

BAMA

SEA PRODUCTS

Patricia

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Here are the initial results from my shelf-life extension experiment using CitroBio that you requested. Remember that for each day, Trial 1 represents Florida red grouper (*Epinephalus morio*) treated with CitroBio (recommended concentration; 10 minute soak); Trial 2 represents red grouper treated with plain tap H₂O (control); Trial 3 is Key West pinks (*Penaeus duodarum*) treated with CitroBio; Trial 4 is pinks treated with H₂O (control). Within these trials, each successive swab is a 10% dilution of the one before.

<u>Day 1 (instantaneous)</u>		<u>Day 2 (after 24 hrs.)</u>		<u>Day 3 (after 48 hrs.)</u>	
	APC		APC		APC
Trial 1, Swab 1	204	Trial 1, Swab 1	220	Trial 1, Swab 1	320
Trial 1, Swab 2	40	Trial 1, Swab 2	58	Trial 1, Swab 2	60
Trial 1, Swab 3	4	Trial 1, Swab 3	8	Trial 1, Swab 3	8
Trial 1, Swab 4	4				
Trial 2, Swab 1	720	Trial 2, Swab 1	488	Trial 2, Swab 1	960
Trial 2, Swab 2	312	Trial 2, Swab 2	100	Trial 2, Swab 2	236
Trial 2, Swab 3	52	Trial 2, Swab 3	12	Trial 2, Swab 3	32
Trial 2, Swab 4	6				
Trial 3, Swab 1	17	Trial 3, Swab 1	8	Trial 3, Swab 1	5
Trial 3, Swab 2	11	Trial 3, Swab 2	1	Trial 3, Swab 2	0
Trial 3, Swab 3	0	Trial 3, Swab 3	1	Trial 3, Swab 3	0
Trial 3, Swab 4	0				
Trial 4, Swab 1	102	Trial 4, Swab 1	268	Trial 4, Swab 1	43
Trial 4, Swab 2	25	Trial 4, Swab 2	50	Trial 4, Swab 2	16
Trial 4, Swab 3	4	Trial 4, Swab 3	10	Trial 4, Swab 3	0
Trial 4, Swab 4	0				

Remember also that the 48 hr. numbers were read a little early (5 hrs to be exact) so that I could show them to you when we met. That probably explains why total counts go down from 24 hrs.

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 Bama Sea Products
 12/14/00

Grouper	Day 1 (instantaneous)		Day 2 After 24 hrs.		Day 3 After 48 hrs.	
	Citrobio	Water	Citrobio	Water	Citrobio	Water
	APC	APC	APC	APC	APC	APC
Dilution						
100% Swab 1	204	720	220	488	320	960
10% Swab 2	40	312	58	100	60	236
1% Swab 3	4	52	8	12	8	32
0.01% Swab 4	4	6				

Shrimp	Day 1 (instantaneous)		Day 2 After 24 hrs.		Day 3 After 48 hrs.	
	Citrobio	Water	Citrobio	Water	Citrobio	Water
	APC	APC	APC	APC	APC	APC
Dilution						
100% Swab 1	17	102	8	268	5	43
10% Swab 2	11	25	1	50	0	16
1% Swab 3	0	4	1	10	0	0
0.01% Swab 4	0	0				

Note: the 48 hrs numbers were read a little early (5 hrs) due to have to present results to Citrobio representative. Actual 48hour numbers would be expected to be higher.

The test was done using .10 lb of Florida Red Grouper (*Epinephalus morio*) & .10 lb of Key West Pinks (*Penaeus duodarum*) using plain tap H₂O as a control.

Mix .25 oz of 20% Citrobio in 1 gallon of water and let soak for 10 min.

The dilutions are done in order to find a media point where the count of bacteria is either not too small or too big. These serial dilutions thereby allow counting CFUs (Colony Forming Units) from plates with intermediate densities (optimum for accuracy) and allow tracking increasing bacterial loads accurately through time.