Agri *Resource*

The Importance of Water on Dairy Production

We all know that some of the key factors in improving milk production, reproduction and dry matter intake include:

1. **FORAGE QUALITY**
2. **A PROPERLY BALANCED RATION**
3. **COW COMFORT MANAGEMENT PRACTICES**

If all the above have been taken care of and you are still not satisfied with your results, let's look at one factor that is often overlooked on today's dairy farms. **WATER, WATER and WATER!**

By far, a cow will ingest more water pound-wise **than any other nutrient each and every day!** You ask how much more? A high producing cow (at or above 100 lbs. per day) will eat between 125 lbs. to 175 lbs. of feed per day, depending on the dry matter of the ration. The same cow will drink between 250 lbs. to 350 lbs. of water each day which is 28 to 40 gallons depending on the heat and humidity. **Pound-wise**, the cow is drinking double the amount of water **OR MORE** compared to the amount of feed she is eating each day.

Good Quality Drinking Water combined with a balanced feeding program, will maximize production and help maintain animal health.

Pioneer Water Testing Laboratory recommends the following strategy:

1) If a farmer has not had their water tested, make arrangements to have it tested at PWTL.
2) Problems uncovered should be addressed and handled by a professional
3) Once a problem is fixed, water should be re-checked to be sure quality has been restored.
4) A water source should be checked twice a year.

We recommend our **Farm Livestock Bundle + Total Coliform Count**. This package will ensure all issues have been addressed. However, if this particular test package is not suited for a particular farm, please consult our web-site or price guide for additional tests and information.

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Bacterial Contamination

Bacterial contamination of water is measured in our laboratory using microbiological techniques to permit any bacteria present in a water sample to grow. Results are then counted and reported as bacterial counts per 100 mL of water. A coliform count over 1/100 mL can cause scours in calves. In adult cows, a count of 15-20/100 mL can cause diarrhea and cows may go off-feed. Positive results for fecal coliform (more than 0 counts/100 mL) indicate a pollution problem that should be investigated and corrected.

The following graph illustrates the results of 404 water samples assayed in our laboratory for Total Coliform from November 1, 2005 thru April 28, 2006. 55% tested positive for coliforms at an unsafe level as designated by the US EPA.

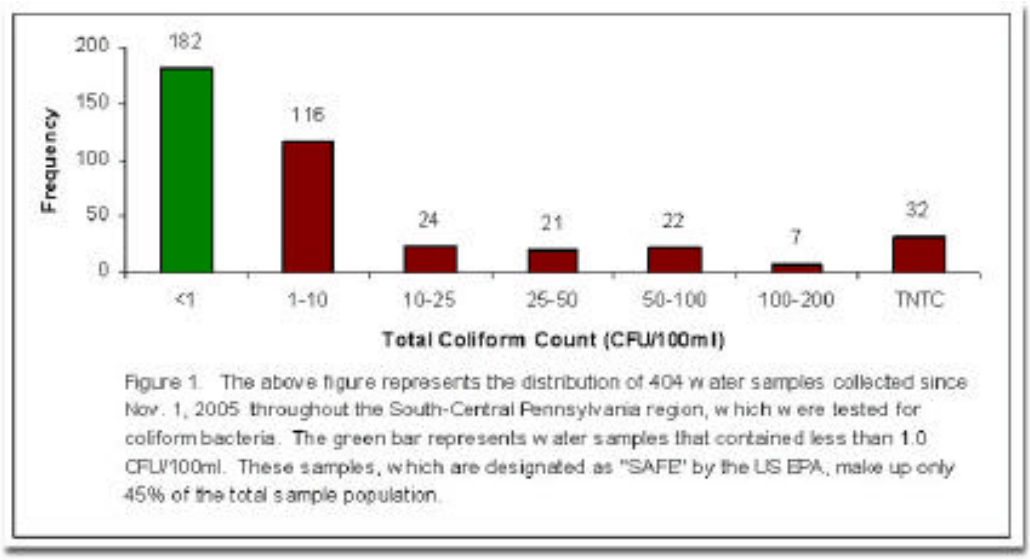

Figure 1. The above figure represents the distribution of 404 water samples collected since Nov. 1, 2005 throughout the South-Central Pennsylvania region, which were tested for coliform bacteria. The green bar represents water samples that contained less than 1.0 CFU/100ml. These samples, which are designated as "SAFE" by the US EPA, make up only 45% of the total sample population.

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