

New Or Expanding Livestock Operations Need To Assess Water Needs

COLUMBIA, MO.

Producers who plan to start or expand a livestock operation need to think about water before moving forward.

“Water is one of the critical natural resources needed for a livestock operation,” said Joe Zulovich, University of Missouri Extension agricultural engineer. “I’ve run into more cases than I care to think about where water was an afterthought rather than something built into the preplanning phases of putting an operation together.”

There are three main uses of water in a livestock operation: drinking water, cooling systems and washing of equipment and buildings. Zulovich says the needs vary significantly among the major species of swine, beef and dairy animals.

“In a swine operation, the drinking water is a primary need,” he said. For the breeding herd, hogs being finished and during gestation, drinking water is usually the biggest need. During farrowing, however, that may not be the case.

“While sows are nursing their litter, we are typically looking at eight gallons of drinking water per head per day,” Zulovich said. “The supplemental cooling where you have the dripper on the sow in the farrowing stall could eas-

ily reach 15 to 20 or even 25 gallons per head per day.”

Typically, beef cattle, sheep and goats aren’t cooled with water, requiring only drinking water. Dairy operations, however, need water for drinking, cooling and washing equipment.

“In the dairy parlor/milking center, wash water is typically 50 to 60 gallons per cow per day to keep all the equipment clean to food-grade levels,” Zulovich said. “Normal drinking water would be somewhere between 35 to 50 gallons, although in hot weather that can double. Use of sprinklers to cool the lactating herd adds another 10 to 15 gallons per cow per day.”

Potential water sources are groundwater reached through a well, surface water impoundment or public water supply. Producers need to choose a water source that can meet their operation’s daily use requirements during peak demand. Producers also need to determine if the quality of the water will meet their needs or, if not, whether the water can be filtered or treated to bring it to the quality needed.

Once those issues are dealt with, Zulovich said, finding what water distribution system to use to bring water from the source to the operation can begin. Δ