

Extended written remarks to the Connecticut House Environment Committee concerning
Raised Bills 6312 and 6313.

Chair and Committee members.

My name is Ted F. Beals. I live in Michigan. [16100 Seymour Rd. Grass Lake, MI 49240] I am a certified pathologist (human type) and retired from the faculty of the University of Michigan Medical School, and the Senior Executive Service of the Department of Veterans Affairs in Washington DC. Since retirement I have focused on the health and safety of milk.

1. Distinction between testing to monitoring good farming practices (critical control points HACCP), and testing as an absolute criteria for action to prohibit processing and distribution justified by an imminent threat to public safety.

Language throughout these two bills concerning the requirements for testing fails to recognize the distinction between testing performed for the purpose of monitoring good dairy practices, and those that authorize the Commissioner to stop production.

Dairy safety practice have commonly used indicator tests. They are widely used as part of a farm safety plan that would initiate on-farm investigation of the breakdown of good dairy practices. Distinctly different are those tests, which if positive, would justify intervention without any additional investigation. You can see this distinction in your current regulations. Regulations of Connecticut State Agencies, Section 23-133-130 (c); provide notification and step-by-step follow-up including reporting and additional testing. In section 23-133-130 (d) (e), documentation of adulteration allow immediate intervention.

The language in Raised Bill 6313 should maintain this distinction and give justification if the intent is that a finding is so grave that immediate action is warranted. However, as written, the simple presumptive lab report of one of the listed pathogens is deemed to be adequate evidence of public health threat. As discussed above, this is scientifically unjustified and could result in serious damage to this group of small businesses without serving any public health benefit. The language must be clarified to ensure that new regulations to be used with the results of several monitoring tests and the new cow feces sampling are not written that would shift the authority of the agency to close down an operation before there is adequate evidence that there is an imminent threat to the public.

2. Subtle but scientifically critical changes in the language of the bills that shifts action taken in response to an abnormal lab report. [mostly pointed at the present regs that require confirmation of pathogen, to new language that simply says presences, meaning presumptive.]

In bill 6313 an important standard is radically changed from determining by testing with "confirmed presence" of pathogens as described in Regulations: 22-133-130 (e) to action taken to close down the operation with the mere "presence" of a pathogen (see

line 78 through 83 of Bill 6313). This is a wording change that has profound scientific and public health relevance and profound impact on the retail raw dairy operators.

3. *Distinction between the common usage of the term pathogen (even with specific genus and species names) and the scientifically correct phrase: virulent bacteria that would ordinarily cause illness in humans.*

The term pathogen is commonly used in food safety. However, in the context of the language in bill 6313 there are real problems.

The term "pathogen" has no scientific specificity. At best it labels a group of bacteria, some of which are ordinarily capable of causing illness in people. Many bacteria in these groups labeled as pathogens, have never been shown to cause illness. And some are regularly present in our environment.

The routine tests for pathogens used by dairy labs do not establish that a virulent bacteria is present in the sample. They are high-tech rapid screens to give a quick answer. They are appropriately used as monitors if the legislative intent of the test is to flag a change in the dairy operations. A change in dairy practices needs to be examined when the critical control point monitor raises a flag. The producer should investigate and take necessary corrective action to return to a controlled dairy safety plan. In this context the term, and specified pathogens are reasonable.

If the legislative intent is to set a standard establishing a threat to the public safety that would justify the Commissioner to shut down operations, then the term pathogen is not nearly adequate. And if this is the intent, then the pathogen test must require confirmation before allowing such drastic action. Your current regulations make this point. But the language in 6313 just goes around this critical point. As a result the amendments could cause great harm to the producer without establishing that a public threat even exists.

Knowledgeable scientists refrain from simply saying 'pathogen present', but would report specific bacteria with verified specific characteristics matching between the isolate from an illness and a food.

4. *Need for both presence of virulent bacteria but also living and in adequate numbers to cause illness if the result of the testing is the stopping of production and distribution.*

The lab report positive for pathogen is inadequate.

I have already commented on the need to be more precise if the requirement goes beyond monitoring.

In addition the bacteria that are detected must be viable and in adequate numbers to cause illness. Otherwise they are interesting, but not evidence of a public health threat. The lab tests used to satisfy your laws, generally do not determine whether the bacteria found was alive, inactive, or dead. And they do not determine if the bacteria is there in adequate numbers to ordinarily cause illness in people. Experience in neighboring states make this point. Cease-production-orders are being issued, but no one who

actually consumed the suspect raw milk became sick, not even children and elderly consumers. Most of this evidence is solid since the specific consumers are identified and the batches of milk consumed can be accurately determined. They know who picked up the milk and exactly which milking they received. I follow these cases carefully and know of no case of illness linked to raw dairy operations preemptively stopped. And most, if not all of the implicated milk has been consumed.

5. No scientific rationale for focusing on fecal sources of pathogens, when it is only one of many recognized sources of possible contamination. Huge expense and administrative oversight. And provides no added public safety.

It is unclear to me why testing of each animal's feces is introduced in this bill? The presence of a pathogen in a cow, even a virulent bacterium ordinarily capable of causing illness in humans, is not a public health threat, until it contaminates some food, or contaminates the containers distributing the food. A virulent pathogen has to get into the mouth of the consumer to cause foodborne illness.

Failure of risk management practices provides the opportunity for contamination. However, cows shedding pathogens are only one of many important sources of pathogens in the dairy environment that might contaminate the milk. Singling out the cow's feces and ignoring the other sources does not make sense from a risk management perspective.

Some of the environmental pathogens, such as *Listeria monocytogenes*, are ubiquitous in the environment, so testing for this organism would be positive all of the time.

This testing will cost the dairy farmers a lot of money and it will not further the public safety.

6. Amendments seem to be a sledgehammer approach to a remarkably uncommon public health event. Despite a long record of production and distribution of a safe, healthy, and desirable product.

I am aware of the long history of safety of the retail raw milk niche market in Connecticut. I am also aware of the isolated and unique circumstance that recently blemished this outstanding record. But any objective analysis of your safety and inspection record under existing laws and regulations does not reveal any justification for the untried and highly punitive requirements itemized in these bills.

7. Some specific language in the proposed bill that need attention. These are presented in extended remarks that I have made available to the committee.

As a person who has been responsible for writing policy regulations I can not help but see instances where the language in Raised bills 6312 and 6313 does not match the intent. So here are some problems that I noticed.

- 6313: line #57. the language says that the sample must be "comingled" and "representing all" product. It is unclear how the producer is supposed to obtain such a sample. Sampling is acknowledged and designed to be random. I simply do

- not know how you comingle the entire market product from a month and obtain a representative sample.
- 6313: line #74 rather than saying the standard for fecal coliform is no greater than..... it flatly states that it "shall not exceed". This implies that the presence of fecal coliforms is hazardous. We know that the group of bacteria that are counted in this standard test are NOT hazardous. An abnormal count with this test is designed to trigger an investigation by the producers. Only when there is confirmation of the presence of virulent bacteria is there a real health threat.
 - 6313: #76 and 77 same is true for the Staph. aureus count.
 - 6313: #84 This language changes the standard from positive in feces to positive from any specimen from the animal. The language needs to be focused on the intent.
 - 6313: #90 allows treatment of the animal, but does not allow for alternatives to treatment such as removal of the animal from the farm.
 - 6312: #14 uses "diseased" when referring to milk or milk product. Inanimate objects can not be diseased. This word is unnecessary and inaccurate and should be removed from the list.

I thank the committee for the opportunity to address this serious issue and bring my professional perspective on some specifics of these two bills.

If you have any questions.