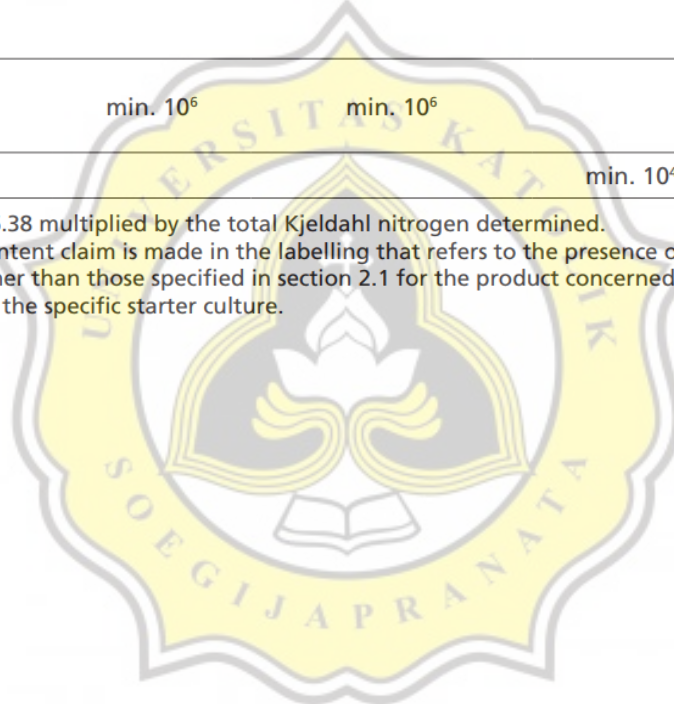## 7. LAMPIRAN

Lampiran 1. Standar Minuman Fermentasi Berbasis Susu (CODEX STAN 243-2003)
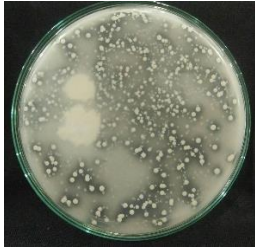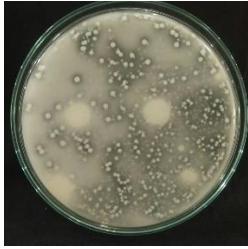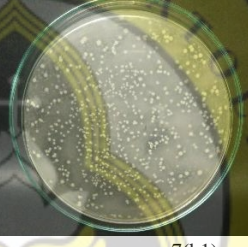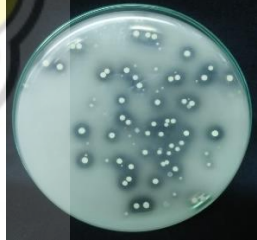
	Fermented Milk	Yoghurt, Alternate Culture Yoghurt and Acidophilus milk	Kefir	Kumys
Milk protein[a] (% m/m)	min. 2.7%	min. 2.7%	min. 2.7%	
Milk fat (% m/m)	less than 10%	less than 15%	less than 10%	less than 10%
Titrable acidity, expressed as % lactic acid (% m/m)	min. 0.3%	min. 0.6%	min. 0.6%	min. 0.7%
Ethanol (% vol./w)				min. 0.5%
Sum of microorganisms constituting the starter culture defined in section 2.1 (cfu/g, in total)	min. 10^7	min. 10^7	min. 10^7	min. 10^7
Labelled microorganisms[b] (cfu/g, total)	min. 10^6	min. 10^6		
Yeasts (cfu/g)			min. 10^4	min. 10^4

(a) Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined.
(b) Applies where a content claim is made in the labelling that refers to the presence of a specific microorganism (other than those specified in section 2.1 for the product concerned) that has been added as a supplement to the specific starter culture.
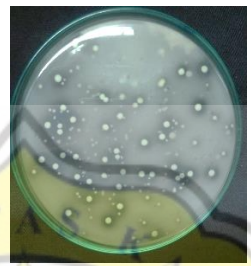
Lampiran 2. Bakteri Asam Laktat Okra *Yogurt* (cfu/ml)

Sampel		Umur Simpan		
		0	7	14
Kontrol	10^{-3}	$2{,}335 \times 10^6$	$1{,}907 \times 10^6$	$1{,}5625 \times 10^6$
	10^{-4}	$9{,}225 \times 10^{6(a1)}$	$6{,}35 \times 10^{6(a1)}$	$4{,}35 \times 10^{6(a1)}$
A	10^{-3}	$2{,}885 \times 10^6$	$2{,}6225 \times 10^6$	$2{,}4125 \times 10^6$
	10^{-4}	$1{,}22 \times 10^{7(b1)}$	$1{,}035 \times 10^{7(b1)}$	$8{,}625 \times 10^{6(b1)}$

| B | 10^{-3} | *spreader* | $2,8875 \times 10^6$ | $2,6475 \times 10^6$ |

| | 10^{-4} | $1,71 \times 10^7$ | $1,4975 \times 10^7$ | $1,34 \times 10^{7\,(c1)}$ |
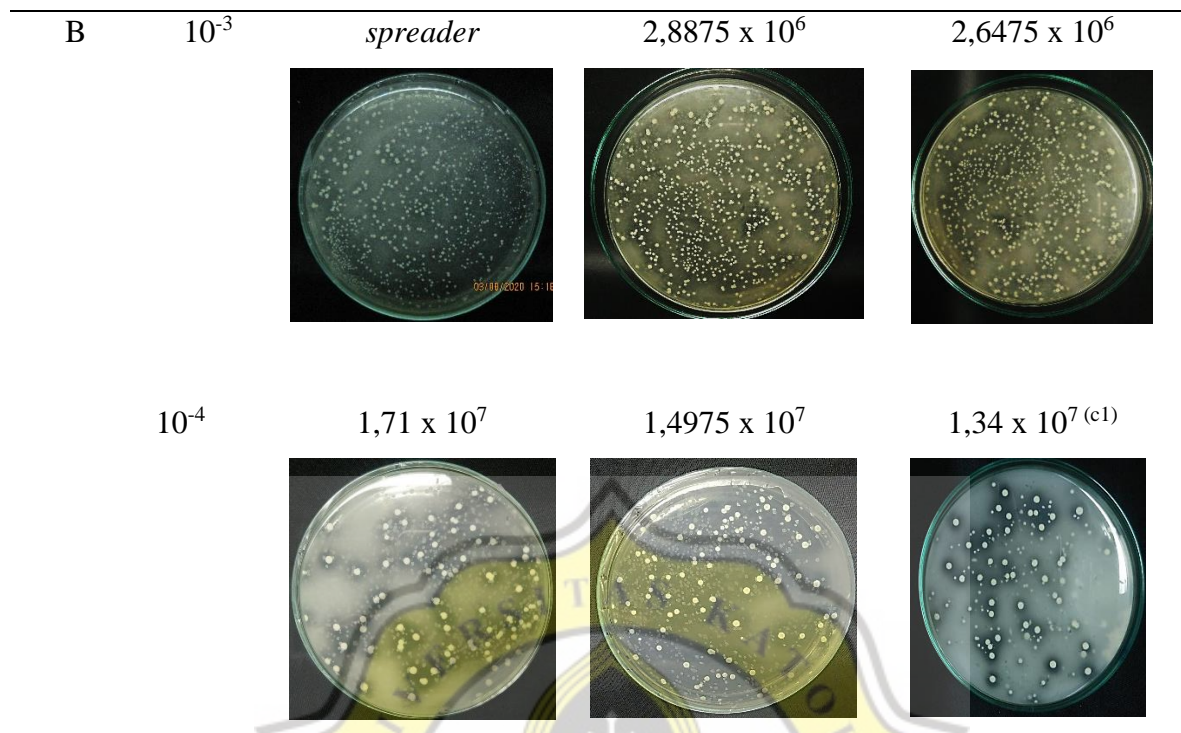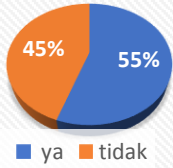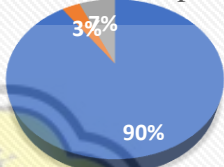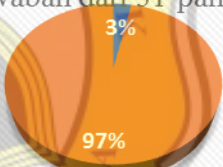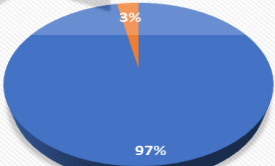
Lampiran 3. Bakteri Asam Laktat Okra *Yogurt* Bubuk (cfu/g)

Sampel		Umur Simpan		
		0	7	14
Kontrol	10^{-3}	$2,2825 \times 10^{6(a1)}$	$2,2125 \times 10^{6\,(a1)}$	$2,0625 \times 10^{6(a1)}$
	10^{-4}	$9,675 \times 10^{6(q1)}$	$8,8 \times 10^{6(q1)}$	$7,85 \times 10^{6(q1)}$
A	10^{-3}	$2,745 \times 10^{6(b1)}$	$2,71 \times 10^{6(b1)}$	$2,5575 \times 10^{6(b1)}$
	10^{-4}	$1,2925 \times 10^{7(r1)}$	$1,2025 \times 10^{7(r1)}$	$1,08 \times 10^{7(r1)}$

B	10^{-3}	$2,9575 \times 10^{6(c1)}$	$2,8825 \times 10^{6(c1)}$	$2,77 \times 10^{6(c1)}$
	10^{-4}	$1,685 \times 10^{7(s1)}$	$1,595 \times 10^{7(s1)}$	$1,465 \times 10^{7(s1)}$
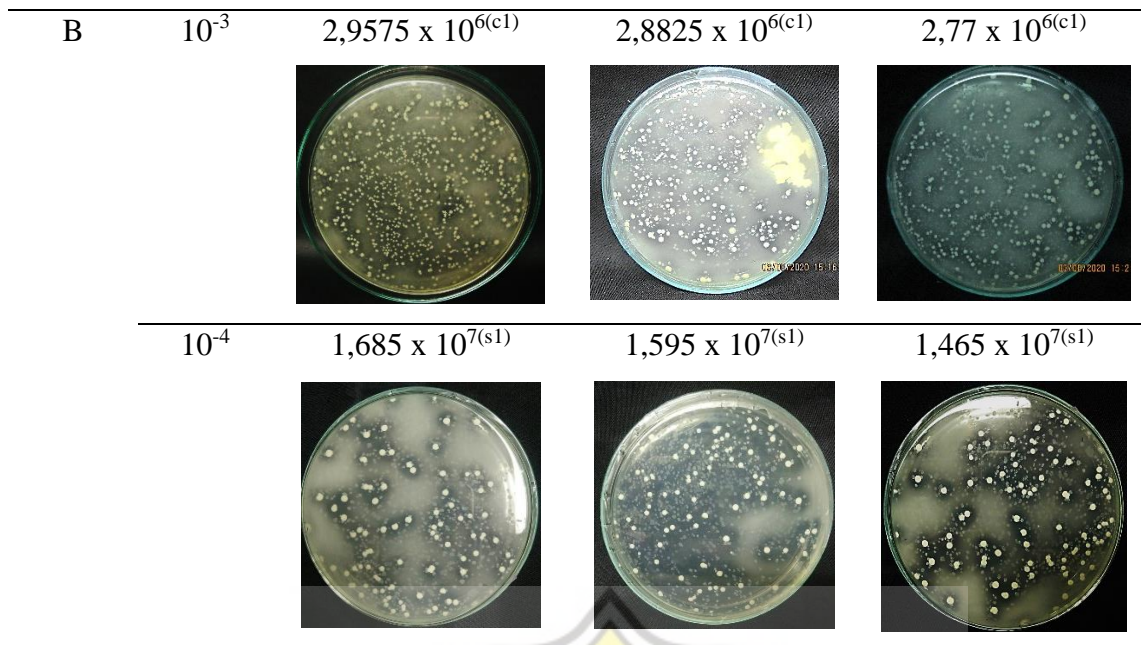
Lampiran 4. Hasil Seleksi Sensori dari Jawaban Panelis

No	Tahap Pertanyaan	Jawaban Panelis
1	Apakah anda menyukai produk *yogurt*?	
2	Seberapa sering anda mengonsumsi produk *yogurt* dalam 1 minggu	
3	Apakah pernah mengonsumsi atau menjumpai produk okra *yogurt* di pasaran?	
4.	Apakah anda bersedia menjadi panelis okra *yogurt?*	

Lampiran 5. *Scoresheet* Sensori

Hedonik Test – Rating & Ranking
Okra *Yogurt*

Nama :   Kontak *whatsapp:*
Hari, tanggal :   Angkatan :

Petunjuk:
Terdapat 2 jenis perlakuan pada produk okra yogurt dengan perbedaan formulasi buah okra dan susu serta 1 perlakuan kontrol (tanpa penambahan okra). Anda diminta untuk menuliskan kode sampel secara berurutan dari kiri ke kanan dan menilai parameter warna, tingkat keasaman, tekstur, rasa, aroma dan *overall* dengan mencicipi produk dari kiri ke kanan sesuai dengan urutan kode sampel. Berikan nilai secara **rating (BOLEH SAMA)** pada tabel 1 & secara **ranking (TIDAK BOLEH SAMA)** pada tabel 2 terhadap parameter-parameter di bawah. Berkumur terlebih dahulu sebelum mencicipi dan berganti sampel.

Keterangan:
Sangat tidak suka (=1)   Tidak suka (=2)   Agak suka (=3)
Suka (=4)   Sangat suka (=5).

Tabel 1. Pengujian Secara Rating

Atribut	Kode Sampel		
Warna			
Tingkat keasaman			
Tekstur			
Rasa			
Aroma			
Overall			

Tabel 2. Pengujian Secara Ranking

Atribut	Kode Sampel		
Warna			
Tingkat keasaman			
Tekstur			
Rasa			
Aroma			
Overall			

-TERIMA KASIH-

Lampiran 6. Alat Analisis Fisiko-Kimiawi dan Mikrobiologi

Analisis		Gambar	Nama Alat
Analisis Fisik	Viskositas		*Viscometer* – Brookfield DV1
	Persentase Sineresis		*Centrifuge* – Hettich EBA 200
Analisis Kimia	Aktivitas Antioksidan		Spektrofotometer Shimadzu UV-1280
	pH		pH meter digital
Analisis Mikrobiologi	*Total Plate Count*		*Stuart Colony Counter*

Lampiran 7. Pengolahan Data Analisis Antioksidan Buah Okra

Tests of Normality

	Waktu	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Antioksidan	0 menit	.260	6	.200[*]	.929	6	.575
	10 menit	.255	6	.200[*]	.831	6	.110
	15 menit	.285	6	.138	.827	6	.101
	20 menit	.302	6	.093	.727	6	.012

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

a. Lilliefors Significance Correction

Tests of Normality

	Suhu	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Antioksidan	70C	.206	12	.168	.880	12	.089
	80C	.182	12	.200[*]	.884	12	.098

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

a. Lilliefors Significance Correction

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Antioksidan

F	df1	df2	Sig.
2.956	7	16	.034

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Waktu + Suhu + Waktu * Suhu

Antioksidan

Duncan[a,b]

Waktu	N	Subset			
		1	2	3	4
20 menit	6	20.6052			
15 menit	6		25.0577		
10 menit	6			26.7865	
0 menit	6				32.0223
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .092.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = .05.

Tests of Between-Subjects Effects

Dependent Variable: Antioksidan

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	426.309[a]	7	60.901	659.072	.000
Intercept	16371.519	1	16371.519	177171.812	.000
Waktu	400.937	3	133.646	1446.309	.000
Suhu	15.644	1	15.644	169.298	.000
Waktu * Suhu	9.728	3	3.243	35.093	.000
Error	1.478	16	.092		
Total	16799.306	24			
Corrected Total	427.788	23			

a. R Squared = .997 (Adjusted R Squared = .995)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	70C - 80C	1.61472	1.37304	.39636	.74233	2.48711	4.074	11	.002

Lampiran 8. Pengolahan Data Analisis Bakteri Buah Okra pada Media NA

Tests of Normality

	Suhu	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Cfu_gram	70C	.239	9	.145	.817	9	.032
	80C	.217	9	.200[*]	.832	9	.047

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

a. Lilliefors Significance Correction

Tests of Normality

	Waktu	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Cfu_gram	0 menit	.237	6	.200[*]	.927	6	.554
	10 menit	.197	6	.200[*]	.921	6	.512
	15 menit	.318	6	.057	.696	6	.006

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

a. Lilliefors Significance Correction

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Cfu

F	df1	df2	Sig.
4.798	5	12	.012

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Waktu + Suhu + Waktu * Suhu

Cfu

Duncan[a,b]

		Subset		
Waktu	N	1	2	3
15 menit	6	19183.3333		
10 menit	6		415000.0000	
0 menit	6			673333.3333
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 188945000.000.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = .05.

Tests of Between-Subjects Effects

Dependent Variable: Cfu

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.315E+12[a]	5	2.629E+11	1391.537	.000
Intercept	2.453E+12	1	2.453E+12	12983.600	.000
Waktu	1.303E+12	2	6.513E+11	3447.136	.000
Suhu	6685533889	1	6685533889	35.383	.000
Waktu * Suhu	5296067778	2	2648033889	14.015	.001
Error	2267340000	12	188945000.0		
Total	3.770E+12	18			
Corrected Total	1.317E+12	17			

a. R Squared = .998 (Adjusted R Squared = .998)

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	70C - 80C	38544.44444	39464.44954	13154.81651	8209.38316	68879.50572	2.930	8	.019
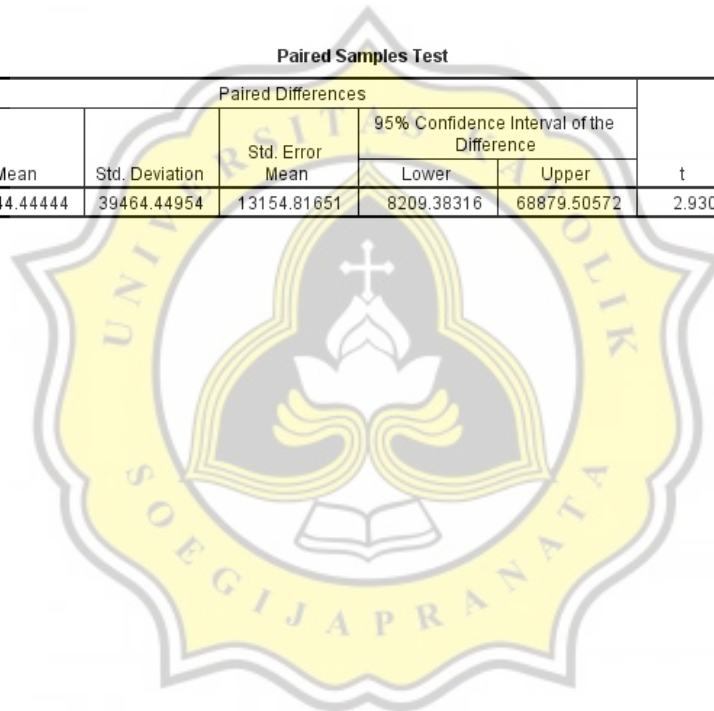
Lampiran 9. Pengolahan Data Analisis Fisiko-Kimiawi dan Mikrobiologi dari Okra *Yogurt*

Tests of Normality

	Formula	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
pH	Kontrol (400 ml susu + 2 g starter)	.213	6	.200*	.868	6	.219
	A (375 ml susu + 25 ml okra + 2 g starter)	.185	6	.200*	.936	6	.626
	B (350 ml susu + 50 ml okra +2 g starter)	.151	6	.200*	.973	6	.909
Sineresis	Kontrol (400 ml susu + 2 g starter)	.212	6	.200*	.885	6	.293
	A (375 ml susu + 25 ml okra + 2 g starter)	.371	6	.010	.702	6	.007
	B (350 ml susu + 50 ml okra +2 g starter)	.327	6	.044	.779	6	.037
Antioksidan	Kontrol (400 ml susu + 2 g starter)	.248	6	.200*	.867	6	.216
	A (375 ml susu + 25 ml okra + 2 g starter)	.362	6	.014	.769	6	.031
	B (350 ml susu + 50 ml okra +2 g starter)	.373	6	.009	.731	6	.013
Viskositas	Kontrol (400 ml susu + 2 g starter)	.370	6	.010	.737	6	.015
	A (375 ml susu + 25 ml okra + 2 g starter)	.348	6	.022	.794	6	.052
	B (350 ml susu + 50 ml okra +2 g starter)	.251	6	.200*	.893	6	.333
CFU_4	Kontrol (400 ml susu + 2 g starter)	.192	6	.200*	.892	6	.327
	A (375 ml susu + 25 ml okra + 2 g starter)	.173	6	.200*	.949	6	.734
	B (350 ml susu + 50 ml okra +2 g starter)	.177	6	.200*	.949	6	.735

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
pH	2.317	2	15	.133
Sineresis	2.970	2	15	.082
Antioksidan	12.156	2	15	.001
Viskositas	1.247	2	15	.315
CFU_4	.273	2	15	.765

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
pH	.019	2	15	.982
Sineresis	.852	2	15	.446
Antioksidan	6.576	2	15	.009
Viskositas	.954	2	15	.407
CFU_4	.050	2	15	.951

pH

Duncan[a]

Formula	N	Subset for alpha = 0.05
		1
A (375 ml susu + 25 ml okra + 2 g starter)	6	4.6125
Kontrol (400 ml susu + 2 g starter)	6	4.6475
B (350 ml susu + 50 ml okra +2 g starter)	6	4.6950
Sig.		.122

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

pH

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05	
		1	2
Umur simpan hari 0	6	4.5783	
Umur simpan hari 7	6	4.6342	
Umur simpan hari 14	6		4.7425
Sig.		.081	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Sineresis

Duncan[a]

Formula	N	Subset for alpha = 0.05	
		1	2
B (350 ml susu + 50 ml okra +2 g starter)	6	31.99704	
A (375 ml susu + 25 ml okra + 2 g starter)	6		40.33609
Kontrol (400 ml susu + 2 g starter)	6		45.54940
Sig.		1.000	.202

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Sineresis

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05	
		1	2
Umur simpan hari 0	6	31.03541	
Umur simpan hari 7	6		42.07334
Umur simpan hari 14	6		44.77379
Sig.		1.000	.475

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Viskositas

Duncan[a]

Formula	N	Subset for alpha = 0.05	
		1	2
Kontrol (400 ml susu + 2 g starter)	6	319.3125	
A (375 ml susu + 25 ml okra + 2 g starter)	6	535.9417	535.9417
B (350 ml susu + 50 ml okra +2 g starter)	6		678.2125
Sig.		.078	.233

Means for groups in homogeneous subsets are displayed.

　　a. Uses Harmonic Mean Sample Size = 6.000.

Viskositas

Duncan[a]

Umur Simpan	N	Subset for alpha = 0.05	
		1	2
Umur simpan hari 14	6	359.0083	
Umur simpan hari 7	6	427.4000	
Umur simpan hari 0	6		747.0583
Sig.		.512	1.000

Means for groups in homogeneous subsets are displayed.

　　a. Uses Harmonic Mean Sample Size = 6.000.

Antioksidan

Duncan[a]

Formula	N	Subset for alpha = 0.05	
		1	2
Kontrol (400 ml susu + 2 g starter)	6	3.86861	
A (375 ml susu + 25 ml okra + 2 g starter)	6	5.33961	
B (350 ml susu + 50 ml okra +2 g starter)	6		8.47375
Sig.		.269	1.000

Means for groups in homogeneous subsets are displayed.

　　a. Uses Harmonic Mean Sample Size = 6.000.

Antioksidan

Duncan[a]

Umur Simpan	N	Subset for alpha = 0.05	
		1	2
Umur simpan hari 14	6	4.55557	
Umur simpan hari 7	6	4.78599	
Umur simpan hari 0	6		8.34041
Sig.		.870	1.000

Means for groups in homogeneous subsets are displayed.

　　a. Uses Harmonic Mean Sample Size = 6.000.

CFU_4

Duncan[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
Kontrol (400 ml susu + 2 g starter)	6	6641666.67		
A (375 ml susu + 25 ml okra + 2 g starter)	6		10391666.67	
B (350 ml susu + 50 ml okra +2 g starter)	6			15158333.33
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

CFU_4

Duncan[a]

Umur Simpan	N	Subset for alpha = 0.05
		1
Umur simpan hari 14	6	8791666.67
Umur simpan hari 7	6	10558333.33
Umur simpan hari 0	6	12841666.67
Sig.		.103

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.
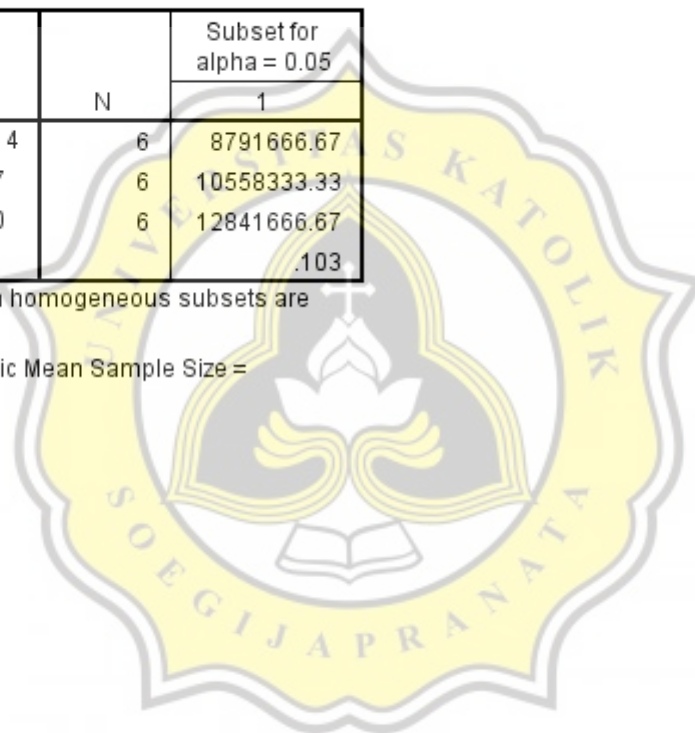
Lampiran 10. Pengolahan Data Analisis Fisiko-Kimiawi dan Mikrobiologi Okra *Yogurt* Bubuk

Tests of Normality

	Formula	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
pH	Kontrol (400 ml susu + 2 g starter)	.239	6	.200*	.897	6	.354
	A (375 ml susu + 25 ml okra + 2 g starter)	.167	6	.200*	.941	6	.670
	B (350 ml susu + 50 ml okra + 2 g starter)	.129	6	.200*	.991	6	.991
Sineresis	Kontrol (400 ml susu + 2 g starter)	.130	6	.200*	.987	6	.981
	A (375 ml susu + 25 ml okra + 2 g starter)	.242	6	.200*	.887	6	.303
	B (350 ml susu + 50 ml okra + 2 g starter)	.246	6	.200*	.888	6	.308
Antioksidan	Kontrol (400 ml susu + 2 g starter)	.366	6	.012	.755	6	.022
	A (375 ml susu + 25 ml okra + 2 g starter)	.346	6	.024	.737	6	.015
	B (350 ml susu + 50 ml okra + 2 g starter)	.361	6	.014	.697	6	.006
Viskositas	Kontrol (400 ml susu + 2 g starter)	.196	6	.200*	.920	6	.506
	A (375 ml susu + 25 ml okra + 2 g starter)	.199	6	.200*	.898	6	.364
	B (350 ml susu + 50 ml okra + 2 g starter)	.175	6	.200*	.926	6	.550
CFU_3	Kontrol (400 ml susu + 2 g starter)	.169	6	.200*	.973	6	.913
	A (375 ml susu + 25 ml okra + 2 g starter)	.189	6	.200*	.915	6	.469
	B (350 ml susu + 50 ml okra + 2 g starter)	.190	6	.200*	.935	6	.622
CFU_4	Kontrol (400 ml susu + 2 g starter)	.187	6	.200*	.935	6	.617
	A (375 ml susu + 25 ml okra + 2 g starter)	.201	6	.200*	.882	6	.280
	B (350 ml susu + 50 ml okra + 2 g starter)	.175	6	.200*	.924	6	.532

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
pH	1.361	2	15	.286
Sineresis	2.141	2	15	.152
Antioksidan	.961	2	15	.405
Viskositas	5.485	2	15	.016
CFU_3	.527	2	15	.601
CFU_4	.158	2	15	.855

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
pH	2.087	2	15	.159
Sineresis	.009	2	15	.992
Antioksidan	.087	2	15	.917
Viskositas	.036	2	15	.964
CFU_3	.013	2	15	.987
CFU_4	.007	2	15	.994

pH

Duncan[a]

Formula	N	Subset for alpha = 0.05	
		1	2
A (375 ml susu + 25 ml okra + 2 g starter)	6	4.9350	
B (350 ml susu + 50 ml okra + 2 g starter)	6	4.9833	4.9833
Kontrol (400 ml susu + 2 g starter)	6		5.0217
Sig.		.127	.219

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

pH

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05	
		1	2
Umur simpan hari 0	6	4.9292	
Umur simpan hari 7	6	4.9742	
Umur simpan hari 14	6		5.0367
Sig.		.091	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Sineresis

Duncan[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
B (350 ml susu + 50 ml okra + 2 g starter)	6	16.44296		
A (375 ml susu + 25 ml okra + 2 g starter)	6		30.98631	
Kontrol (400 ml susu + 2 g starter)	6			42.10040
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Sineresis

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05
		1
Umur simpan hari 0	6	28.64025
Umur simpan hari 7	6	29.57081
Umur simpan hari 14	6	31.31861
Sig.		.709

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Antioksidan

Duncan[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
Kontrol (400 ml susu + 2 g starter)	6	17.41885		
A (375 ml susu + 25 ml okra + 2 g starter)	6		23.44518	
B (350 ml susu + 50 ml okra + 2 g starter)	6			33.54912
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Antioksidan

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05
		1
Umur simpan hari 14	6	19.70041
Umur simpan hari 7	6	27.13525
Umur simpan hari 0	6	27.57749
Sig.		.096

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Viskositas

Duncan[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
Kontrol (400 ml susu + 2 g starter)	6	19.67500		
A (375 ml susu + 25 ml okra + 2 g starter)	6		409.85000	
B (350 ml susu + 50 ml okra + 2 g starter)	6			526.74167
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Viskositas

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05
		1
Umur simpan hari 14	6	305.99167
Umur simpan hari 7	6	318.31667
Umur simpan hari 0	6	331.95833
Sig.		.860

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

CFU_3

Duncan[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
Kontrol (400 ml susu + 2 g starter)	6	2185833.33		
A (375 ml susu + 25 ml okra + 2 g starter)	6		2670833.33	
B (350 ml susu + 50 ml okra + 2 g starter)	6			2870000.00
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 6.000.

CFU_3

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05
		1
Umur simpan hari 14	6	2463333.33
Umur simpan hari 7	6	2601666.67
Umur simpan hari 0	6	2661666.67
Sig.		.329

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 6.000.

CFU_4

Duncan[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
Kontrol (400 ml susu + 2 g starter)	6	8775000.00		
A (375 ml susu + 25 ml okra + 2 g starter)	6		11916666.67	
B (350 ml susu + 50 ml okra + 2 g starter)	6			15816666.67
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 6.000.

CFU_4

Duncan[a]

Umur_Simpan	N	Subset for alpha = 0.05
		1
Umur simpan hari 14	6	11100000.00
Umur simpan hari 7	6	12258333.33
Umur simpan hari 0	6	13150000.00
Sig.		.304

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 6.000.

Lampiran 11. Pengolahan Data Analisis Sensori Metode *Rating*

Test Statistics[a,b]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Chi-Square	37.342	11.323	13.853	24.334	9.754	29.436
df	2	2	2	2	2	2
Asymp. Sig.	.000	.003	.001	.000	.008	.000

a. Kruskal Wallis Test

b. Grouping Variable: Formula

Beda nyata dengan uji *Mann-Whitney* formula Kontrol dan A:

Test Statistics[a]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Mann-Whitney U	146.500	338.000	380.000	295.500	274.000	276.000
Wilcoxon W	611.500	803.000	845.000	760.500	739.000	741.000
Z	-4.705	-1.733	-1.100	-2.408	-2.721	-2.743
Asymp. Sig. (2-tailed)	.000	.083	.271	.016	.007	.006

a. Grouping Variable: Formula

Beda nyata dengan uji *Mann-Whitney* formula A dan B:

Test Statistics[a]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Mann-Whitney U	277.000	322.000	273.500	266.000	423.500	248.500
Wilcoxon W	742.000	787.000	738.500	731.000	888.500	713.500
Z	-2.665	-1.949	-2.740	-2.812	-.411	-3.111
Asymp. Sig. (2-tailed)	.008	.051	.006	.005	.681	.002

a. Grouping Variable: Formula

Beda nyata dengan uji *Mann-Whitney* formula Kontrol dan B:

Test Statistics[a]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Mann-Whitney U	98.500	240.000	225.500	135.500	275.500	108.000
Wilcoxon W	563.500	705.000	690.500	600.500	740.500	573.000
Z	-5.396	-3.197	-3.445	-4.786	-2.660	-5.194
Asymp. Sig. (2-tailed)	.000	.001	.001	.000	.008	.000

a. Grouping Variable: Formula

Lampiran 12. Pengolahan Data Analisis Sensori Metode *Ranking*

Test Statistics[a,b]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Chi-Square	38.343	19.059	12.114	29.871	19.939	30.838
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.002	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: Formula

Beda nyata dengan uji *Mann-Whitney* formula Kontrol dan A:

Test Statistics[a]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Mann-Whitney U	159.000	381.000	363.000	246.000	205.000	253.000
Wilcoxon W	624.000	846.000	828.000	711.000	670.000	718.000
Z	-4.485	-1.055	-1.327	-3.116	-3.742	-3.034
Asymp. Sig. (2-tailed)	.000	.292	.185	.002	.000	.002

a. Grouping Variable: Formula

Beda nyata dengan uji *Mann-Whitney* formula A dan B:

Test Statistics[a]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Mann-Whitney U	213.000	199.000	287.000	222.500	342.500	213.500
Wilcoxon W	678.000	664.000	752.000	687.500	807.500	678.500
Z	-3.639	-3.823	-2.474	-3.482	-1.644	-3.607
Asymp. Sig. (2-tailed)	.000	.000	.013	.000	.100	.000

a. Grouping Variable: Formula

Beda nyata dengan uji *Mann-Whitney* formula Kontrol dan B:

Test Statistics[a]

	Warna	Tingkat_Keas aman	Tekstur	Rasa	Aroma	Overall
Mann-Whitney U	105.000	208.000	237.500	126.000	202.000	119.000
Wilcoxon W	570.000	673.000	702.500	591.000	667.000	584.000
Z	-5.288	-3.675	-3.219	-4.937	-3.786	-5.006
Asymp. Sig. (2-tailed)	.000	.000	.001	.000	.000	.000

a. Grouping Variable: Formula

Report #10581884

PENDAHULUAN Latar BelakangPangan fungsional adalah makanan yang dapat dikonsumsi sebagai bagian dari pola makanan normal, dengan menambahkan bahan-bahan lain yang memiliki nilai kesehatan, sehingga makanan tersebut memiliki manfaat yang mempengaruhi satu atau lebih fungsi target dalam tubuh dalam peningkatan kesehatan dan/atau mengurangi resiko penyakit (Howlett, 2008). Pangan fungsional dapat mengandung mineral tertentu, vitamin, serat pangan, asam lemak dan adanya tambahan zat aktif biologis seperti fitokimia yang dapat mendukung pertumbuhan kultur mikroba (Garba, 2014). Mikroorganisme hidup yang memiliki karakteristik fungsional, dapat memberi manfaat kesehatan bagi konsumen (Palou et al., 2014). Peran mikroorganisme pada produk pangan fungsional salah satunya adalah pada produk fermentasi berbasis susu diantaranya yaitu yogurt, kefir, dan buttermilk (Tamime & Robinson, 2000). Yogurt merupakan salah satu produk fermentasi berbasis susu dengan bantuan bakteri asam laktat seperti Lactococcus lactis, Lactobacillus species, Streptococcus thermophilus, Bifidobacterium species, dan Leuconostoc species yang mengubah laktosa menjadi asam laktat dan dipengaruhi oleh kontrol waktu, suhu, dan lingkungan (Smid & Kleerebezem, 2014). Yogurt mengandung komponen biopeptida β-laktoglobulin yang merupakan prekursor