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\*

( // : // : )

TC( ) TVN PV /  
/ / meq/1000g TVN PV TVN  
(C<sub>2</sub>) / ×  
PV TVN

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E-mail: asefeh59@yahoo.com

Peroxide value

Total Volatile Nitrogen

Total Count

Organoleptic



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‘ / meq/1000g /

‘ / meq/1000g

°C

‘TVN ,PV

PV TVN

.( )

.( )

( )

.( )

%

meq/1000g

/	/		/	/	S
/		/	/	/	C1 % /
/	/	/	/	/	C2 %

TVN ‘

TVN

TVN

		/	/		S
	/	/	/		C1
/	/	/	/		C2

- °C

( )

x

- °C

( )

x	/ x	x	/ x	x	S
/ x	/ x	/ x	/ x	x	C1
/ x	/ x	x	x	x	C2

‘ )

‘ (

( )

				S
/	/	/		C1
				C2

TC, PV, TVN

<b>F</b>	<b>F</b>				
/	/	/		/	TVN
		/		/	
		/		/	
/	/	/		/	PV
		/		/	
		/		/	
/	/	/ E+		/ E+	TC
				/ E+	

‘ °C ‘  
 ‘ °C ‘  
 °C  
 ‘  
 ( / )  
 ‘ ( / ) ‘  
 ‘  
 ‘ ( ) ‘  
 ‘ ( )



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( )

TVN

( )

( )

( )

E

( )

°C

°C

( )

( )

°C

( )

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Decker et al.

Freeman & Shannon

Hiremath & Sreenivasan

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## Studying the Effect of Citric Acid on Preserving the Quality of Rainbow Trout in Cold Storage

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(Received 9 January 2006, Accepted 16 September 2006)

### Abstract

Antioxidants are the agents used to prevent or retards the deterioration of the materials that tend to be oxidized during storage in refrigerators. In this study we studied the effect of citric acid on preserving the quality of Rainbow Trout in cold storage. Two samples of the fish were dipped in two citric acid solutions with different concentrations – 1.5% and 3% – of for 60 minutes. The control sample was prepared without dipping in the antioxidant. Peroxide value (PV), total volatile nitrogen (TVN), total microbial count (aerobic mesophilic microbes) and organoleptic tests were performed twice in four months. Results showed that the sample containing citric acid (C<sub>2</sub>) had the lowest peroxide value, TVN and microbial load measured 8.4 meq/1000g, 19.7 milligram percent and  $1.5 \times 10^3$ , respectively. The control sample had the highest PV, TVN and microbial load, and the organoleptic test created a more satisfactory result with the sample containing citric acid.

**Keywords:** Antioxidant, Citric acid, Trout, Peroxide value