A. Price Foundation helps explain the contradictory stances on this ancient food: “The literature implicating raw milk in food borne illness exhibits a systematic bias against this food. In many cases, this bias is not intentional, but is a product of sloppy scientific principles.” The report concludes, “It appears that most investigators are thoroughly convinced that raw milk poses a major threat to public health, and thus they often rush to judgment to implicate raw milk even when the science is not fully supportive.” Now there’s food for thought.

Reference sources:

<https://www.organicpastures.com/about/>

<https://www.drdeborahmd.com/health-benefits-raw-milk>

**HB-536**

Submitted on: 1/29/2019 5:15:37 PM

Testimony for AGR on 1/31/2019 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Brittany Anderson	Individual	Support	No

Comments:

I support the raw milk bill however I would like the inclusion of goat milk. Goat milk is closely related to human milk and many children who are lactose intolerant, suffer from ailments and allergies, find relief after consuming raw goat milk. The inclusion of raw goat milk in this bill will make it more comprehensive and applicable to the population of Hawaii.

Donald E. Heacock  
Kaua'i Organic AgroecoSystems (KOA)  
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30 January 2019

To: Representative Nakashima  
Fm: Don Heacock, Owner/Operator of KOA  
cc. Representatives Tokioka and Morikawa

Subject: Strong support for HB 536 "Relating to Dairy Producers"

Dear Representative Nakashima and Committee members,

I strongly support HB 536, conditional upon adoption of recommended amendments listed below, because it will allow consumers access to safe and nutritious unpasteurized (raw) milk and their products by legalizing the sale of raw milk and their products and enhancing food security in Hawaii.

Unpasteurized, nutritious and healthful "real milk" contains beneficial digestive enzymes, beneficial probiotics, is high in vitamins C, B12, B6 and D. Pasteurization denatures these enzymes, destroys the vitamins, promotes the growth of pathogens, and is associated with human allergies, tooth decay, colic in infants, growth problems in children, osteoporosis, arthritis, heart disease and cancer.

Scientific, peer-reviewed, studies show that children fed raw milk have more resistance to tuberculosis than children fed pasteurized milk (Lancet, p 1142, 5/8/37; that raw milk is very effective in preventing scurvy and protecting against flu, diphtheria and pneumonia (Am. J. Dis. Child., Nov.2017); that raw milk prevents tooth decay, even in children who eat large amounts of sugar (Lancet, p 1142, 5/8/37); that raw milk is better than pasteurized milk in promoting growth and calcium absorption (Ohio Agric. Exper. Station Bull. 518, p 8, 1/33; that a substance present in raw cream (but absent in pasteurized cream) prevents joint stiffness and the pain of arthritis (Ann. Rev. Biochemistry, 18: 435, 1944); and that children who drink raw milk have fewer allergenic skin problems and far less asthma than do children who drink pasteurized milk (Lancet 2001, p 358; 1933, p. 1129).

Whitehead and Lake (2018) show that since 2005 there has been a 74% decline in unpasteurized (raw) milk associated illnesses in the USA, while at the same time there has been a 357% increase in raw milk producers and a significant increase in legal raw milk sales nationwide. Much of this advancement in food safety is believed to be a result of the work of the Raw Milk Institute's (RMI's) Dairy Farmer Training Program, and their associated development of "Common Standards" (Attached

below) that raw milk producers need to follow to assure the sanitation procedures necessary to produce safe raw milk .

Finally, I recommend the following amendments to HB 536:

1. Because HRS Title 11, Agriculture and Animals, Chapter 157, the Milk Control Act focuses only on regulating milk from cows, it may be better to establish a new Chapter 158, entitled “Raw Dairy Producers Enhancement Act” This new chapter 158 would include the sale of raw milk/products from domestic cows, goats, sheep and water buffalo.

2. On p.2, line 11-13, delete the phrase “two cows per farm” and amend to read: provided that the farm and its facilities from which raw milk or raw milk products originates has adopted and implemented the dairy farmer training program and the “Common Standards” developed by the Raw Milk Institute (rawmilkinstitute.org) which assure the safety and quality of raw milk; therefore please include language into HB 536 that includes incorporation of these “Common Standards” (Attached below) as an amendment and include the “Raw Milk Producers Training Program”, which was developed by the Raw Milk Institute (rawmilkinstitute.com) in California.

3. P. 3, line 4, (3), “Regulate sharing of cows...what does this mean? How will it prevent spread of cattle diseases? May want to delete this line, see reasons on page 4 and 5 of “Common Standards” attached below.

4. P. 3, line 16, amend to read: ...otherwise treated with heat not over 105 degrees F. Since it is necessary to produce “mozzarella di bufala”, the original mozzarella made from raw milk from water buffalo, by warming it to 105 degrees F.

5. P. 3, line 17, add Ghee (clarified butter) to list of “Raw milk products”.

Mahalo for giving me this opportunity to comment on this important subject. Please pass HB536 with these recommended amendments.

Aloha no e malama pono,

Don Heacock, KOA Owner/Manager

Attached: “Common Standards” for safe and healthy raw milk



# Common Standards

## Mission

“The mission of the Raw Milk Institute is to improve human health and the immune system by training and mentoring farmers; educating consumers; establishing national raw milk guidelines; outreach to farmers, consumers, regulators, universities, the media, and other groups; listing producers, and supporting research.”

There are three fundamental components to the Raw Milk Institute farmer mentoring program:

- Common Standards** that all *Listed* farmers follow (
- Risk Analysis and Management Program (RAMP)**, food safety program specific and appropriate to farm (size (
- Training and Education** (

The following Common Standards are guidelines used by dairy farmers in the production of raw milk. All farmers *Listed* with Raw Milk Institute make every effort to achieve these Common Standards with transparency and integrity.

### **Common Standards for *Listed* Raw Milk farmers:**

1. Have a Risk Analysis and Management Plan (RAMP) for raw milk production
2. Raw Milk shall not contain zoonotic pathogens including: *Salmonella spp.*, *E. coli* O157:H7, *Campylobacter spp.*, and *Listeria monocytogenes*.
  - a. Testing and testing frequency will depend on each farmers individual RAMP
3. Test for coliform bacteria\*

- a. Testing frequency will depend on each farmers individual RAMP
  - b. Target: a rolling three- month average of less than 10 coliforms per ml raw milk.
4. Test for Standard Plate Count (SPC)
    - a. Testing frequency will depend on each farmers individual RAMP
    - b. Target: a rolling three-month average of less than 5,000 per ml raw milk.
  5. Sell raw milk for direct human consumption only from their own farm
    - a. Commingling of raw milk from other dairies is not permitted.
  6. Provide documentation and assurance that herds are tuberculosis (TB) free and tested one time per year OR meet local TB requirements.
  7. Provide documentation or assurance that herds are brucellosis free.

### **RAMP Food Safety Plan (Risk Analysis and Management Program)**

\* Bactoscan or other equivalent testing methods are also approved

All *Listed* farmers have a basic food safety plan- a **RAMP**- that assists them in the achievement of the Raw Milk Institute's Common Standards. With technical assistance provided by RAWMI, each *Listed* farmer develops their own specific RAMP with size appropriate frequency of monitoring, sampling and testing. This comprehensive plan identifies potential risks that are present at the farm. Management practices are set up to reduce, manage, or mitigate those potential risks.



**Individual RAMPs include: Risk assessment and mitigation measures for the following risks:**

1. Animal introduction onto farm (transportation and trade risks) a. New animal risk introduction and risk mitigation
  - i. Health screening animals for potential bacterial hazards
  - ii. Segregating animals introduced into the herd
2. Milk handling and management
  - a. Training of milking team and milking protocols
  - b. Protection and security of raw milk after milking is complete.
  - c. Cleaning protocols and documentation
3. Environmental sources
  - a. Water sources
  - b. Water administration systems
  - c. Manure management
  - d. Bedding management
  - e. Wild animals/rodents
  - f. Land and soil issues
  - g. Weather
4. Feed sources
  - a. Purchased feed

- b. Silage
- c. Water feeder management
- 5. Human factors
  - a. Health of milking team
  - b. Risk introduction by people
- 6. Nutritional factors
  - a. Nutritional management of the cow
  - b. Nutritional plan for reduction of pathogen development or shedding in manure.

#### **Procedures, protocols, documentation**

- 7. Testing procedures for indicator bacteria including: *Coliforms* and *SPC*
- 8. Testing procedures (if utilized in specific RAMP) for potential zoonotic bacteria including *Salmonella*, *Listeria*, *Campylobacter* and *E. coli O157:H7*.
- 9. Checklists that document annual, monthly, weekly and daily management practices.
- 10. Protocols for action steps in the event of substandard results.

#### **Additional RAWMI Training:**

- 1. Farm bio-security – how to protect your herd
- 2. Know your enemy- basic microbiology, bacteria, the good and the bad

3. Preventive herd health medicine
4. Consumer education and outreach
5. Media management and communication skills
6. Recall and critical incident management.

\* Bactoscan or other equivalent testing methods are also approved

**HB-536**

Submitted on: 1/30/2019 1:01:29 PM

Testimony for AGR on 1/31/2019 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jean Brokish	Individual	Support	No

Comments: