

*BACTERIAL QUALITY

Water for animal consumption must contain no coliform bacteria for calves, and coliform count should be under 10 per 100 milliliters for adult cattle. Bacterial polluted water may increase susceptibility or contribute to a variety of calf and cow disease problems. Drinking bowls, cups and troughs (tanks) should be kept relatively clean.

*CHECKING WATER QUALITY

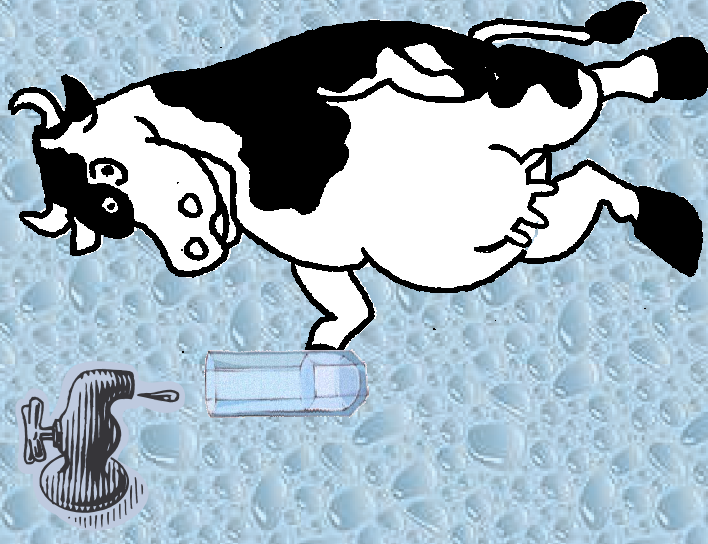
The water supply for cattle should be checked yearly for coliforms, pH, nitrate and nitrites, and total bacteria - especially if a water quality problem is suspected. Many commercial laboratories offer water testing services. To obtain information about where water can be tested, contact your local Extension Office. Expected levels for common water quality tests and possible cattle problems are given in the table below:

***Table III. Analysis of Water Supplies**

Item	Expected	Possible Cattle Problems
Dissolved solids	500 or less ppm	Over 3,000 ppm
Sulfate	0-250 ppm	Over 2,000 ppm
Iron	0-0.3 ppm	Over .3 (taste) ppm
Manganese	0-0.05 ppm	Over .05 (taste) ppm
Arsenic	0.05 ppm	Over .20 ppm
Nitrate as NO ₃	0-10 ppm	Over 100 ppm
Hydrogen sulfide	0-2 ppm	Over .1 (taste) ppm
Total bacterial/100ml	under 200 ppm	Over 1 million ppm
Total coliform/100ml	less than 1 ppm	Over 1 for calves ppm
Total coliform/100ml	less than 15 ppm	Over 15 to 50 for cows ppm

***NEBGUIDE**
University of Nebraska Lincoln
10/12/2005

HAPPY COWS DRINK GOOD WATER



HYDROGEN PEROXIDE TREATMENT SYSTEM



Oxy Star

WATER TREATMENT

- ▶ MEDA offers two 35% Hydrogen Peroxide options. One is a Technical Grade and one is a Food Grade. The Food Grade is recommended for all applications that involve potable water supplies.
- ▶ MEDA recommends that "Parts per million" (PPM) tests be done with an approved chemical test kit. There should be a monthly record of PPM.
- ▶ The end user is liable for the application and concentration of the hydrogen peroxide. Our dealers are supplied with approved test kits and are trained on their use. It's up to the end user to choose the grade and it's up to the end user and the dealer to make sure the system is set properly.
- ▶ Water conditions change, it's very important to have the system checked monthly.

Ask your MEDA dealer for information on the OxyStar Water Treatment System

*Oxy-Star is a Registered Trademark of MEDA Inc. 8/15/05



S12274 LIEGEL COURT
 SPRING, GREEN, WI 53588

Oxidation

↓ hydrate
precipitation

OXIDIZE YOUR WATER

OXIDATION is an electro-chemical reaction that changes the compound's form.

OXIDIZE



OXIDIZE



OXIDIZE

√ ARSENIC

OXIDIZE

√ SULFIDES (Open Control)



CONTROL MICROBIAL GROWTH

HYDROGEN PEROXIDE

is a very effective and safe way to clean up your cows' water. Control microbial growth and slime that challenge your cows' health.

Eliminate the water contaminants that affect your cows water consumption. Make your water taste GOOD.

Water consumption is directly related to your cows milk production. It's nice to know your cows have good clean water to drink.

Oxy Star

WATER TREATMENT

Did you know?

- ▶ Cows have taste buds
- ▶ 1 gallon of water weighs 8.337 pounds
- ▶ Lactating cows required 4½ to 5 pounds of water per pound of milk
- ▶ A cow producing 100 pounds of milk could consume 50 gallons or 416 pounds of water from all sources - drinking and ration moisture
- ▶ Drinking rates for cows in a British study ranged from 10 to 30 pounds per minute
- ▶ Calves ingesting high levels of magnesium have a higher incidence of kidney and bladder stones
- ▶ Possible causes of inadequate water intake metallic taste from Iron Hydrogen sulfide (rotten egg odor) Magnesium (125 ppm +) & sulfates (250 ppm +) may be laxative - causing a potential loss of needed water

Providing an adequate supply of fresh, clean water is one of the most essential feeding practices for both cow and calf performance.