

## Calculations Table for the Lactic Acid/Peroxyacetic Acid Wash Experiments

FSIS C -28-2003 & C-29-2003

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LACTIC ACID (88% food grade)					PEROXYACETIC ACID (95% food grade)				
Concentration/ Container Size	List price	Cost per unit (oz)	Cost per gallon of acid concentrate	Mixed Solution (cost per gallon)	Concentration/ Container Size	List price	Cost per unit (mL)	Cost per gallon of acid concentrate	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
<b>COST PER ANIMAL USING HAND-HELD SPRAYER WITH FAN NOZZLE</b> (calculated using the price for solution made with 50 gal. size of acid concentrate)									
<b>Lactic Acid (2%)</b> Standard solution mix = 5.12 oz in 2 gal H <sub>2</sub> O (120°F)					<b>Peroxyacetic Acid (180-200 ppm)</b> Standard solution mix = 8 mL in 2 gal H <sub>2</sub> O (120°F)				
1 gal = 250 quail	cost per bird =		\$0.00256		1 gal = 250 quail	cost per bird =		\$0.00011	
1 gal = 10 hogs	cost per hog carcass =		\$0.06400		1 gal = 10 hogs	cost per hog carcass =		\$0.00282	
1 gal = 5 beef	cost per beef carcass =		\$0.12800		1 gal = 5 beef	cost per beef carcass =		\$0.00565	

Conversion rates used: 128 oz = 1 gal; 3785.4 mL/gal. 50 gal = 189,270.589 mL; 50 gal = 6,400 oz

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. [http://www.loefflerchemical.com/commodity\\_chemicals.htm](http://www.loefflerchemical.com/commodity_chemicals.htm) (LA & PAA)

Chemical Register [www.chemicalregister.com](http://www.chemicalregister.com) - lists supplier with link to get price quote (LA & PAA)

Ecolab - Inspexx 100 [www.ecolab.com](http://www.ecolab.com) - proprietary peroxyacetic acid formula

IFT Food Buyer's Guide - <http://buyersguide.ift.org>

Purac [www.purac.com](http://www.purac.com) (LA)