

Water Vital for Livestock During Droughts

Livestock producers need to make sure they have enough water for their animals as western and central North Dakota go into another dry season, according to North Dakota State University Extension Service water quality associate Roxanne Johnson.

“Keep in mind that water requirements may double during hot weather,” she says.

Greg Lardy, NDSU Extension beef cattle specialist, says the amount of water livestock need depends on the conditions and type of animal.

The general estimates of daily water intake for beef cattle at 88 degrees Fahrenheit are:

- * Cows – 16.5 gallons for nursing calves; 14 gallons for bred dry cows and heifers
- * Bulls - 18 gallons
- * Growing cattle - 9 gallons for a 400-pound animal; 12 gallons for a 600-pound animal; 14 gallons for an 800-pound animal
- * Finishing cattle - 14 gallons for a 600-pound animal; 17 gallons for an 800-pound animal; 20 gallons for a 1,000-pound animal; 22.5 gallons for a 1,200-pound animal

Estimates of daily water intake for dairy cattle at 80 F are:

- * Dry cows (for maintenance and pregnancy) - 16.2 gallons for a 1,400-pound animal; 17.3 gallons for a 1,700-pound animal
- * Lactating 1,400-pound cows (for maintenance and milk production) - 17.9 gallons for 20 pounds of milk production; 24.7 gallons for 60 pounds of milk production; 38.7 gallons for 80 pounds of milk production; 45.7 gallons for 100 pounds of milk production.
- * Heifers (for maintenance and pregnancy) - 3.3 gallons for a 200-pound animal; 6.1 gallons for a 400-pound animal; 10.6 gallons for an 800-pound animal; 14.5 gallons for a 1,200-pound animal

For more information on livestock water intake, visit the NDSU Web site at www.ag.ndsu.edu/pubs/ansci/livestoc/as954w.htm.

“Good-quality water can have a major impact on your cattle’s intake and weight gain,” Johnson says. “Canadian studies have shown the quality of water accessible to

livestock is directly tied to the amount of forage they consume. Take time now to develop quality water sources that will improve palatability and increase water intakes.”

Many areas still exist where producers can develop springs and seeps. Any such water source, however small, is vital in a drought year and should prove helpful even in normal years. Johnson suggests that if possible, store the water in a larger tank and then pipe it to one or more troughs.

“This way, you’ll increase the usability of even a very slow-flowing spring or seep,” she says. “A flow of one-half gallon per minute amounts to 720 gallons per day.”

Other options producers should evaluate at this time include shallow pipelines or high-density polyethylene (HDP) pipe on the ground’s surface to bring water from wells, rural water sources or water hauled in from elsewhere.

Shallow pipelines, while expensive initially, will prove useful for many years. Using HDP pipe on the surface simplifies installation and repairs and allows producers to move tanks more easily if necessary.

For more information on HDP pipe costs and installation, contact Johnson at (701) 231-8926 or roxanne.m.johnson@ndsu.edu.

Dugouts should be fenced to restrict livestock’s direct access to the water. The water then can be piped to a trough. This will increase the water’s palatability and reduce nutrients in the water. Increased nutrients have a direct impact on the growth of certain species of blue-green algae, which have the potential to be toxic.

In many instances, dugouts and dams have been dry since last fall. Lack of moisture during the winter and spring has left producers in many parts of the state at a near-critical state. Johnson recommends producers in those areas investigate rural water options.

Rachelle Weiler, assistant marketing coordinator at Southwest Water Authority in Dickinson, says she has seen a large increase in producers installing pasture tap connections this year.

Expenses for materials that rural water associations supply for the connection run from \$1,700 to \$2,000. Producers then must provide labor, pipe, troughs and other supplies to transfer water from the rural water source to their tank.

Annual water rates are \$236.70 for up to 12,000 gallons. Rural water systems may offer reduced rates for higher volumes of water.

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