Use #12: SWINE

EfferSan™

# The Ultimate Multi-Purpose Disinfectant

## Dr. M.D. Salman, College of Veterinary Medicine' Colorado State University: Summary Results on Effersan vs. Quaternary Ammonia Efficacy Studies for use in Confinement Swine Operations.

Dr. M.D. Salman, BVMS, PhD, Dipl. ACPVM, F.A.C.E. Professor of Veteninary Epidemiology, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado reported the following results from a recently concluded study conducted on a large, nationally prominent, confinement hog operation in northeast Colorado:

**1 . Study design.**

**a.** The products used in the comparative trial were the farm's currently used quaternary ammonia product and Eflersan multipurpose, concentrated sanitizer.

**b.** An equal number of swabs were taken from each production unit. The two products were used in each unit but in two different locations. The procedure for applying the disinfectant was the same (sprayed) for the two products. Swabs were taken from the same locations
(six areas on each crate) in each production unit.

**c.** The two products were randomly assigned to the units being disinfected.

**d.** Swab samples were taken after the use of one of the two disinfectants from the following production time intervals: Non-sanitized/clean farrowing crates (time period 1); Sanitized farrowing crates (time period 2); and 18-20 post sanitation of the farrowing crates (time period 3). Three replicates from each of these time intervals were obtained for each production unit.

**e.** Reduction in the number of bacterinal colonies per plate (CPC) between each two periods were then calculated. There are three comparisons for these reductions between the two products: Periods 1&2; 1&3; and 2&3.

**f.** Eleven production units were considered in the trial. A total of 18 swabs, which were divided equally between the two products, were taken from each unit.

**g.** The two products were evaluated for their performance by comparing the number of colonies per gram that were collected at three time periods: at the initial

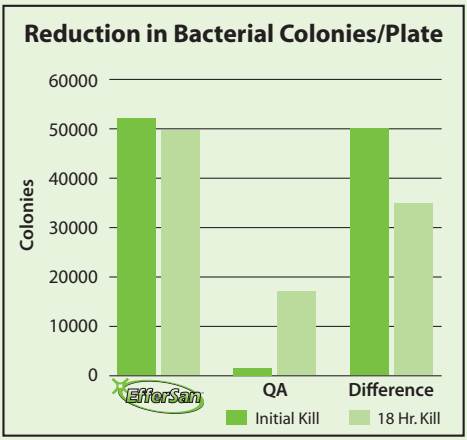
sampling (period 1); after sanitizing (period 2); and at 1820 hours post sanitizing (period 3). The difference in the reduction of the bacterial forming colonies between Effersan and quaternary ammonia (QA) for each of these time intervals was calculated.

**2. Results discussed.**

On the average there were 49920 fewer colonies on the areas treated with Effersan than those treated with quaternary ammonia for the interval of Periods 1&2. The difference is statistically significant at P< 0.05 and is the highest among the three time intervals. It indicates that Effersan is more effecb've in reducing bbe number of bacteria in bbe contaminated areas than quaternary ammonia.

On the average there were 33811 fewer colonies on the areas treated with Effersan than those treated with quaternary ammonia for the interval of Periods 1&3. The difference is statistically significant at P< 0.05.

On the average there were 381 fewer colonies on the areas treated with Effersan than those treated with quaternary ammonia for the interval of Periods 2&3. Although the difference is not statistically significant, (P< 0.09) the reduction was in favor of Effersan.




The above chart indicates the tremendous initial killpower of Effersan (nearly 30 times more) as compared to quaternary ammonia. Even after 18 to 20 hours, Effersan killed more than 3 times the bacteria colonies than those reduced by quaternary ammonia. The data clearly shows that Effersan should be the product of choice for sanitizing in today's quality control conscious operations.

Effersan is EPA and USDA approved for use in sanitizing food and milk processing equipment; poultry, hog and beef packing plants, hog production facilities, as well as multipurpose uses in the animal health field. The effectiveness and safety of Effersan is proven and economical.