7. LAMPIRAN

Lampiran 1. Standar Mutu Tepung Terigu

Jenis Uji	Satuan	Persyaratan
Keadaan :		
Bentuk	-	Serbuk
Bau	-	Normal (bebas dari bau asing)
Warna	-	Putih, khas terigu
Benda asing	-	Tidak ada
Serangga dalam semua bentuk stadia dan potongan-potongannya yang tampak	-	Tidak ada
Kehalusan, lolos ayakan 212 µm (mesh no. 70) (b/b)	%	Min. 95
Kadar Air (b/b)	%	Maks. 14,5
Kadar Abu (b/b)	%	Maks. 0,70
Kadar Protein (b/b)	%	Min. 7.0
Keasaman	mg KOH/ 100 g	Maks. 50
Falling number (atas dasar kadar air 14%)	detik	Min. 300
Besi (Fe)	mg/kg	Min. 50
Seng (Zn)	mg/kg	Min. 30
Vitamin B1 (tiamin)	mg/kg	Min. 2,5
Vitamin B2 (Riboflavin)	mg/kg	Min. 4
Asam Folat	mg/kg	Min. 2
Cemaran logam :		
a. Timbal (Pb)	mg/kg	Maks. 1,0
b. Raksa (Hg)	mg/kg	Maks. 0,05
c. Kadmium (Cd)	mg/kg	Maks. 0,1
Cemaran Arsen	mg/kg	Maks. 0,50
Cemaran Mikroba :		
a. Angka lempeng total	koloni/g	Maks. 1 x 10^6
b. *E. Coli*	APM/g	Maks. 10
c. Kapang	koloni/g	Maks. 1 x 10^4
d. *Bacilus cereus*	koloni/g	Maks. 1 x 10^4

(SNI, 2009)

Lampiran 2. Dokumentasi Sensori

Gambar 17. Sampel yang akan Diujikan ke Panelis

Gambar 18. Beberapa Panelis saat Melakukan Analisis Sensori

Lampiran 3. *Worksheet* Analisis Sensori *Churros* (Uji Ranking)

Lembar Kerja Uji Ranking Hedonik

Tanggal uji :
Jenis sampel : *Churros*

Identifikasi sampel	**Kode**
Churros dengan formulasi 0% Tepung Jali	A
Churros dengan formulasi 10% Tepung Jali	B
Churros dengan formulasi 20% Tepung Jali	C
Churros dengan formulasi 30% Tepung Jali	D
Churros dengan formulasi 40% Tepung Jali	E
Churros dengan formulasi 50% Tepung Jali	F

Kode kombinasi urutan penyajian:

EACFBD = 1	DCFBAE = 4	DECABF = 7	DCBFEA = 10
BCDFAE = 2	FEDBCA = 5	BADFCE = 8	
CDFEAB = 3	CFAEBD = 6	ECDAFB = 9	

Penyajian:

Panelis	**Kode Sampel (Urutan Penyajian)**					
1, 11, 21, 41	982	871	506	541	359	149^{1}
2, 12, 22, 42	153	503	860	971	092	910^{2}
3, 13, 23, 43	139	926	168	063	452	501^{3}
4, 14, 24, 44	605	940	894	812	019	240^{4}
5, 15, 25, 45	157	263	746	127	167	829^{5}
6, 16, 26, 46	195	523	730	654	921	593^{6}
7, 17, 27, 47	914	912	842	508	594	397^{7}
8, 18, 28, 48	170	316	691	291	942	720^{8}
9, 19, 29, 49	750	714	860	103	128	327^{9}
10, 20, 30, 50	183	108	918	406	409	380^{10}

Rekap Kode Sampel :

Sampel A	871	092	452	019	829	730	508	316	103	380
Sampel B	359	153	501	812	127	921	594	170	327	918
Sampel C	506	503	139	940	167	195	842	942	714	108
Sampel D	149	860	926	605	746	593	914	691	860	183
Sampel E	982	910	063	240	263	654	912	720	750	409
Sampel F	541	971	168	894	157	523	397	291	128	406

Lampiran 4. *Scoresheet* Analisis Sensori *Churros* (Uji Ranking)

UJI RANKING HEDONIK

Nama Panelis : Tanggal :

Jenis kelamin :

Line :

Produk : *Churros*

Instruksi:

Dihadapan Anda terdapat 6 sampel *churros*. Amati dan cicipi setiap sampel secara berurutan dari kiri ke kanan. Pastikan Anda berkumur-kumur dahulu **SEBELUM** mencoba sampel berikutnya. Setelah mencicipi semua sampel, Anda boleh mengulang sesering yang Anda perlukan. Penilaian dilakukan dengan sistem ranking dengan skor 1 (paling tidak disukai) sampai 6 (paling disukai). Skor yang diberikan **TIDAK BOLEH SAMA ANTAR SAMPEL**.

Parameter	Kode Sampel					
Warna						
Rasa						
Tekstur						
Overall						

Terima kasih.

Lampiran 5. *Worksheet* Analisis Sensori *Churros* (Uji Duo Trio)

Lembar Kerja Duo Trio

Tanggal uji :

Jenis sampel : *Churros*

Identifikasi sampel	**Kode**
Churros dengan formulasi 0% Tepung Jali	A
Churros dengan formulasi 10% Tepung Jali	B

Kode kombinasi urutan penyajian:

RAB = 1 RBA = 2

Penyajian:

Booth	**Panelis**	**Kode Sampel (Urutan Penyajian)**		
I	1, 11, 21, 31, 41, 51	R=A	982	871^1
II	2, 12, 22, 32, 42, 52	R=A	153	503^2
III	3, 13, 23, 33, 43, 53	R=A	139	926^1
IV	4, 14, 24, 34, 44, 54	R=A	605	940^2
V	5, 15, 25, 35, 45, 55	R=A	157	263^1
I	6, 16, 26, 36, 46, 56	R=A	195	523^2
II	7, 17, 27, 37, 47, 57	R=A	914	912^1
III	8, 18, 28, 38, 48, 58	R=A	170	316^2
IV	9, 19, 29, 39, 49, 59	R=A	750	714^1
V	10, 20, 30, 40, 50, 60	R=A	183	108^2

Rekap Kode Sampel :

Sampel A	982	503	139	940	157	523	914	316	750	108
Sampel B	871	153	926	605	263	195	912	170	714	183

Lampiran *6. Scoresheet* Analisis Sensori *Churros* (Uji Duo Trio)

UJI DUO TRIO

Nama : Tanggal :

ID Line :

Produk : *Churros*

Instruksi:

Dihadapan Anda terdapat 3 sampel *churros* yang bertanda R dan 2 sampel berkode. Sampel yang diatas (R) merupakan sampel acuan. Pastikan Anda berkumur-kumur dahulu **SEBELUM** mencoba sampel berikutnya. Setelah mencicipi semua sampel, Anda boleh mengulang sesering yang Anda perlukan. Tentukan sampel mana yang **sama** dengan sampel acuan dari kedua sampel yang berkode. Penilaian dilakukan dengan memberikan tanda centang (√) untuk sampel yang **sama** dengan R

Sampel sama :

Terima kasih.

Lampiran 7. Perhitungan *Duo Trio Test*

No.	Hasil Duo Trio	
	Perlakuan 1	Perlakuan 2
1	0	1
2	0	1
3	0	1
4	1	0
5	0	1
6	0	1
7	0	1
8	1	0
9	1	0
10	0	1
11	0	1
12	0	1
13	0	1
14	1	0
15	0	1
16	0	1
17	1	0
18	1	0
19	0	1
20	0	1
21	0	1
22	0	1
23	1	0
24	0	1
25	1	0
26	0	1
27	0	1
28	1	0
29	0	1
30	0	1
31	0	1
32	0	1
33	1	0
34	0	1
35	0	1
36	1	0
37	0	1
38	0	1
39	0	1
40	0	1
41	1	0

42	0	1
43	0	1
44	1	0
45	0	1
46	0	1
47	0	1
48	0	1
49	1	0
50	0	1
51	0	1
52	1	0
53	0	1
54	0	1
55	1	0
56	1	0
57	0	1
58	1	0
59	0	1
60	0	1
61	0	1
62	0	1
63	0	1
64	0	1
65	1	0
66	1	0
67	0	1
68	0	1
69	1	0
70	0	1
71	0	1
72	0	1
73	1	0
74	0	1
75	1	0
76	1	0
77	1	0
78	0	1
79	0	1
80	0	1

Keterangan :

- Formula 1 : *Churros* Kontrol
- Formula 2 : *Churros* Substitusi 10% Tepung Jali Fermentasi

Hasil dari *duo trio test* dihitung dengan menggunakan rumus:

$$Perbedaan\ (\%) = \frac{\sum panelis\ yang\ memilih\ sampel\ perlakuan\ berbeda\ dengan\ reference}{\sum panelis\ seluruhnya} \times 100$$

- Formula 1 :

∑ panelis yang memilih sampel perlakuan berbeda dengan *reference* : 55 panelis

∑ panelis seluruhnya : 80 panelis

$$Perbedaan\ (\%) = \frac{55}{80} \times 100$$

$$Perbedaan\ (\%) = 68{,}75$$

- Formula 2 :

∑ panelis yang memilih sampel perlakuan berbeda dengan *reference* : 25 panelis

∑ panelis seluruhnya : 80 panelis

$$Perbedaan\ (\%) = \frac{25}{80} \times 100$$

$$Perbedaan\ (\%) = 31{,}25$$

Lampiran 8. Perhitungan Total Kalori Tepung

Perhitungan total kalori pada tepung dapat dihitung dengan menggunakan rumus :

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times K\right) + \left(4^{kkal}/_{g}\ \times\ P\right) + \left(9^{kkal}/_{g} \times L\right)$$

Keterangan :
K = Massa Karbohidrat (berat basah) (g)
P = Massa Protein (berat basah) (g)
L = Massa Lemak (berat basah) (g)

1. Tepung Terigu
   - Kadar Air = 11,15 g
   - Kadar Abu = 0,33 g
   - Kadar Protein = 12,35 g
   - Kadar Lemak = 2,43 g
   - Kadar Karbohidrat = 75,14 g

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times 75{,}14\right) + \left(4^{kkal}/_{g}\ \times\ 12{,}35\right) + \left(9^{kkal}/_{g} \times 2{,}43\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(300{,}56^{kkal}/_{g}\right) + \left(49{,}4^{kkal}/_{g}\right) + \left(21{,}87^{kkal}/_{g}\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = 371{,}83^{kkal}/_{g}$$

2. Tepung Jali Non Fermentasi
   - Kadar Air = 8,34 g
   - Kadar Abu = 0,86 g
   - Kadar Protein = 11,34 g
   - Kadar Lemak = 3,86 g
   - Kadar Karbohidrat = 76,54 g

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times 76{,}54\right) + \left(4^{kkal}/_{g}\ \times\ 11{,}34\right) + \left(9^{kkal}/_{g} \times 3{,}86\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(306{,}16^{kkal}/_{g}\right) + \left(45{,}36^{kkal}/_{g}\right) + \left(34{,}74^{kkal}/_{g}\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = 386{,}26^{kkal}/_{g}$$

3. Tepung Jali Fermentasi
   - Kadar Air = 2,31 g
   - Kadar Abu = 1,06 g
   - Kadar Protein = 5,93 g
   - Kadar Lemak = 2,59 g
   - Kadar Karbohidrat = 88,25 g

$$Energi\ \left({}^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times 88{,}25\right) + \left(4^{kkal}/_{g}\ \times\ 5{,}93\right) + \left(9^{kkal}/_{g} \times 2{,}59\right)$$

$$Energi\ \left({}^{kkal}/_{100\ g}\right) = \left(353^{kkal}/_{g}\right) + \left(23{,}72^{kkal}/_{g}\right) + \left(23{,}31^{kkal}/_{g}\right)$$

$$Energi\ \left({}^{kkal}/_{100\ g}\right) = 400{,}03^{kkal}/_{g}$$

Lampiran 9. Perhitungan Total Kalori *Churros*

Perhitungan total kalori pada *churros* dapat dihitung dengan menggunakan rumus :

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times K\right) + \left(4^{kkal}/_{g}\ \times\ P\right) + \left(9^{kkal}/_{g} \times L\right)$$

Keterangan :
K = Massa Karbohidrat (berat basah) (g)
P = Massa Protein (berat basah) (g)
L = Massa Lemak (berat basah) (g)

1. Churros Kontrol (Tanpa Substitusi Tepung Jali Fermentasi) dalam 100g

- Kadar Air = 18,72 g
- Kadar Abu = 1,66 g
- Kadar Protein = 11,77 g
- Kadar Lemak = 39,55 g
- Kadar Karbohidrat = 30,51 g

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times 30{,}51\right) + \left(4^{kkal}/_{g}\ \times\ 11{,}77\right) + \left(9^{kkal}/_{g} \times 39{,}55\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(122{,}04^{kkal}/_{g}\right) + \left(47{,}08^{kkal}/_{g}\right) + \left(355{,}95^{kkal}/_{g}\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = 525{,}07^{kkal}/_{g}$$

2. Churros Substitusi 10% Tepung Jali Fermentasi dalam 100g

- Kadar Air = 16,00 g
- Kadar Abu = 1,30 g
- Kadar Protein = 11,68 g
- Kadar Lemak = 39,51 g
- Kadar Karbohidrat = 33,38 g

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(4^{kkal}/_{g} \times 33{,}38\right) + \left(4^{kkal}/_{g}\ \times\ 11{,}68\right) + \left(9^{kkal}/_{g} \times 39{,}51\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = \left(133{,}52^{kkal}/_{g}\right) + \left(46{,}72^{kkal}/_{g}\right) + \left(355{,}59^{kkal}/_{g}\right)$$

$$Energi\ \left(^{kkal}/_{100\ g}\right) = 535{,}83^{kkal}/_{g}$$

Lampiran 10. Hasil Analisis Data Penelitian Sensori *Churros* SPSS

1. *Kruskal Wallis Test*

Test Statistics[a,b]

	Warna	Rasa	Tekstur	Overall
Chi-Square	63.355	57.239	28.515	52.363
df	5	5	5	5
Asymp. Sig.	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: Perlakuan

2. *Mann-Whitney Test*

2.1. Perbandingan antara *churros* kontrol dengan *churros* substitusi 10% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1694.000	1665.500	1654.000	1617.000
Wilcoxon W	3524.000	3495.500	3484.000	3447.000
Z	-.570	-.724	-.779	-.983
Asymp. Sig. (2-tailed)	.568	.469	.436	.326

a. Grouping Variable: Perlakuan

2.2. Perbandingan antara *churros* kontrol dengan *churros* substitusi 20% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1483.000	1433.500	1646.000	1673.500
Wilcoxon W	3313.000	3263.500	3476.000	3503.500
Z	-1.700	-1.962	-.822	-.675
Asymp. Sig. (2-tailed)	.089	.050	.411	.499

a. Grouping Variable: Perlakuan

2.3. Perbandingan antara *churros* kontrol dengan *churros* substitusi 30% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1211.000	1211.500	1703.500	1488.000
Wilcoxon W	3041.000	3041.500	3533.500	3318.000
Z	-3.144	-3.143	-.514	-1.664
Asymp. Sig. (2-tailed)	.002	.002	.607	.096

a. Grouping Variable: Perlakuan

2.4. Perbandingan antara *churros* kontrol dengan *churros* substitusi 40% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	882.000	776.500	1307.000	1008.000
Wilcoxon W	2712.000	2606.500	3137.000	2838.000
Z	-4.890	-5.450	-2.627	-4.228
Asymp. Sig. (2-tailed)	.000	.000	.009	.000

a. Grouping Variable: Perlakuan

2.5. Perbandingan antara *churros* kontrol dengan *churros* substitusi 50% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	670.000	763.000	1309.500	958.500
Wilcoxon W	2500.000	2593.000	3139.500	2788.500
Z	-6.037	-5.541	-2.615	-4.488
Asymp. Sig. (2-tailed)	.000	.000	.009	.000

a. Grouping Variable: Perlakuan

2.6. Perbandingan antara *churros* substitusi 10% tepung jali dengan *churros* substitusi 20% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1637.000	1558.000	1794.000	1479.000
Wilcoxon W	3467.000	3388.000	3624.000	3309.000
Z	-.872	-1.293	-.032	-1.719
Asymp. Sig. (2-tailed)	.383	.196	.974	.086

a. Grouping Variable: Perlakuan

2.7. Perbandingan antara *churros* substitusi 10% tepung jali dengan *churros* substitusi 30% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1349.000	1325.500	1536.000	1302.000
Wilcoxon W	3179.000	3155.500	3366.000	3132.000
Z	-2.406	-2.532	-1.409	-2.660
Asymp. Sig. (2-tailed)	.016	.011	.159	.008

a. Grouping Variable: Perlakuan

2.8. Perbandingan antara *churros* substitusi 10% tepung jali dengan *churros* substitusi 40% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1040.000	878.500	1074.000	824.000
Wilcoxon W	2870.000	2708.500	2904.000	2654.000
Z	-4.051	-4.913	-3.869	-5.209
Asymp. Sig. (2-tailed)	.000	.000	.000	.000

a. Grouping Variable: Perlakuan

2.9. Perbandingan antara *churros* substitusi 10% tepung jali dengan *churros* substitusi 50% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	788.000	875.000	1082.000	808.000
Wilcoxon W	2618.000	2705.000	2912.000	2638.000
Z	-5.404	-4.942	-3.826	-5.287
Asymp. Sig. (2-tailed)	.000	.000	.000	.000

a. Grouping Variable: Perlakuan

3.0. Perbandingan antara *churros* substitusi 20% tepung jali dengan *churros* substitusi 30% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1469.000	1626.000	1542.500	1610.500
Wilcoxon W	3299.000	3456.000	3372.500	3440.500
Z	-1.766	-.928	-1.373	-1.011
Asymp. Sig. (2-tailed)	.077	.353	.170	.312

a. Grouping Variable: Perlakuan

3.1. Perbandingan antara *churros* substitusi 20% tepung jali dengan *churros* substitusi 40% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1079.500	1192.500	1104.000	1111.000
Wilcoxon W	2909.500	3022.500	2934.000	2941.000
Z	-3.844	-3.250	-3.707	-3.678
Asymp. Sig. (2-tailed)	.000	.001	.000	.000

a. Grouping Variable: Perlakuan

3.2. Perbandingan antara *churros* substitusi 20% tepung jali dengan *churros* substitusi 50% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	811.500	1101.500	1101.500	1004.500
Wilcoxon W	2641.500	2931.500	2931.500	2834.500
Z	-5.274	-3.727	-3.724	-4.261
Asymp. Sig. (2-tailed)	.000	.000	.000	.000

a. Grouping Variable: Perlakuan

3.3. Perbandingan antara *churros* substitusi 30% tepung jali dengan *churros* substitusi 40% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1443.500	1324.500	1397.000	1295.500
Wilcoxon W	3273.500	3154.500	3227.000	3125.500
Z	-1.904	-2.547	-2.149	-2.696
Asymp. Sig. (2-tailed)	.057	.011	.032	.007

a. Grouping Variable: Perlakuan

3.4. Perbandingan antara *churros* substitusi 30% tepung jali dengan *churros* substitusi 50% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1145.500	1251.500	1405.000	1215.500
Wilcoxon W	2975.500	3081.500	3235.000	3045.500
Z	-3.512	-2.931	-2.106	-3.127
Asymp. Sig. (2-tailed)	.000	.003	.035	.002

a. Grouping Variable: Perlakuan

3.5. Perbandingan antara *churros* substitusi 40% tepung jali dengan *churros* substitusi 50% tepung jali

Test Statistics[a]

	Warna	Rasa	Tekstur	Overall
Mann-Whitney U	1445.000	1683.500	1778.000	1688.000
Wilcoxon W	3275.000	3513.500	3608.000	3518.000
Z	-1.920	-.628	-.118	-.603
Asymp. Sig. (2-tailed)	.055	.530	.906	.546

a. Grouping Variable: Perlakuan

Lampiran 11. Hasil Analisis Data Penelitian Fisik dan Kimia *Churros* SPSS

1. Analisis Fisik

1.1. Analisis Normalitas

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Texture_Analyzer	.167	12	.200*	.893	12	.128
Chroma_L	.209	12	.157	.899	12	.152
Chroma_a	.214	12	.134	.873	12	.071
Chroma_b	.170	12	.200*	.933	12	.414

a. Lilliefors Significance Correction

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

1.2. Analisis Homogenitas

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Texture_Analyzer	Based on Mean	.575	1	10	.466
	Based on Median	.530	1	10	.483
	Based on Median and with adjusted df	.530	1	9.996	.483
	Based on trimmed mean	.572	1	10	.467
Chroma_L	Based on Mean	1.818	1	10	.207
	Based on Median	1.045	1	10	.331
	Based on Median and with adjusted df	1.045	1	7.988	.337
	Based on trimmed mean	1.674	1	10	.225
Chroma_a	Based on Mean	1.392	1	10	.265
	Based on Median	1.404	1	10	.263
	Based on Median and with adjusted df	1.404	1	9.674	.264
	Based on trimmed mean	1.405	1	10	.263
Chroma_b	Based on Mean	.211	1	10	.656
	Based on Median	.202	1	10	.663
	Based on Median and with adjusted df	.202	1	9.473	.663
	Based on trimmed mean	.194	1	10	.669

1.3. Hasil Analisis Perbandingan Antar Formulasi (*Independent T-Test*)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Texture_Analyzer	Equal variances assumed	.575	.466	-7.887	10	.000	-352.86300	44.73770	-452.54482	-253.18118
	Equal variances not assumed			-7.887	9.694	.000	-352.86300	44.73770	-452.97252	-252.75348
Chroma_L	Equal variances assumed	1.818	.207	7.663	10	.000	6.14000	.80130	4.35460	7.92540
	Equal variances not assumed			7.663	8.244	.000	6.14000	.80130	4.30169	7.97831
Chroma_a	Equal variances assumed	1.392	.265	-9.939	10	.000	-.49167	.04947	-.60189	-.38144
	Equal variances not assumed			-9.939	8.540	.000	-.49167	.04947	-.60450	-.37883
Chroma_b	Equal variances assumed	.211	.656	-5.365	10	.000	-6.05667	1.12890	-8.57200	-3.54133
	Equal variances not assumed			-5.365	9.584	.000	-6.05667	1.12890	-8.58687	-3.52646

2. Analisis Kimia

2.1. Analisis Normalitas

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Air	.209	12	.157	.916	12	.255
Abu	.198	12	.200*	.894	12	.135
Protein	.186	12	.200*	.907	12	.195
Lemak	.133	12	.200*	.923	12	.308
Karbohidrat	.136	12	.200*	.928	12	.362
Kalori	.209	12	.157	.893	12	.130

a. Lilliefors Significance Correction

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

2.2. Analisis Homogenitas

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Air	Based on Mean	2.748	1	10	.128
	Based on Median	1.142	1	10	.310
	Based on Median and with adjusted df	1.142	1	7.017	.321
	Based on trimmed mean	2.654	1	10	.134
Abu	Based on Mean	.574	1	10	.466
	Based on Median	.608	1	10	.454
	Based on Median and with adjusted df	.608	1	5.002	.471
	Based on trimmed mean	.579	1	10	.464
Protein	Based on Mean	1.381	1	10	.267
	Based on Median	.254	1	10	.625
	Based on Median and with adjusted df	.254	1	8.523	.627
	Based on trimmed mean	1.153	1	10	.308
Lemak	Based on Mean	4.351	1	10	.064
	Based on Median	4.487	1	10	.060
	Based on Median and with adjusted df	4.487	1	6.708	.074
	Based on trimmed mean	4.357	1	10	.063
Karbohidrat	Based on Mean	1.275	1	10	.285
	Based on Median	1.285	1	10	.283
	Based on Median and with adjusted df	1.285	1	9.821	.284
	Based on trimmed mean	1.274	1	10	.285
Kalori	Based on Mean	1.901	1	10	.198
	Based on Median	.737	1	10	.411
	Based on Median and with adjusted df	.737	1	7.552	.417
	Based on trimmed mean	1.670	1	10	.225

2.3. Hasil Analisis Perbandingan Antar Formulasi (*Independent T-Test*)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Air	Equal variances assumed	2.748	.128	5.782	10	.000	2.71349	.46933	1.66776	3.75922
	Equal variances not assumed			5.782	7.359	.001	2.71349	.46933	1.61458	3.81240
Abu	Equal variances assumed	.574	.466	5.953	10	.000	.36547	.06140	.22868	.50227
	Equal variances not assumed			5.953	9.971	.000	.36547	.06140	.22862	.50233
Protein	Equal variances assumed	1.381	.267	.449	10	.663	.09396	.20934	-.37247	.56039
	Equal variances not assumed			.449	9.150	.664	.09396	.20934	-.37841	.56633
Lemak	Equal variances assumed	4.351	.064	.587	10	.570	.03340	.05687	-.09331	.16012
	Equal variances not assumed			.587	5.973	.578	.03340	.05687	-.10590	.17271
Karbohidrat	Equal variances assumed	1.275	.285	-5.551	10	.000	-2.87071	.51718	-4.02306	-1.71835
	Equal variances not assumed			-5.551	8.733	.000	-2.87071	.51718	-4.04614	-1.69528
Kalori	Equal variances assumed	1.901	.198	-6.193	10	.000	-12.14882	1.96160	-16.51953	-7.77810
	Equal variances not assumed			-6.193	7.461	.000	-12.14882	1.96160	-16.72974	-7.56790

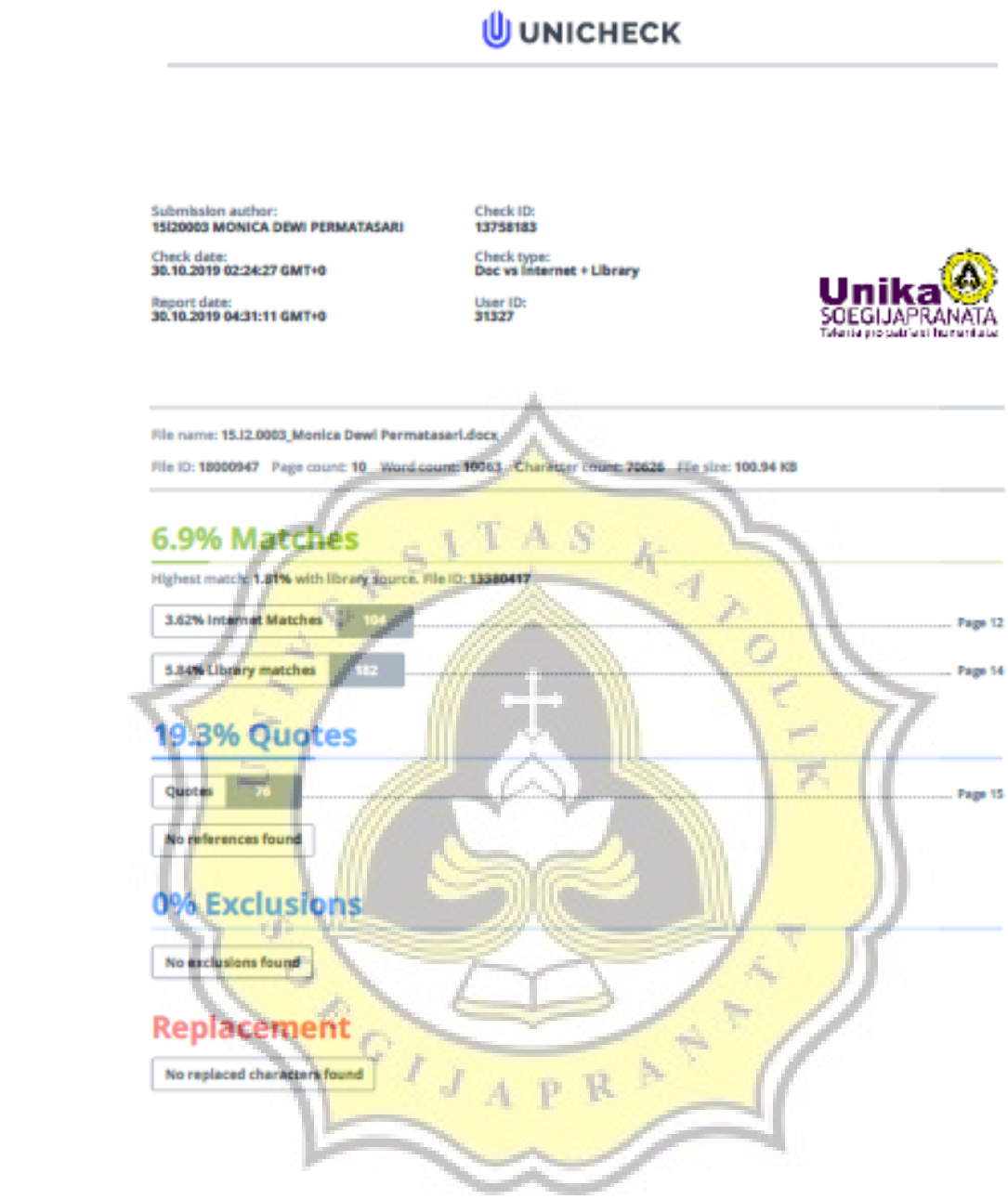
3. Hasil Analisis Korelasi

Correlations

		Texture_ Analyzer	Chroma_L	Chroma_a	Chroma_b	Kadar_Air	Kadar_ Protein	Kadar_Lemak	Kadar_ Karbohidrat
Texture_Analyzer	Pearson Correlation	1	-.940**	.951**	.854**	-.780**	.079	-.305	.743**
	Sig. (2-tailed)		.000	.000	.000	.003	.807	.334	.006
	N	12	12	12	12	12	12	12	12
Chroma_L	Pearson Correlation	-.940**	1	-.903**	-.779**	.854**	.152	.280	-.836**
	Sig. (2-tailed)	.000		.000	.003	.000	.638	.377	.001
	N	12	12	12	12	12	12	12	12
Chroma_a	Pearson Correlation	.951**	-.903**	1	.820**	-.865**	.092	-.236	.816**
	Sig. (2-tailed)	.000	.000		.001	.000	.777	.461	.001
	N	12	12	12	12	12	12	12	12
Chroma_b	Pearson Correlation	.854**	-.779**	.820**	1	-.668*	.054	-.350	.668*
	Sig. (2-tailed)	.000	.003	.001		.018	.867	.264	.018
	N	12	12	12	12	12	12	12	12
Kadar_Air	Pearson Correlation	-.780**	.854**	-.865**	-.668*	1	.331	.131	-.988**
	Sig. (2-tailed)	.003	.000	.000	.018		.293	.685	.000
	N	12	12	12	12	12	12	12	12
Kadar_Protein	Pearson Correlation	.079	.152	.092	.054	.331	1	-.178	-.448
	Sig. (2-tailed)	.807	.638	.777	.867	.293		.579	.144
	N	12	12	12	12	12	12	12	12
Kadar_Lemak	Pearson Correlation	-.305	.280	-.236	-.350	.131	-.178	1	-.139
	Sig. (2-tailed)	.334	.377	.461	.264	.685	.579		.666
	N	12	12	12	12	12	12	12	12
Kadar_Karbohidrat	Pearson Correlation	.743**	-.836**	.816**	.668*	-.988**	-.448	-.139	1
	Sig. (2-tailed)	.006	.001	.001	.018	.000	.144	.666	
	N	12	12	12	12	12	12	12	12

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).



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