Calculations Table for the Lactic Acid/Peroxyacetic Acid Wash Experiments FSIS C -28-2003 & C-29-2003

Revised August 24, 2005

1 gal = 10 hogs

LACTIC ACID (88% food grade)					PEROXYACETIC ACID (95% food grade)				
Concentration/ Container Size	List price	Cost per unit (oz)	Cost per gallon of acid concentrat e	Mixed Solution (cost per gallon)	Concentration/ Container Size	List price	Cost per unit (mL		Mixed Solution (cost per gallon)
500 mL (Fisher) (16.907 oz)	\$108.27	\$6.4039	\$819.69	\$32.7877	50 gal Inspexx 100 (Ecolab list)	\$1,336.10	\$0.00706	\$26.72	\$0.02824
50 gal. (Central Florida Chemical) (6400 oz)	\$800.00	\$0.1250	\$16.00	\$0.6400	300 gal Inspexx 100 (Ecolab list)	\$8,334.90	\$0.00734	\$27.78	\$0.02936
COST PER ANIM (calculated using the									
Lactic Acid (2%) Standard solution mix = 5.12 oz in 2 gal H ₂ O (120°F)					Peroxyacetic Acid (180-200 ppm) Standard solution mix = 8 mL in 2 gal H ₂ O (120°F)				
1 gal = 250 quail		cost per bird = \$0.00256		1 gal = 250 quail	cost	ber bird = \$0.00011			

1 gal = 10 hogs

cost per hog carcass = | \$0.00282

\$0.00565

1 gal = 5 beefcost per beef carcass =\$0.128001 gal = 5 beefcost per beef carcass =Conversion rates used:128 oz = 1 gal; 3785.4 mL/gal. 50 gal = 189,270.589 mL; 50 gal = 6,400 oz

\$0.06400

Measure acid concentrate with 10 mL volumetric pipette. Strength of the wash solutions should be tested with a dissolved solids test meter.

Sources of Lactic Acid and/or Peroxyacetic Acid

Loeffler Chemical Corp. <u>http://www.loefflerchemical.com/commodity_chemicals.htm</u> (LA & PAA) Chemical Register <u>www.chemicalregister.com</u> - lists supplier with link to get price quote (LA & PAA) Ecolab - Inspexx 100 <u>www.ecolab.com</u> - proprietary peroxyacetic acid formula IFT Food Buyer's Guide - <u>http://buyersguide.ift.org</u> Purac <u>www.purac.com</u> (LA)

cost per hog carcass =