

	(NS)	(PA)	
control (1)	(NS PA % 0+3)	(NS PA % 1+2)	(NS PA % 3+0)
5	3	3	6
4	.1	.5 3 2	6 (NS PA % 2+1)
			6
.°	3	3	2
9	4	2	
1			.° 28
	.° 37		3
	4		6
	.1	° -	9
° -		()	

EFFECT OF ADDING *Pimpinella Anisum* and *Nigella Sativa* SEEDS ON QUALITY PROPERTIES OF LABORATORY SHORTENED CAKE

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Abstract

The aim of this study was to investigate the effect of addition of *Pimpinella anisum* (PA) and *Nigella sativa* (NS) seeds in different percentages on the physical, sensory and microbial properties of the shortened cake. The results revealed that cake size of treatments 3 (0+3%PA and NS) and 6 (2+1% PA and NS) were significantly larger than that of treatment (1) control. The results of sensory evaluation showed that treatments 2 (1.5+1.5% PA and NS), 3, 4 (3+0%PA and NS), 5 (1+2%PA and NS) and 6 were not significantly higher than the control in the overall acceptance. Treatments 4 and 6 gained higher score of overall acceptance than treatments 2, 3 and 5. Other treatments, however, did not show significant

3 +	0	3
0 +	3	4
2 +	1	5
1 +	2	6

. 12 ° 31-24
 . 9 ° 37

10

Nutrient agar
 (loop)

24 °37 3 15
 48 ° 200
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 1

Statistical

package of social sciences (SPPSS)

[] (1955) Duncan

[21] ()

Standing Height

(p < 0.05)

[] (1975)

(2)

. 2

5 % .

(p < 0.05)

6

3.70 4.19 1

.1 5 4 2 (p < 0.05)

.1 6 3

15

(p < 0.05)

±

1 (3)

[] (1975)

6 4
5 3 2

4
6 5 3 2
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b . ± .	a . ± .	a . ± .	b . ± .	. ± .	% + %
ab . ± .	a . ± .	a . ± .	a . ± .5	0.00± .	% . + % .
a . ± .	a . ± .	a . ± .	a . ± .	0.00± .	% + %
ab . ± .	a . ± .	a . ± .	a . ± .	0.00± .	% + %
ab . ± .	a . ± .	a . ± .	ab 1. ± .	0.00± .	% + %
a . ± .	a . ± .	a . ± .	a . ± .	0.00± .	% + %

:3

					/
a . ± .	a . ± .	. ± . a	a . ± .	. ± . a	% + %
c . ± .	c . ± .	. ± . b	b . ± .	. ± . c	% . + % .
c . ± .	bc . ± .	. ± . b	b . ± .	. ± . d	% + %
b . ± .	ab . ± .	. ± . b	ab . ± .	. ± . b	% + %
c . ± .	bc . ± .	. ± . b	b . ± .	. ± . C	% + %
bc . ± .	abc . ± .	b . ± .	b . ± .	. ± . c	% + %

(p<0.05)

±

15

7

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-	-	-	% + %	

= - =+

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