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orthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION – OCTOBER 2007

WILL THERE BE ENOUGH WATER FOR PROCESSING?

With recent deficits in rainfall in the Southeastern US, the continued availability of potable water (municipal sources or from private wells) has become a major concern for the poultry industry. Water is a critical resource (and an indispensable raw material) for the processing phase where it is used in diverse processes ranging from a medium of heat transfer (i.e., scalding, chilling, and ice manufacturing) to food safety and quality assurance (i.e., cleaning and sanitation).

Typically it takes about 5-10 gal of water is used to process a broiler chicken. However, it has been accomplished with as low as 3.5 gal per bird. Most of the water is used in evisceration (40-45%), scalding (20-25%), and in cleaning/sanitation (20-25%). Before a water conservation program can be initiated, a plant water-use audit is warranted. This audit involves installing water meters and determining sites/processes where the water is being used over a 24 h period (production shifts, cleanup and down-time). Initially, water use should be charted, preferably by the hour, to determine water use patterns and to detect potential water leaks. Unnoticed water leaks (including those during down-times and on weekends) of 10-15 gal/min can cost thousands of dollars over a year.

Water conservation efforts must be driven by upper management as a long-term commitment, elevated in importance equal to other economically important metrics such as plant yield and worker safety. A water conservation team with diverse representation from the various departments in the plant should be formed to coordinate and to facilitate the conservation efforts. Conservation approaches such as dry cleaning, installation of low volume/high pressure washers and CIP systems, and water reuse/recycling have been extremely effective. We must do our best to conserve this precious natural resource for the continued success of our industry.

DID YOU KNOW?

71% of earth's surface is water:
97% oceans, seas
2% in aquifers
2.4% in glaciers/polar ice caps
0.6% in rivers and lakes
0.001% water vapor (clouds)



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