Lampiran 4. Hasil Olahan Data

♣ Data Mentah Hasil Pengujian Mikrobiologi

Perlakuan	Ulangan	Data			
		Bakteri	*E.coli*	Yeast	Jamur
Pasteurisasi	1	53	0	33	0
	2	37	0	37	0
Iradiasi	1	135	100	450	15
	2	143	110	173	20
Pasteurisasi + Iradiasi	1	90	27	65	10
	2	37	20	40	10
Kontrol	1	2190	400	1385	35
	2	210	767	970	40

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
BAKTERI	8	100.0%	0	.0%	8	100.0%
E_COLI	8	100.0%	0	.0%	8	100.0%
YEAST	8	100.0%	0	.0%	8	100.0%
JAMUR	8	100.0%	0	.0%	8	100.0%

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BAKTERI	.456	8	.000	.492	8	.000
E_COLI	.349	8	.005	.719	8	.004
YEAST	.291	8	.045	.764	8	.012
JAMUR	.163	8	.200*	.905	8	.322

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

a. Lilliefors Significance Correction

1. BAKTERI

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
LINT(BAKTERI)	8	100.0%	0	.0%	8	100.0%
TREND(BAKTERI)	8	100.0%	0	.0%	8	100.0%

Descriptives

			Statistic	Std. Error
LINT(BAKTERI)	Mean		103.5625	21.49407
	95% Confidence Interval for Mean	Lower Bound	52.7371	
		Upper Bound	154.3879	
	5% Trimmed Mean		101.3472	
	Median		106.7500	
	Variance		3695.960	
	Std. Deviation		60.79441	
	Minimum		37.00	
	Maximum		210.00	
	Range		173.00	
	Interquartile Range		100.0000	
	Skewness		.496	.752
	Kurtosis		-.439	1.481
TREND(BAKTERI)	Mean		106.1988	21.99914
	95% Confidence Interval for Mean	Lower Bound	54.1791	
		Upper Bound	158.2185	
	5% Trimmed Mean		104.2764	
	Median		112.5000	
	Variance		3871.698	
	Std. Deviation		62.22297	
	Minimum		37.00	
	Maximum		210.00	
	Range		173.00	
	Interquartile Range		103.1926	
	Skewness		.341	.752
	Kurtosis		-.904	1.481

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LINT(BAKTERI)	.172	8	.200*	.922	8	.447
TREND(BAKTERI)	.179	8	.200*	.910	8	.351

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

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

BAKTERI

Levene Statistic	df1	df2	Sig.
7.3E+16	3	4	.000

ANOVA

BAKTERI

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23398.138	3	7799.379	8.423	.033
Within Groups	3703.734	4	925.934		
Total	27101.872	7			

Post Hoc Tests
Homogeneous Subsets

BAKTERI

Duncan[a]

		Subset for alpha = .05		
PERLAKUA	N	1	2	3
pasteurisasi	2	45.0000		
pasteurisasi dan iradiasi	2	63.5000	63.5000	
iradiasi	2		139.0000	139.0000
kontrol	2			177.2950
Sig.		.576	.068	.277

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

2. YEAST

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
YEAST1	8	100.0%	0	.0%	8	100.0%

Descriptives

			Statistic	Std. Error
YEAST1	Mean		16.1176	4.38094
	95% Confidence Interval for Mean	Lower Bound	5.7583	
		Upper Bound	26.4769	
	5% Trimmed Mean		15.5218	
	Median		10.6076	
	Variance		153.541	
	Std. Deviation		12.39117	
	Minimum		5.74	
	Maximum		37.22	
	Range		31.47	
	Interquartile Range		22.5187	
	Skewness		.931	.752
	Kurtosis		-.755	1.481

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
YEAST1	.242	8	.186	.830	8	.059

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

YEAST1

Levene Statistic	df1	df2	Sig.
4.3E+17	3	4	.000

ANOVA

YEAST1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1022.309	3	340.770	25.974	.004
Within Groups	52.478	4	13.119		
Total	1074.787	7			

Post Hoc Tests
Homogeneous Subsets

YEAST1

Duncan[a]

		Subset for alpha = .05		
PERLAKUA	N	1	2	3
pasteurisasi	2	5.9137		
pasteurisasi dan iradiasi	2	7.1934	7.1934	
iradiasi	2		17.1831	
kontrol	2			34.1802
Sig.		.742	.051	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

3. JAMUR

Test of Homogeneity of Variances

JAMUR

Levene Statistic	df1	df2	Sig.
1.2E+16	3	4	.000

ANOVA

JAMUR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1512.500	3	504.167	80.667	.000
Within Groups	25.000	4	6.250		
Total	1537.500	7			

Post Hoc Tests
Homogeneous Subsets

JAMUR

Duncan[a]

PERLAKUA	N	Subset for alpha = .05			
		1	2	3	4
pasteurisasi	2	.0000			
pasteurisasi dan iradiasi	2		10.0000		
iradiasi	2			17.5000	
kontrol	2				37.5000
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

4. E. coli

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PP	8	100.0%	0	.0%	8	100.0%

Descriptives

			Statistic	Std. Error
PP	Mean		8.2873	2.5639
	95% Confidence Interval for Mean	Lower Bound	2.2246	
		Upper Bound	14.3501	
	5% Trimmed Mean		8.0970	
	Median		7.5981	
	Variance		52.590	
	Std. Deviation		7.2519	
	Minimum		.00	
	Maximum		20.00	
	Range		20.00	
	Interquartile Range		13.6107	
	Skewness		.441	.752
	Kurtosis		-.884	1.481

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PP	.165	8	.200*	.934	8	.518

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances[a,b]

a. Test of homogeneity of variances cannot be performed for PP because the sum of caseweights is less than the number of groups.

b. Test of homogeneity of variances cannot be performed for PP33 because the sum of caseweights is less than the number of groups.

Post Hoc Tests
Homogeneous Subsets

PP

Duncan[a]

PERLAKUA	N	Subset for alpha = .05			
		1	2	3	4
pasteurisasi	2	.0000			
pasteurisasi dan iradiasi	2		4.8341		
iradiasi	2			10.2440	
kontrol	2				18.0711
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

Lampiran 2. Standar Nasional Indonesia (SNI) 01-4867.3-1998

No.	Jenis Uji	Satuan	Persyaratan
1	Keadaan	-	
1.1	Warna	-	Normal
1.2	Bau	-	Normal, khas apel
1.3	Rasa	-	Normal, khas apel
2.	pH	-	Maks. 4
3.	Padatan terlarut	b/b	Min. 10
4	Etanol	b/b	Maks. 0,5
5	Asam yang mudah menguap (sebagai asam asetat)	b/v	Maks. 0,04
6.	Sulfur dioksida (SO_2)	mg/kg	Maks. 10
7	Abu yang tidak larut dalam asam	mg/kg	Maks. 20
8.	Bahan tambahan makanan		
8.1	Pengawet	-	Sesuai SNI 01-0222-1995
8.2	Pewarna tambahan	-	Sesuai SNI 01-0222-1995
9	Cemaran logam		
9.1	Timbal (Pb)	mg/kg	Maks. 0,3
9.2	Tembaga (Cu)	mg/kg	Maks. 5,0
9.3	Seng (Zn)	mg/kg	Maks. 5,0
9.4	Timah (Sn)	mg/kg	Maks. 40,0 / 250**
9.5	Besi (Fe)	mg/kg	Maks 10,0
10	Cemaran arsen (As)	mg/kg	Maks. 0,2
11	Cemaran mikroba		
11.1	Angka lempeng total	Koloni/ml	Maks. 2.10^2
11.2	Bakteri bentuk coli	APM/ml	Maks 20
11.3	*E. coli*	APM/ml	<3
11.4	Kapang	Koloni/ml	Maks 50
11.5	Khamir	Koloni/ml	Maks 50

Keterangan : ** = untuk yang dikemas dalam kaleng

Lampiran 5. Estimasi Biaya Alat Produksi Sari Buah Apel

Nama Alat	Kapasitas	Ukuran	Biaya
Alat Pencuci apel			
♣ *Rotary Washer*	45 kg / menit	-	Rp. 3.500.000,00
Alat Penggiling			
♣ *Grating mill*	50 kg /menit	-	Rp. 550.000,00
Alat pengepres			
♣ *Hydraulik press*	-	2,25m^2	Rp. 7.500.000,00
♣ Rak plastik	-	1,5 m x 1,5 m x 0,25 m	@ Rp. 500.000,00
Alat Filtrasi			
♣ Kain nylon	-	1m	Rp. 4.500,00
Alat pasteurisasi			
♣ *Batch Retort*	100 liter	-	Rp. 35.000.000,00
Tanki *filler*	50 liter	-	Rp. 6.000.000,00
Alat Caping	-	3 sisi	Rp. 450.000,00