

# MISSOURI RURALIST

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## Demand for water escalates

By JOANN PIPKIN and JERILYN JOHNSON

**G**REENE County beef producer M.D. "Mac" Bonebrake worries about water. Like all producers, he depends on a good, clean source of water to nourish his livestock.

The 2006 drought still weighs heavily on producers' minds. Explosive population growth in previously rural areas of Missouri compounds the problem. Then there is the growing water usage by new coal power plants and biofuels facilities for the growing population's energy needs. It takes 3 to 8 gallons of water to produce 1 gallon of ethanol.

These trends give producers plenty of competition for water and plenty of concern for the future.

Nationally, the production livestock industry takes very little water, says Bob Broz, University of Missouri Water Quality Program director. According to the USDA Sustainable Agriculture Research and Education program, agriculture accounts for about 85% of U.S. water consumption, but most of that goes for cropland irrigation. Livestock accounts for only 1% of freshwater usage, reports a USDA survey conducted in the top 22 livestock production states in 2000.

Yet in Missouri, cattle, swine and poultry broiler production put the natural resource to the

### Key Points

- State producers face growing competition for water.
- Livestock production and processing takes ample water.
- Conservation practices help preserve water quality.

test. When all of the elements of production and processing are added in, the amount of water needed is dramatically increased, Broz says.

Consider the poultry industry alone. "We need 1,200 gallons of water for every 1,000 pounds of live weight processed," Broz explains. "So, for every processing plant, we start seeing a tremendous need for water quantity."

### Protect water quality

In addition to supply issues, water quality is a concern. If you have livestock or poultry, you also have their waste. Generally high in nutrients, manure doesn't pose much of a problem if properly dispersed. However, if not taken care of, the nutrients from that manure — and in some cases bacteria — can make their way into surface and groundwater supplies.

Bonebrake and his family want to ensure their cattle aren't a potential pollution source. Working closely with the Greene County Natural Resources Conservation Service, Bonebrake has established a riparian forest buffer and a Management-intensive



JOANN PIPKIN/INPHO

**STREAM SAVER:** By limiting his cattle's access to Pearson Creek, which runs through his Greene County farm, M.D. Bonebrake works to keep the stream flowing with fresh, clean water.

Grazing system on his 300-acre farm just east of Springfield along Pearson Creek.

His goal is twofold: First, he wants to improve the water quality in Pearson Creek. Second, fencing the stream enhances public perception; Bonebrake felt it was better to complete the job on his own accord rather than waiting until someone told him he had to.

Mark Green, NRCS district conservationist, worked with Bonebrake on the project.

"The mission was to maintain and improve the water quality of the stream, improve forage production for the livestock, improve ground cover on pastures to protect the soil and reduce runoff," Green explains.

The project also preserves the woodland areas by excluding livestock and improving timber stands.

Fencing off the stream prevents Bonebrake's cattle from congregating and defecating in the water. While the livestock currently have limited access for drinking, he plans to further limit that by installing water lines and directing the water to tanks in his grazing paddocks.

Keeping cattle out of streams prevents some stream-bank erosion problems and improves water quality, Green points out.

*Pipkin writes from Republic.*

■ Read more about Missouri's water issues on Pages 4-5.

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