Worthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION – JUNE 2004

THE LOG SCALE (pH example)

The log (short for logarithm) is the power to which 10 is raised (or power of 10) in order to obtain the number. Example: log (1)=0 (because 10^0 =1), log(100)=2 (because 10^2=100), log(1000)=3 (because 10^3 =1000) and so on. The pH, which refers to the H^+

H^+ concentration	pH	Examples
10,000,000	0	Battery acid
1,000,000	1	Stomach acid
100,000	2	Lemon juice
10,000	3	Orange juice
1,000	4	Tomato juice
100	5	Black coffee
10	6	Saliva
1	7	Distilled water
0.1	8	Sea water
0.01	9	Baking soda
0.001	10	Milk of Magnesia
0.0001	11	Ammonia
0.00001	12	Soapy water
0.000001	13	Bleach
0.0000001	14	Drain cleaner

concentration relative to distilled water (pH=7 or neutral), is expressed on a log scale that ranges from 0 (very acid) to 14 (very alkaline). It is important to remember that a one unit change in the pH scale corresponds to 10 fold change in H^+ and corresponding acidity or alkalinity. Watch that black coffee (100 times more acid than distilled water)…

Contact: S. F. Bilgili, Ph.D. Phone: (334) 844-2612
E-mail: sbilgili@acesag.auburn.edu

Poultry Science Department, Auburn University, Auburn, AL 36849-5416
www.ag.auburn.edu/dept/ph/