Stock Solution Management

Water Line Best Practice Series

Iowa Pork Industry Center and Swine Medicine Education Center, Iowa State University

Key Takeaway: Properly prepared stock solution assists treatments to work as intended, reduce waste, and protect animal health.

Stock Solution and Why Proper Management Matters

A stock solution is a concentrated mixture of medications or vaccines that is combined with water before it enters the water medicator. The medicator takes the mixture and dilutes it into the water supply at a specific ratio. Proper management of this stock solution directly impacts animal health. When the stock solution is too weak or too concentrated, pigs may receive too little or too much medication, leading to treatment failure or wasted product. Poor mixing can impact medicators, leaving medicators, filters, or water lines clogged.

Mixing and Administering Stock Solution

Before mixing the stock solution, prepare the needed supplies. Begin with a clean stock solution bucket or use a disposable liner. Verify these items:

- the correct product
- the correct dose
- the correct dilution instructions
- the treatment label
- any veterinary directions
- and a recent estimate of the barn's 24-hour water consumption

Once verified, calculate how much stock solution is needed to medicate the barn. Fill the container halfway with clean water, add the required medication, and stir thoroughly until it is completely dissolved before filling the container to the final volume with clean water. Add a stir pump in order to keep some products mixed into the solution. Prepare a fresh stock solution every 12 to 24 hours. Do not mix multiple medications unless directed by a herd veterinarian.

After Treatment

After treatment, clean the medicator system. Thoroughly wash the stock solution bucket or remove the disposable liner and discard it properly. Run fresh water through the medicator to flush out any medication left behind for about 30 minutes or 5 gallons. Once flushing is complete, switch the system back to the normal fresh water supply. Ensure that fresh water is flowing into the drinkers in the pens.

Watch video here: