From: Greg Collett
To: Rulesinfo
Subject: {External}Rules Governing Raw Milk
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Comments regarding general bacteria and coliform testing requirements as found in IDAPA – IDAHO DEPARTMENT OF AGRICULTURE Animals Division 02.04.13 – Rules Governing Raw Milk

State regulation regarding raw milk centers around food safety concerns, particularly food borne illnesses caused by bacteria or parasites, known as pathogens, such as Campylobacter, Cryptosporidium, Salmonella, Shiga toxin-producing Escherichia coli, Shigella, and Yersinia. Since raw milk is not subject to pasteurization, which presumably destroys pathogens, the state has instead mandated that raw milk be tested on a monthly basis.

However, the state does not test for any specific pathogens; rather, it simply tests for general bacteria and coliform counts. Because of this, consumers are given a false sense of security. Using general bacteria counts will statistically result in false indications of problems and rare cases of actual problems will go undiscovered. Because they are simply indications rather than confirmed pathogens, there is a laid back approach to the results. Instead of taking immediate action on the discovery of confirmed pathogens, the state instead does not take action until 3 of the last 5 tests are over the limit.

For instance, a pathogen commonly known as E. Coli is really just one of a very few Shiga toxin-producing Escherichia coli like O157:H7. These pathogens are a tiny subset of all E. Coli bacteria in general. The CDC states, “Most E. coli are harmless and actually are an important part of a healthy human intestinal tract.” (https://www.cdc.gov/ecoli/general/index.html). E. Coli constitutes a small subset of fecal coliform (coliform that live in the host’s intestines), which in turn is just a small subset of total coliform.

There are two reasons I have been given for coliform testing:
(1) Hygienic indicator - High coliform counts can be an indication of unsanitary practices, especially fecal contamination during the milking process. This is not always a valid reason, however, because a very common source of coliform is a contaminated water supply which has no bearing on the sanitization procedures or cleanliness of a dairy and is tested separately from the milk.
(2) Pathogenic indicator - Coliform testing has been used because it is cheaper than testing for actual pathogens; however, the risk of actual pathogens is low even with a high total coliform count.

If coliform testing is used as an indicator then it must be treated as an indicator, not as a cause to declare a public health hazard. For example, if there is an elevated coliform count then an E. coli test should be performed. This is already the case with water testing. In addition, if there is an elevated E. coli count then testing should be done for actual pathogens. Only the confirmed presence of actual pathogens should be cause to take action.

Under the current rules, a permit may be suspended when general bacteria or coliform counts exceed the arbitrary limits set by the state. In such a case, there has been no confirmation of an actual public health hazard because no pathogens have been identified. Suspending a permit when a public health hazard does not exist creates unfounded concern from retailers and consumers, unnecessarily decreases the raw milk supply for consumers, negatively affects the reputation of a dairy, and causes severe financial impacts on the dairy.

One of the reasons consumers desire raw milk is because it contains live bacteria, so it does not make sense to base raw milk standards on general bacterial counts. A better approach would be for dairies to test for actual pathogens so they could take immediate action if a real problem is discovered.