

LAMPIRAN – LAMPIRAN

LAMPIRAN 1 Data Perhitungan Formulai *Food Bars*

Perlakuan 1 (50% : 50%)

Nama Bahan	%	Jumlah	Energi	Protein	Lemak	KH
Tepung bekatul	19	9.5	42.19045	0.85215	1.50005	6.32035
Tepung Labu kuning	19	9.5	31.4906	0.4788	0.0076	7.37675
Margarine	25	12.5	90	0.075	10.125	0.05
Gula palem	4	2	7.36	0	0	1.84
Telur	12	6	9.24	0.744	0.648	0.042
susu skim	15	7.5	26.925	2.67	0.075	3.9
Kacang tanah	6	3	15.45	0.918	1.263	0.114
Total	100	50	222.65605	5.73795	13.61865	19.6431
Persentase				10.3081861	55.04806629	35.28868854

Perlakuan 2 (40% : 60%)

Nama Bahan	%	Jumlah	Energi	Protein	Lemak	KH
Tepung bekatul	15.2	7.6	33.75236	0.68172	1.20004	5.05628
Tepung Labu kuning	22.8	11.4	37.78872	0.57456	0.00912	8.8521
Margarine	25	12.5	90	0.075	10.125	0.05
Gula palem	4	2	7.36	0	0	1.84
Telur	12	6	9.24	0.744	0.648	0.042
susu skim	15	7.5	26.925	2.67	0.075	3.9
Kacang tanah	6	3	15.45	0.918	1.263	0.114
Total	100	50	220.51608	5.66328	13.32016	19.85438
Persentase				10.27277467	54.36403549	36.01438952



Perlakuan 3 (30% : 70%)

Nama Bahan	%	Jumlah	Energi	Protein	Lemak	KH
Tepung bekatul	11.4	5.7	25.31427	0.51129	0.90003	3.79221
Tepung Labu kuning	26.6	13.3	44.08684	0.67032	0.01064	10.32745
Margarine	25	12.5	90	0.075	10.125	0.05
Gula palem	4	2	7.36	0	0	1.84
Telur	12	6	9.24	0.744	0.648	0.042
susu skim	15	7.5	26.925	2.67	0.075	3.9
Kacang tanah	6	3	15.45	0.918	1.263	0.114
Total	100	50	218.37611	5.58861	13.02167	20.06566
Persentase				10.2366692	53.66659842	36.75431346

Perlakuan 4 (20% : 80%)

Nama Bahan	%	Jumlah	Energi	Protein	Lemak	KH
Tepung bekatul	7.6	3.8	16.87618	0.34086	0.60002	2.52814
Tepung Labu kuning	30.4	15.2	50.38496	0.76608	0.01216	11.8028
Margarine	25	12.5	90	0.075	10.125	0.05
Gula palem	4	2	7.36	0	0	1.84
Telur	12	6	9.24	0.744	0.648	0.042
susu skim	15	7.5	26.925	2.67	0.075	3.9
Kacang tanah	6	3	15.45	0.918	1.263	0.114
Total	100	50	216.23614	5.51394	12.72318	20.27694
Persentase				10.19984911	52.95535705	37.50888265

Perlakuan 5 (10% : 90%)

Nama Bahan	%	Jumlah	Energi	Protein	Lemak	KH
Tepung bekatul	3.8	1.9	8.43809	0.17043	0.30001	1.26407
Tepung Labu kuning	34.2	17.1	56.68308	0.86184	0.01368	13.27815
Margarine	25	12.5	90	0.075	10.125	0.05
Gula palem	4	2	7.36	0	0	1.84
Telur	12	6	9.24	0.744	0.648	0.042
susu skim	15	7.5	26.925	2.67	0.075	3.9
Kacang tanah	6	3	15.45	0.918	1.263	0.114
Total	100	50	214.09617	5.43927	12.42469	20.48822
Persentase				10.16229295	52.22989743	38.27853623

LAMPIRAN 2 Form Etik

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KOMISI ETIK PENELITIAN KESEHATAN
FAKULTAS KEDOKTERAN UNIVERSITAS BRAWIJAYA

KETERANGAN KELAIKAN ETIK
("ETHICAL CLEARANCE")
No. 437/KEPK-S1-GZ/EC/09/2013

KOMISI ETIK PENELITIAN KESEHATAN FAKULTAS KEDOKTERAN UNIVERSITAS BRAWIJAYA, SETELAH MEMPELAJARI DENGAN SEKSAMA RANCANGAN PENELITIAN YANG DIUSULKAN, DENGAN INI MENYATAKAN BAHWA PENELITIAN DENGAN

Judul : Formulasi Makanan Padat (Food Bars) Berbahan Baku Tepung Labu Kuning (Cucurbita moschata) dan Tepung Bekatul Sebagai Alternatif Pangan Darurat
Peneliti Utama : Elvira Febriani Pulungan
NIM : 105070307111003
Unit/Lembaga : Gizi - Kedokteran - Universitas Brawijaya
Tempat Penelitian : Lab penyelenggaraan Makanan FKUB dan Lab THP FTP UB

Maka dengan ini menyatakan bahwa penelitian tersebut telah memenuhi syarat atau laik etik.

Malang, 20 September 2013
An Ketua
Koordinator Divisi I

Prof. Dr. Teguh W. Sardjono, DTM&H, MSc, SpPark
NIP. 19520410 198002 1 001



LAMPIRAN 3 Surat Persetujuan Menjadi Responden**SURAT PERSETUJUAN MENJADI RESPONDEN****(Informed Consent)**

Setelah mendapat penjelasan dengan baik mengenai tujuan dan manfaat penelitian yang berjudul “Formulasi Makanan Padat (Food Bars) Berbahan Baku Tepung Labu Kuning dan Tepung Bekatul Sebagai Alternatif Pangan Darurat”. Saya mengerti bahwa saya akan diminta untuk menjadi panelis dengan mengisi form uji organoleptik untuk menilai produk *Food bars* yang terbuat dari tepung labu kuning dan tepung bekatul.

Saya mengerti bahwa catatan mengenai data penelitian ini akan dirahasiakan dan kerahasiaan ini akan dijamin. Informasi mengenai identitas saya tidak akan ditulis pada instrumen penelitian dan akan disimpan secara terpisah.

Saya mengerti bahwa saya berhak menolak untuk berperan serta dalam penelitian ini atau mengundurkan diri dari penelitian setiap saat tanpa adanya sanksi atau kehilangan hak – hak saya.

Saya telah diberi kesempatan untuk bertanya mengenai penelitian ini atau mengenai peran saya dalam penelitian ini, dan telah dijawab serta dijelaskan secara terperinci. Saya secara sukarela dan sadar bersedia berperan dalam penelitian ini dengan menandatangani Surat Persetujuan Menjadi Responden.

Saksi 1 : Malang,2014

(.....)

Responden

Saksi 2 :

(.....)

(.....)

LAMPIRAN 4 Kuesioner Uji Hedonik**UJI HEDONIK RASA, AROMA, TEKSTUR DAN WARNA**

Produk : Makanan Padat (Food Bars) Berbahan Baku Tepung Labu Kuning dan Tepung Bekatul

Nama Panelis:

Tanggal :

Tanda tangan:

Petunjuk :

1. Cicipi sample dari kiri ke kanan
2. Nyatakan penilaian anda dan beri tanda \surd pada pernyataan yang sesuai dengan penilaian anda
3. **Jangan membandingkan antar sampel**

PENILAIAN	SAMPEL					
RASA						
AROMA						
TEKSTUR						
WARNA						

Keterangan :

Skor 1 : sangat tidak suka

Skor 2 : tidak suka

Skor 3 : agak tidak suka

Skor 4 : agak suka

Skor 5 : suka

Skor 6 : sangat suka

LAMPIRAN 5 Hasil laboratorium THP



LABORATORIUM PENGUJIAN MUTU dan KEAMANAN PANGAN
(Testing Laboratory of Food Quality and Food Safety)
JURUSAN TEKNOLOGI HASIL PERTANIAN
FAKULTAS TEKNOLOGI PERTANIAN
UNIVERSITAS BRAWIJAYA

Jl. Veteran, Malang 65145, Telp/Fax. (0341) 573358

E-mail : labujipangan_thpub@yahoo.com

KEPADA : Elvira Febriani
 TO FK - UB
 MALANG

LAPORAN HASIL UJI
 REPORT OF ANALYSIS

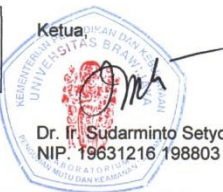
Nomor / Number : 4224/THP/LAB/2014
 Nomor Analisis / Analysis Number : 4224
 Tanggal penerbitan / Date of issue : 26 Januari 2014

Yang bertanda tangan di bawah ini menerangkan, bahwa hasil pengujian
 The undersigned ratifies that examination
 Dari contoh / of the sample (s) of : Foodbars Tepung bekatul & Tepung -
 Labu Kuning

Untuk analisis / For analysis :
 Keterangan contoh / Description of sample :
 Diambil dari / Taken from : -
 Oleh / By : -
 Tanggal penerimaan contoh / Received : 03 Februari 2014
 Tanggal pelaksanaan analisis / Date of analysis : 03 Februari 2014
 Hasil adalah sebagai berikut / Resulted as follows :

Kode	Protein (%)	Lemak (%)	Air (%)	Abu (%)	Karbohidrat (%)
035	13,09	23,64	14,97	3,61	44,69
063	13,88	24,70	12,52	2,66	46,24
091	12,36	24,51	15,23	3,7	44,2
120	12,86	23,53	14,16	3,57	45,88
201	13,05	23,64	13,76	3,73	45,82
267	12,36	24,19	13,91	3,67	45,87
320	12,93	22,4	14,19	3,71	46,77
392	12,08	25,11	12,69	3,66	46,46
408	12,09	23,44	13,85	3,63	46,99
450	12,36	25,14	14,09	3,7	44,71
562	13,16	23,83	13,38	3,72	45,91
576	12,17	23,73	15,47	3,61	45,02
610	12,05	24,74	14,87	3,64	44,7
639	13,43	22,2	14,12	3,7	46,55
694	12,73	25,00	13,32	2,63	46,32
731	13,22	21,68	13,22	2,68	49,2
768	12,68	23,55	14,83	3,7	45,24
794	12,39	23,81	14,88	3,65	45,27
801	12,33	25,03	12,48	3,73	46,43
827	13,44	24,97	13,22	3,63	44,74
895	12,18	24,91	15,53	3,6	43,78
901	12,93	25,12	14,36	3,63	43,96
928	14,19	25,42	12,05	2,66	45,68
946	13,22	24,36	14,39	3,7	44,33

HASIL PENGUJIAN INI HANYA BERLAKU UNTUK CONTOH-CONTOH TERSEBUT DI ATAS. PENGAMBIL CONTOH BERTANGGUNG JAWAB ATAS KEBENARAN TANDING BARANG



Dr. Ir. Sudarminto Setyo Yuwono, M.Sc.
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LAMPIRAN 6 Hasil Analisis SPSS Mutu Zat Gizi Food Bars

1. Analisis SPSS Mutu Zat Gizi Protein

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
hasil persentase kadar protein	.174	24	.059	.934	24	.122

a. Lilliefors Significance Correction

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
hasil persentase kadar protein	Based on Mean	.746	5	18	.599
	Based on Median	.472	5	18	.792
	Based on Median and with adjusted df	.472	5	10.786	.789
	Based on trimmed mean	.698	5	18	.632

ANOVA

hasil persentase kadar protein

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.106	5	.621	2.319	.086
Within Groups	4.821	18	.268		
Total	7.927	23			

2. Analisis SPSS Mutu Zat Gizi Lemak

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.



hasil persentase kadar lemak	.138	24	.200*	.906	24	.029
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a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

		Levene	df1	df2	Sig.
		Statistic			
hasil persentase kadar lemak	Based on Mean	2.528	5	18	.067
	Based on Median	.822	5	18	.550
	Based on Median and with adjusted df	.822	5	6.789	.572
	Based on trimmed mean	2.153	5	18	.105

Test Statistics^{a,b}

	hasil persentase kadar lemak
Chi-Square	8.534
df	5
Asymp. Sig.	.129

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan sampel

3. Analisis SPSS Mutu Zat Gizi Karbohidrat

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
hasil persentase kadar karbohidrat	.100	24	.200*	.933	24	.112

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.



Test of Homogeneity of Variance

		Levene	df1	df2	Sig.
		Statistic			
hasil persentase kadar	Based on Mean	.384	5	18	.853
karbohidrat	Based on Median	.089	5	18	.993
	Based on Median and with adjusted df	.089	5	7.824	.992
	Based on trimmed mean	.322	5	18	.893

ANOVA

hasil persentase kadar karbohidrat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.010	5	1.602	1.148	.372
Within Groups	25.126	18	1.396		
Total	33.136	23			

4. Analisis SPSS Total Energi Food Bars

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
total_energi	.161	24	.107	.941	24	.175

a. Lilliefors Significance Correction

Test of Homogeneity of Variance

		Levene	df1	df2	Sig.
		Statistic			
total_energi	Based on Mean	1.604	5	18	.210
	Based on Median	.674	5	18	.648



Based on Median and with adjusted df	.674	5	7.459	.656
Based on trimmed mean	1.421	5	18	.264

ANOVA

total_energi	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	726.458	5	145.292	4.300	.009
Within Groups	608.218	18	33.790		
Total	1334.676	23			

Multiple Comparisons

total_energi

Tukey HSD

(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0	1	3.75250	4.11035	.938	-9.3103	16.8153
	2	12.91000	4.11035	.054	-.1528	25.9728
	3	7.11250	4.11035	.531	-5.9503	20.1753
	4	15.71750*	4.11035	.013	2.6547	28.7803
	5	12.16500	4.11035	.076	-.8978	25.2278
1	0	-3.75250	4.11035	.938	-16.8153	9.3103
	2	9.15750	4.11035	.273	-3.9053	22.2203
	3	3.36000	4.11035	.960	-9.7028	16.4228
	4	11.96500	4.11035	.084	-1.0978	25.0278
	5	8.41250	4.11035	.356	-4.6503	21.4753
2	0	-12.91000	4.11035	.054	-25.9728	.1528
	1	-9.15750	4.11035	.273	-22.2203	3.9053
	3	-5.79750	4.11035	.721	-18.8603	7.2653
	4	2.80750	4.11035	.982	-10.2553	15.8703



	5	-0.74500	4.11035	1.000	-13.8078	12.3178
3	0	-7.11250	4.11035	.531	-20.1753	5.9503
	1	-3.36000	4.11035	.960	-16.4228	9.7028
	2	5.79750	4.11035	.721	-7.2653	18.8603
	4	8.60500	4.11035	.333	-4.4578	21.6678
	5	5.05250	4.11035	.817	-8.0103	18.1153
4	0	-15.71750*	4.11035	.013	-28.7803	-2.6547
	1	-11.96500	4.11035	.084	-25.0278	1.0978
	2	-2.80750	4.11035	.982	-15.8703	10.2553
	3	-8.60500	4.11035	.333	-21.6678	4.4578
	5	-3.55250	4.11035	.950	-16.6153	9.5103
5	0	-12.16500	4.11035	.076	-25.2278	.8978
	1	-8.41250	4.11035	.356	-21.4753	4.6503
	2	.74500	4.11035	1.000	-12.3178	13.8078
	3	-5.05250	4.11035	.817	-18.1153	8.0103
	4	3.55250	4.11035	.950	-9.5103	16.6153

*. The mean difference is significant at the 0.05 level.



LAMPIRAN 7 Hasil Analisis SPSS Mutu Organoleptik Food Bars

Uji Kruskal Wallis

Ranks

sampel perlakuan		N	Mean Rank
warna sampel	P0	20	55.65
	P1	20	62.10
	P2	20	72.10
	P3	20	56.90
	P4	20	54.75
	P5	20	61.50
	Total	120	
tekstur sampel	P0	20	71.85
	P1	20	63.85
	P2	20	61.22
	P3	20	55.78
	P4	20	60.65
	P5	20	49.65
	Total	120	
cita rasa sampel	P0	20	81.75
	P1	20	72.72
	P2	20	63.00
	P3	20	43.18
	P4	20	45.20
	P5	20	57.15
	Total	120	
aroma sampel	P0	20	83.60
	P1	20	64.40
	P2	20	71.60
	P3	20	50.15
	P4	20	50.00
	P5	20	43.25
	Total	120	

Test Statistics^{a,b}

	warna sampel	tekstur sampel	cita rasa sampel	aroma sampel
Chi-Square	3.883	5.417	20.798	22.074
df	5	5	5	5
Asymp. Sig.	.566	.367	.001	.001

a. Kruskal Wallis Test

b. Grouping Variable: sampel perlakuan

Uji Mann Whitney

- Analisis SPSS Mutu Organoleptik Rasa
- P0 – P1

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P0	20	21.50	430.00
P1	20	19.50	390.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	180.000
Wilcoxon W	390.000
Z	-.564
Asymp. Sig. (2-tailed)	.573
Exact Sig. [2*(1-tailed Sig.)]	.602 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- P0 – P2

Ranks			
sample perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P0	20	24.02	480.50
P2	20	16.98	339.50
Total	40		

Test Statistics ^b	
	cita rasa sampel
Mann-Whitney U	129.500
Wilcoxon W	339.500
Z	-2.008
Asymp. Sig. (2-tailed)	.045
Exact Sig. [2*(1-tailed Sig.)]	.056 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- P0 – P3

Ranks			
sample perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P0	20	27.15	543.00
P3	20	13.85	277.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	67.000
Wilcoxon W	277.000
Z	-3.764
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- P0 – P4

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P0	20	26.52	530.50
P4	20	14.48	289.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	79.500
Wilcoxon W	289.500
Z	-3.390
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.001 ^a

a. Not corrected for ties.



Test Statistics^b

	cita rasa sampel
Mann-Whitney U	79.500
Wilcoxon W	289.500
Z	-3.390
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.001 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P0 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P0	20	24.55	491.00
P5	20	16.45	329.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	119.000
Wilcoxon W	329.000
Z	-2.317
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.028 ^a

a. Not corrected for ties.

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	119.000
Wilcoxon W	329.000
Z	-2.317
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.028 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P1 – P2**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P1	20	22.25	445.00
P2	20	18.75	375.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	165.000
Wilcoxon W	375.000
Z	-.992
Asymp. Sig. (2-tailed)	.321
Exact Sig. [2*(1-tailed Sig.)]	.355 ^a

a. Not corrected for ties.



Test Statistics^b

	cita rasa sampel
Mann-Whitney U	165.000
Wilcoxon W	375.000
Z	-.992
Asymp. Sig. (2-tailed)	.321
Exact Sig. [2*(1-tailed Sig.)]	.355 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P1 – P3**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P1	20	25.08	501.50
P3	20	15.92	318.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	108.500
Wilcoxon W	318.500
Z	-2.641
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.012 ^a

a. Not corrected for ties.

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	108.500
Wilcoxon W	318.500
Z	-2.641
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.012 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- P1 – P4

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P1	20	24.75	495.00
P4	20	16.25	325.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	115.000
Wilcoxon W	325.000
Z	-2.426
Asymp. Sig. (2-tailed)	.015
Exact Sig. [2*(1-tailed Sig.)]	.021 ^a

a. Not corrected for ties.

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	115.000
Wilcoxon W	325.000
Z	-2.426
Asymp. Sig. (2-tailed)	.015
Exact Sig. [2*(1-tailed Sig.)]	.021 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- P1 – P5

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P1	20	23.15	463.00
P5	20	17.85	357.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	147.000
Wilcoxon W	357.000
Z	-1.479
Asymp. Sig. (2-tailed)	.139
Exact Sig. [2*(1-tailed Sig.)]	.157 ^a

a. Not corrected for ties.



Test Statistics^b

	cita rasa sampel
Mann-Whitney U	147.000
Wilcoxon W	357.000
Z	-1.479
Asymp. Sig. (2-tailed)	.139
Exact Sig. [2*(1-tailed Sig.)]	.157 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P2 – P3**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P2	20	24.12	482.50
P3	20	16.88	337.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	127.500
Wilcoxon W	337.500
Z	-2.140
Asymp. Sig. (2-tailed)	.032
Exact Sig. [2*(1-tailed Sig.)]	.049 ^a

a. Not corrected for ties.

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	127.500
Wilcoxon W	337.500
Z	-2.140
Asymp. Sig. (2-tailed)	.032
Exact Sig. [2*(1-tailed Sig.)]	.049 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P2 – P4**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P2	20	23.78	475.50
P4	20	17.22	344.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	134.500
Wilcoxon W	344.500
Z	-1.900
Asymp. Sig. (2-tailed)	.057
Exact Sig. [2*(1-tailed Sig.)]	.076 ^a

a. Not corrected for ties.

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	134.500
Wilcoxon W	344.500
Z	-1.900
Asymp. Sig. (2-tailed)	.057
Exact Sig. [2*(1-tailed Sig.)]	.076 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- **P2 – P5**

Ranks

sample perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P2	20	21.38	427.50
P5	20	19.62	392.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	182.500
Wilcoxon W	392.500
Z	-.497
Asymp. Sig. (2-tailed)	.620
Exact Sig. [2*(1-tailed Sig.)]	.640 ^a

a. Not corrected for ties.



Test Statistics^b

	cita rasa sampel
Mann-Whitney U	182.500
Wilcoxon W	392.500
Z	-.497
Asymp. Sig. (2-tailed)	.620
Exact Sig. [2*(1-tailed Sig.)]	.640 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P3 – P4**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P3	20	20.38	407.50
P4	20	20.62	412.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	197.500
Wilcoxon W	407.500
Z	-.075
Asymp. Sig. (2-tailed)	.940
Exact Sig. [2*(1-tailed Sig.)]	.947 ^a

a. Not corrected for ties.

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	197.500
Wilcoxon W	407.500
Z	-.075
Asymp. Sig. (2-tailed)	.940
Exact Sig. [2*(1-tailed Sig.)]	.947 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P3 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P3	20	18.15	363.00
P5	20	22.85	457.00
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	153.000
Wilcoxon W	363.000
Z	-1.343
Asymp. Sig. (2-tailed)	.179
Exact Sig. [2*(1-tailed Sig.)]	.211 ^a

a. Not corrected for ties.



Test Statistics^b

	cita rasa sampel
Mann-Whitney U	153.000
Wilcoxon W	363.000
Z	-1.343
Asymp. Sig. (2-tailed)	.179
Exact Sig. [2*(1-tailed Sig.)]	.211 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

- **P4 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
cita rasa sampel P4	20	18.62	372.50
P5	20	22.38	447.50
Total	40		

Test Statistics^b

	cita rasa sampel
Mann-Whitney U	162.500
Wilcoxon W	372.500
Z	-1.063
Asymp. Sig. (2-tailed)	.288



Exact Sig. [2*(1-tailed Sig.)]	.314 ^a
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- a. Not corrected for ties.
- b. Grouping Variable: sampel perlakuan

- Analisis SPSS Mutu Organoleptik Aroma
 - P0 – P1

Ranks			
sampel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P0	20	23.90	478.00
P1	20	17.10	342.00
Total	40		

Test Statistics ^b	
	aroma sampel
Mann-Whitney U	132.000
Wilcoxon W	342.000
Z	-1.976
Asymp. Sig. (2-tailed)	.048
Exact Sig. [2*(1-tailed Sig.)]	.068 ^a

- a. Not corrected for ties.
- b. Grouping Variable: sampel perlakuan

- P0 – P2

Ranks



sample perlak uan	N	Mean Rank	Sum of Ranks
aroma sampel P0	20	22.40	448.00
P2	20	18.60	372.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	162.000
Wilcoxon W	372.000
Z	-1.102
Asymp. Sig. (2-tailed)	.270
Exact Sig. [2*(1-tailed Sig.)]	.314 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel
perlakuan

- P0 – P3

Ranks

sample perlak uan	N	Mean Rank	Sum of Ranks
aroma sampel P0	20	26.15	523.00
P3	20	14.85	297.00
Total	40		

Test Statistics^b



	aroma sampel
Mann-Whitney U	87.000
Wilcoxon W	297.000
Z	-3.239
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.002 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• P0 – P4

Ranks			
sampel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P0	20	26.05	521.00
P4	20	14.95	299.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	89.000
Wilcoxon W	299.000
Z	-3.195
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.002 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan



• P0 – P5

Ranks

sample perlak uan	N	Mean Rank	Sum of Ranks
aroma sampel P0	20	27.10	542.00
P5	20	13.90	278.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	68.000
Wilcoxon W	278.000
Z	-3.765
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel
perlakuan

• P1 – P2

Ranks

sample perlak uan	N	Mean Rank	Sum of Ranks
aroma sampel P1	20	19.20	384.00
P2	20	21.80	436.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	174.000
Wilcoxon W	384.000
Z	-.746
Asymp. Sig. (2-tailed)	.456
Exact Sig. [2*(1-tailed Sig.)]	.495 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P1 – P3**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P1	20	23.00	460.00
P3	20	18.00	360.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	150.000
Wilcoxon W	360.000
Z	-1.470
Asymp. Sig. (2-tailed)	.141
Exact Sig. [2*(1-tailed Sig.)]	.183 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	150.000
Wilcoxon W	360.000
Z	-1.470
Asymp. Sig. (2-tailed)	.141
Exact Sig. [2*(1-tailed Sig.)]	.183 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P1 – P4**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P1	20	22.95	459.00
P4	20	18.05	361.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	151.000
Wilcoxon W	361.000
Z	-1.414
Asymp. Sig. (2-tailed)	.157
Exact Sig. [2*(1-tailed Sig.)]	.192 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	151.000
Wilcoxon W	361.000
Z	-1.414
Asymp. Sig. (2-tailed)	.157
Exact Sig. [2*(1-tailed Sig.)]	.192 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P1 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P1	20	24.15	483.00
P5	20	16.85	337.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	127.000
Wilcoxon W	337.000
Z	-2.128
Asymp. Sig. (2-tailed)	.033
Exact Sig. [2*(1-tailed Sig.)]	.049 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	127.000
Wilcoxon W	337.000
Z	-2.128
Asymp. Sig. (2-tailed)	.033
Exact Sig. [2*(1-tailed Sig.)]	.049 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P2 – P3**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P2	20	24.05	481.00
P3	20	16.95	339.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	129.000
Wilcoxon W	339.000
Z	-2.049
Asymp. Sig. (2-tailed)	.040
Exact Sig. [2*(1-tailed Sig.)]	.056 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	129.000
Wilcoxon W	339.000
Z	-2.049
Asymp. Sig. (2-tailed)	.040
Exact Sig. [2*(1-tailed Sig.)]	.056 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P2 – P4**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P2	20	24.05	481.00
P4	20	16.95	339.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	129.000
Wilcoxon W	339.000
Z	-2.026
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.056 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	129.000
Wilcoxon W	339.000
Z	-2.026
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.056 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P2 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P2	20	25.10	502.00
P5	20	15.90	318.00
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	108.000
Wilcoxon W	318.000
Z	-2.637
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.012 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	108.000
Wilcoxon W	318.000
Z	-2.637
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.012 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P3 – P4**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P3	20	20.58	411.50
P4	20	20.42	408.50
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	198.500
Wilcoxon W	408.500
Z	-.044
Asymp. Sig. (2-tailed)	.965
Exact Sig. [2*(1-tailed Sig.)]	.968 ^a

a. Not corrected for ties.



Test Statistics^b

	aroma sampel
Mann-Whitney U	198.500
Wilcoxon W	408.500
Z	-.044
Asymp. Sig. (2-tailed)	.965
Exact Sig. [2*(1-tailed Sig.)]	.968 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P3 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P3	20	21.78	435.50
P5	20	19.22	384.50
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	174.500
Wilcoxon W	384.500
Z	-.774
Asymp. Sig. (2-tailed)	.439
Exact Sig. [2*(1-tailed Sig.)]	.495 ^a

a. Not corrected for ties.

Test Statistics^b

	aroma sampel
Mann-Whitney U	174.500
Wilcoxon W	384.500
Z	-.774
Asymp. Sig. (2-tailed)	.439
Exact Sig. [2*(1-tailed Sig.)]	.495 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan

• **P4 – P5**

Ranks

samplel perlakuan	N	Mean Rank	Sum of Ranks
aroma sampel P4	20	21.62	432.50
P5	20	19.38	387.50
Total	40		

Test Statistics^b

	aroma sampel
Mann-Whitney U	177.500
Wilcoxon W	387.500
Z	-.657
Asymp. Sig. (2-tailed)	.511
Exact Sig. [2*(1-tailed Sig.)]	.547 ^a

a. Not corrected for ties.

b. Grouping Variable: sampel perlakuan



LAMPIRAN 8 Dokumentasi Penelitian



Penimbangan bahan



Persiapan bahan



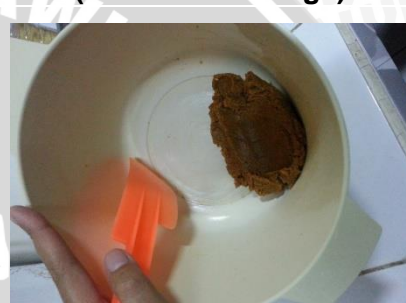
**Pencampuran bahan
(telur dan mentega)**



**Pencampuran bahan
(telur, mentega, dan gula)**



**Pencampuran bahan
(susu skim, tep. labu kuning
dan tep. bekatul)**



Hasil pencampuran bahan



**Mempersiapkan cetakan
untuk adonan yang sudah
siap**



Mencetak adonan



**Pengovenan ±25 menit
dengan suhu 110°C**



**Adonan yang sudah jadi
didinginkan untuk dikemas**



Food bars perlakuan PO



Food bars perlakuan P1



Food bars perlakuan P2



Food bars perlakuan P3



Food bars perlakuan P4



Food bars perlakuan P5



Hasil jadi Food bars



Persiapan uji organoleptik



Persiapan uji organoleptik



Panelis sedang melakukan uji organoleptik pada Food bars



Panelis sedang melakukan uji organoleptik pada Food bars

LAMPIRAN 9 Pernyataan Tulisan**PERNYATAAN KEASLIAN TULISAN**

Saya yang bertandatangan di bawah ini :

Nama : Elvira Febriani Pulungan

NIM : 105070307111003

Program Studi : Program Studi Ilmu Gizi

Fakultas Kedokteran Universitas Brawijaya

menyatakan dengan sebenarnya bahwa Tugas Akhir yang saya tulis ini benar – benar hasil karya saya sendiri, bukan merupakan pengambilan tulisan atau pikiran orang lain yang saya akui sebagai tulisan atau pikiran saya sendiri. Apabila di kemudian hari dapat dibuktikan bahwa Tugas Akhir ini adalah jiplakan, maka saya bersedia menerima sanksi atas perbuatan tersebut.

Malang, 4 Juli 2014

Yang membuat pernyataan,

Elvira Febriani P.

NIM. 105070307111003