

# Fences Can Help Protect Water Quality

FAYETTEVILLE, ARK.

**W**ith the memory of last year's crushing drought still fresh, cattle producers may focus more on water quantity than water quality, but poor water quality can be as much of a killer as no water at all.

"Water quality is an often overlooked factor in cattle management," said Dirk Philipp, an assistant professor with the University of Arkansas System Division of Agriculture. "Water quality can affect animal health, grazing distribution and forage management."

Of course, water quantity is still important, especially in the summer. Philipp said that as a rule of thumb, cattle will consume a gallon of water per pound of dry matter consumed. When the temperatures hit 90 degrees or more, 30 gallons a day are needed for a single animal.

Ponds are often the chief water source for cattle, but Philipp said in the long term, better options are needed. Among the dangers of ponds:

- In ponds, bacteria or other pathogens can contaminate runoff

- Parasites may infest ponds and puddles
- Hoof softening can occur from lingering in ponds, resulting in infections

- High nitrate, sulfate or saline levels.

There are other concerns too. For example,

leptospirosis can affect milk yields and liver flukes can lower fertility, cause liver damage and slow growth. Other infections, such as coccidiosis, which can cause weight loss and possible death and giardiasis, which can cause severe diarrhea "can result in severe production losses," he said.

Constant traffic from cattle can also mean erosion of banks, increased sediment, destruction of bank vegetation that can serve as a buffer, destruction of fish habitat in the pond and an overall reduction in the life of the pond.

Floating fences are one means of reducing threats to cattle health from reduced water quality, as well as limiting damage to the pond's structure due to cattle traffic, Philipp said.

Cattle producers will need enough PVC pipe to build a fence about 20 feet from shore. The access area should be covered with gravel and underlain with some kind of geotextile or landscape fabric to ensure stability. "This will surface will keep cattle from socializing," he said.

The rest of the pond shore would be fenced and the estimated cost would be about \$500.

"Other options include piping water through pond walls to tire tanks or other storage devices," Philipp said. △



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