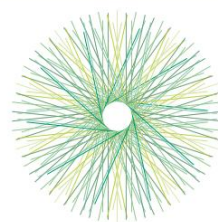


Ensure water quality, proper monitoring and appropriate water system



Water quality plays a crucial role in broiler health, performance, and welfare. Poor water can contribute to locomotor disorders, mineral imbalances, and increased pathogen risk. Ensuring optimal water management involves regular monitoring of chemical and microbiological parameters (pH, hardness, iron, coliforms), systematic cleaning of water lines, and adapting treatment protocols accordingly. This factsheet presents a farmer's example of an effective water treatment protocol. On his farm, he uses alkaline public network water (pH 7.5–8), which is treated through an electrolysis-based chlorination system (Windwest) and acidified using two acids (ACIDU Perf' and ACIDU Plus). The system is shared between two barns, each equipped with two acid pumps. His goal is to lower the water pH to 3.6, following a strict batch protocol involving daily acid dosing. Microbiological and chemical water testing is conducted annually at the outlet of the water lines. The initial investment includes €10,000 for the electrolysis equipment and €2,800 for the acid pumps. Operating costs amount to €8,400 per year for acid, plus €440 for maintenance and supplies. The farmer reports significant improvements: reduced antibiotic use, better feed conversion, improved litter and footpad condition, and no observed enterococci or lameness. The system provides an economic gain of €1/m²/batch, with a return on investment in just 2 years. Alternating acids is recommended to target both Gram-positive and Gram-negative bacteria while maintaining water intake. Care must be taken not to combine acids with antibiotics or certain disinfectants. The system requires about 30 minutes of additional work per batch and close monitoring of potential wear on copper components and pressure regulator membranes due to low pH. This integrated water management approach is a practical and replicable method to enhance broiler health, reduce antibiotic use, and improve overall farm performance.

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