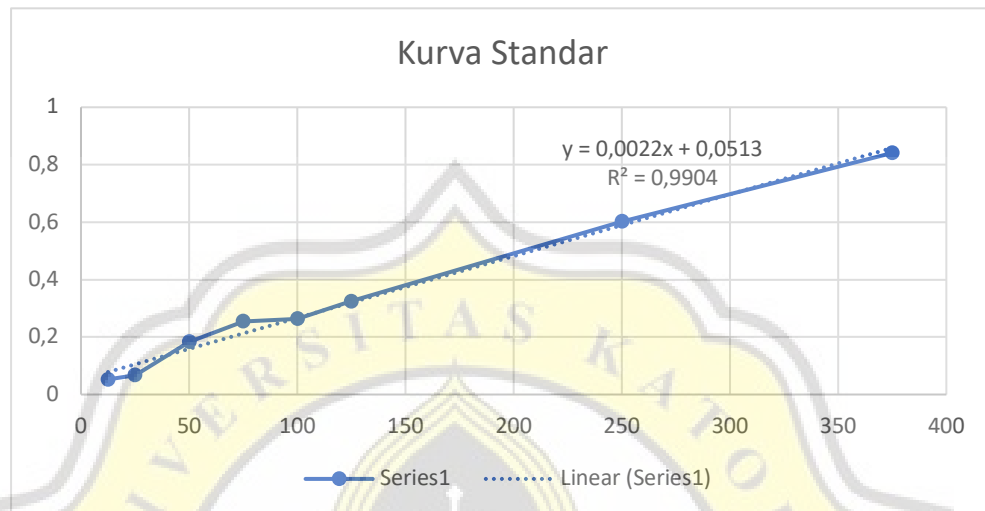


## 8. LAMPIRAN

### 8.1. Lampiran Data

Lampiran 1. Kurva Standar BSA



Lampiran 2. Output Uji Normalitas Data

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Rendemen	.153	27	.107	.967	27	.524
BeratGelatin	.143	27	.169	.971	27	.630
BeratBubuk	.230	27	.001	.867	27	.003
KekuatanGel	.160	27	.075	.910	27	.023
BeratKeringProtein	.120	27	.200*	.939	27	.116
KadarAirGelatin	.113	27	.200*	.979	27	.849
WarnaL	.159	27	.079	.921	27	.042
pHSebelum	.107	27	.200*	.966	27	.502
pHSesudah	.178	27	.028	.873	27	.003
Kehijauan	.161	27	.071	.941	27	.130
Kebiruan	.184	27	.020	.925	27	.051
KadarAirBubuk	.107	27	.200*	.942	27	.133
KadarpHBubuk	.105	27	.200*	.970	27	.593

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

a. Lilliefors Significance Correction

Lampiran 3. Uji Normalitas Manual

Indikator	Kolm-Smirnov Hitung	Kolm-Smirnov Tabel	Kesimpulan
Berat Bubuk (n=27)	0,624	0,953	Sebaran Data Normal
Kekuatan Gel (n=27)	0,372	0,953	Sebaran Data Normal
pH Sesudah (n=27)	0,462	0,953	Sebaran Data Normal

Lampiran 4. Output Uji Homogenitas Data terhadap Konsentrasi Asam Jeruk Nipis

**Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
Rendemen	.566	2	24	.575
BeratGelatin	.447	2	24	.645
BeratBubuk	7.965	2	24	.002
KekuatanGel	2.990	2	24	.069
BeratKeringProtein	3.083	2	24	.064
KadarAirGelatin	.195	2	24	.824
WarnaL	.591	2	24	.562
pHSebelum	1.918	2	24	.169
pHSesudah	.523	2	24	.599
Kehijauan	.550	2	24	.584
Kebiruan	1.614	2	24	.220
KadarAirBubuk	.847	2	24	.441
KadarpHBubuk	.520	2	24	.601

Lampiran 5. *Output* Uji Homogenitas Manual terhadap Konsentrasi Asam Jeruk Nipis

Parameter	Levene Hitung	Levene Tabel	Kesimpulan
Berat Bubuk (df=9)	1,073	16,919	Varian Homogen

Lampiran 6. *Output* Uji Homogenitas Data terhadap Lama Waktu Hidrolisis

**Test of Homogeneity of Variances**

	Levene Statistic	df1	df2	Sig.
Rendemen	.893	2	24	.423
BeratGelatin	.780	2	24	.470
BeratBubuk	4.709	2	24	.019
KekuatanGel	2.926	2	24	.073
BeratKeringProtein	.962	2	24	.396
KadarAirGelatin	1.511	2	24	.241
WarnaL	4.098	2	24	.029
pHSebelum	.019	2	24	.981
pHSesudah	14.741	2	24	.000
Kehijauan	1.112	2	24	.345
Kebiruan	3.344	2	24	.052
KadarAirBubuk	2.962	2	24	.071
KadarpHBubuk	1.823	2	24	.183

Lampiran 7. *Output* Uji Homogenitas Manual terhadap Lama Waktu Hidrolisis

Parameter	Levene Hitung	Levene Tabel	Kesimpulan
Berat Bubuk (df=9)	1,276	16,919	Varian Homogen
Warna L* (df=9)	2,102	16,919	Varian Homogen
pH Sesudah (df=9)	2,953	16,919	Varian Homogen

Lampiran 8. *Output* Posthoc One Way ANOVA terhadap Asam 4%**Rendemen**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	1.2733
24jam	3	1.3167
6jam	3	1.3633
Sig.		.524

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratGelatin**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	190.7733
24jam	3	197.5800
6jam	3	204.7767
Sig.		.511

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratBubuk**Duncan<sup>a</sup>

Waktu	N	Subset for alpha = 0.05		
		1	2	3
6jam	3	3.1800		
16jam	3		4.1800	
24jam	3			4.9500
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KekuatanGel

Tukey HSD<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
16jam	3	24.0480	
24jam	3	24.8207	
6jam	3		34.6323
Sig.		.956	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### BeratKeringProtein

Tukey B<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	1.3600	
16jam	3	1.6800	
24jam	3		2.6167

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KadarAirGelatin

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
16jam	3	97.3233	
6jam	3	97.5067	
24jam	3	97.5233	
Sig.			.491

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**WarnaL**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
6jam	3	50.3400
16jam	3	52.1300
24jam	3	53.8833
Sig.		.421

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**pHSebelum**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	4.6200
6jam	3	4.6467
24jam	3	4.7133
Sig.		.133

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**pHSesudah**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
24jam	3	6.0967
6jam	3	6.3033
16jam	3	6.3300
Sig.		.487

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### Kehijauan

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
6jam	3	77.8100	
16jam	3	78.6067	
24jam	3	78.8667	
Sig.			.193

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### Kebiruan

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	64.7600	
16jam	3	66.4700	66.4700
24jam	3		68.5533
Sig.		.187	.119

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size =  
3.000.

### KadarAirBubuk

Tukey HSD<sup>a</sup>

Waktu	N	Subset for alpha = 0.05		
		1	2	3
6jam	3	.1067		
16jam	3		.1700	
24jam	3			.2067
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KadarpHBubuk

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
24jam	3	6.9267
6jam	3	7.1733
16jam	3	7.2767
Sig.		.464

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

Lampiran 9. *Output* Posthoc One Way ANOVA terhadap Asam 5%

### Rendemen

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
24jam	3	1.3367
16jam	3	1.3400
6jam	3	1.4833
Sig.		.191

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.



**BeratGelatin**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
24jam	3	200.8400	
16jam	3	200.8900	
6jam	3	222.2833	
Sig.			.214

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratBubuk**Duncan<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	3.7633	
24jam	3		4.6133
16jam	3		4.7333
Sig.		1.000	.713

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size =  
3.000.

**KekuatanGel**Tukey HSD<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
16jam	3	21.8613	
24jam	3	23.7640	23.7640
6jam	3		29.8907
Sig.		.653	.059

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size =  
3.000.

**BeratKeringProtein**Tukey B<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	2.2100	
16jam	3		3.0833
24jam	3		3.4267

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**KadarAirGelatin**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
16jam	3	97.4533	
24jam	3	97.5967	
6jam	3	97.7300	
Sig.			.302

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**WarnaL**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	49.2833	
24jam	3		54.1633
16jam	3		56.4267
Sig.		1.000	.186

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**pHSebelum**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	4.4633
6jam	3	4.4867
24jam	3	4.5400
Sig.		.264

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**pHSesudah**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
24jam	3	6.0900
16jam	3	6.2600
6jam	3	6.3400
Sig.		.579

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**Kehijauan**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
6jam	3	78.2033
16jam	3	78.4200
24jam	3	79.4833
Sig.		.105

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### Kebiruan

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	66.6067
6jam	3	67.2200
24jam	3	69.0200
Sig.		.278

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### KadarAirBubuk

Tukey HSD<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
6jam	3	.1567
24jam	3	.1933
16jam	3	.2167
Sig.		.084

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### KadarpHBubuk

Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
24jam	3	6.7333
16jam	3	6.8300
6jam	3	7.0900
Sig.		.420

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

Lampiran 10. *Output* Posthoc One Way ANOVA terhadap Asam 6%**Rendemen**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	1.2700
24jam	3	1.4000
6jam	3	1.4067
Sig.		.194

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratGelatin**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
16jam	3	190.4567
24jam	3	210.0967
6jam	3	211.0033
Sig.		.199

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratBubuk**Duncan<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
6jam	3	4.7733	
16jam	3	4.8767	
24jam	3	5.0133	
Sig.			.204

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**KekuatanGel**Tukey HSD<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
16jam	3	23.5100	
24jam	3	29.3263	
6jam	3		39.7030
Sig.		.065	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**BeratKeringProtein**Tukey B<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
6jam	3	4.0667	
16jam	3	4.1633	
24jam	3	4.4333	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**KadarAirGelatin**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
6jam	3	97.4567	
24jam	3	97.5067	
16jam	3	97.5633	
Sig.			.808

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**WarnaL**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
16jam	3	48.5300	
6jam	3	49.6000	
24jam	3		54.1667
Sig.		.478	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**pHSebelum**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
6jam	3	4.2933	
16jam	3	4.3500	
24jam	3	4.4100	
Sig.			.488

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**pHSesudah**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05
		1
24jam	3	6.0433
6jam	3	6.2433
16jam	3	6.4167
Sig.		.220

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**Kehijauan**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05		
		1	2	3
6jam	3	78.0633		
16jam	3		78.8567	
24jam	3			79.5500
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Kebiruan**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	65.8633	
16jam	3	66.8733	
24jam	3		68.8633
Sig.		.173	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size =  
3.000.



**KadarAirBubuk**Tukey HSD<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	2
6jam	3	.1967	
24jam	3		.2433
16jam	3		.2567
Sig.		1.000	.519

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**KadarpHBubuk**Student-Newman-Keuls<sup>a</sup>

Waktu	N	Subset for alpha = 0.05	
		1	
16jam	3	6.6133	
24jam	3	6.6767	
6jam	3	6.8667	
Sig.			.423

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 11. *Output* Posthoc One Way ANOVA terhadap Lama Waktu 6 Jam

**Rendemen**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
4%	3	1.3633	
6%	3	1.4067	
5%	3	1.4833	
Sig.			.362

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**BeratGelatin**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
4%	3	204.7767	
6%	3	211.0033	
5%	3	222.2833	
Sig.			.381

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratBubuk**Duncan<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
4%	3	3.1800	
5%	3	3.7633	
6%	3		4.7733
Sig.		.067	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**KekuatanGel**Tukey HSD<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
5%	3	29.8900	
4%	3	34.6300	34.6300
6%	3		39.7000
Sig.		.194	.162

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### BeratKeringProtein

Tukey B<sup>a</sup>

Asam	N	Subset for alpha = 0.05		
		1	2	3
4%	3	1.3600		
5%	3		2.2100	
6%	3			4.0667

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KadarAirGel

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
6%	3	97.4567
4%	3	97.5067
5%	3	97.7300
Sig.		.134

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### WarnaL

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
5%	3	49.2833
6%	3	49.6000
4%	3	50.3400
Sig.		.856

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### pHSebelum

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05		
		1	2	3
6%	3	4.2933		
5%	3		4.4867	
4%	3			4.6467
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### pHSesudah

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
6%	3	6.2433
4%	3	6.3033
5%	3	6.3400
Sig.		.056

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Kehijauan

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
4%	3	77.8100
6%	3	78.0633
5%	3	78.2033
Sig.		.659

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Kebiruan

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
4%	3	64.7600
6%	3	65.8633
5%	3	67.2200
Sig.		.115

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### KadarAirBubuk

Tukey HSD<sup>a</sup>

Asam	N	Subset for alpha = 0.05		
		1	2	3
4%	3	.1067		
5%	3		.1567	
6%	3			.1967
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KadarHBubuk

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
6%	3	6.8667
5%	3	7.0900
4%	3	7.1733
Sig.		.210

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

Lampiran 12. *Output* Posthoc One Way ANOVA terhadap Lama Waktu  
16 Jam

### Rendemen

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
6%	3	1.2700	
4%	3	1.2733	
5%	3	1.3400	
Sig.			.675

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### BeratGelatin

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
6%	3	190.4567	
4%	3	190.7733	
5%	3	200.8900	
Sig.			.690

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**BeratBubuk**Duncan<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
4%	3	4.1800	
5%	3	4.7333	4.7333
6%	3		4.8767
Sig.		.072	.592

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**KekuatanGel**Tukey HSD<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
5%	3	21.8600
6%	3	23.5100
4%	3	24.0467
Sig.		.532

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**BeratKeringProtein**Tukey B<sup>a</sup>

Asam	N	Subset for alpha = 0.05		
		1	2	3
4%	3	1.6800		
5%	3		3.0833	
6%	3			4.1633

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**KadarAirGel**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
4%	3	97.3233
5%	3	97.4533
6%	3	97.5633
Sig.		.588

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**Warnal**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05		
		1	2	3
6%	3	48.5300		
4%	3		52.1300	
5%	3			56.4267
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**pHSebelum**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
6%	3	4.3500	
5%	3	4.4633	4.4633
4%	3		4.6200
Sig.		.202	.095

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size =  
3.000.



**pHSesudah**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
5%	3	6.2600
4%	3	6.3300
6%	3	6.4167
Sig.		.704

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**Kehijauan**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
5%	3	78.4200
4%	3	78.6067
6%	3	78.8567
Sig.		.728

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**Kebiruan**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
4%	3	66.4700
5%	3	66.6067
6%	3	66.8733
Sig.		.966

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**KadarAirBubuk**Tukey HSD<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
4%	3	.1700	
5%	3	.2167	.2167
6%	3		.2567
Sig.		.144	.215

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**KadarpHBubuk**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
6%	3	6.6133	
5%	3	6.8300	
4%	3	7.2767	
Sig.		.151	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 13. *Output* Posthoc One Way ANOVA terhadap Lama Waktu 24 Jam

**Rendemen**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
4%	3	1.3167	
5%	3	1.3367	
6%	3	1.4000	
Sig.		.370	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### BeratGelatin

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
4%	3	197.5800
5%	3	200.8400
6%	3	210.0967
Sig.		.389

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### BeratBubuk

Duncan<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
5%	3	4.6133
4%	3	4.9500
6%	3	5.0133
Sig.		.160

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### KekuatanGel

Tukey HSD<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
5%	3	23.7633
4%	3	24.8200
6%	3	29.3267
Sig.		.149

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### BeratKeringProtein

Tukey B<sup>a</sup>

Asam	N	Subset for alpha = 0.05		
		1	2	3
4%	3	2.6167		
5%	3		3.4267	
6%	3			4.4333

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KadarAirGel

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
6%	3	97.5067
4%	3	97.5233
5%	3	97.5967
Sig.		.760

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### WarnaL

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05
		1
4%	3	53.8833
5%	3	54.1633
6%	3	54.1667
Sig.		.993

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

**pHSebelum**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
6%	3	4.4100	
5%	3	4.5400	
4%	3		4.7133
Sig.		.097	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**pHSesudah**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
6%	3	6.0433	
5%	3	6.0900	
4%	3	6.0967	
Sig.		.984	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Kehijauan**Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
4%	3	78.8667	
5%	3	79.4833	
6%	3	79.5500	
Sig.		.101	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Kebiruan

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
4%	3	68.5533	
6%	3	68.8633	
5%	3	69.0200	
Sig.			.374

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

### KadarAirBubuk

Tukey HSD<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	2
5%	3	.1933	
4%	3	.2067	.2067
6%	3		.2433
Sig.		.636	.091

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### KadarpHBubuk

Student-Newman-Keuls<sup>a</sup>

Asam	N	Subset for alpha = 0.05	
		1	
6%	3	6.6767	
5%	3	6.7333	
4%	3	6.9267	
Sig.			.615

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean  
Sample Size = 3.000.

Lampiran 14. *Output* Two Way ANOVA terhadap Konsentrasi Asam**Rendemen**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
4%	9	1.3178
6%	9	1.3589
5%	9	1.3867
Sig.		.262

Means for groups in homogeneous subsets are displayed.

Based on observed means.  
The error term is Mean Square(Error) = .008.

a. Uses Harmonic Mean  
Sample Size = 9.000.

b. Alpha = .05.

**BeratGelatin**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
4%	9	197.7100
6%	9	203.8522
5%	9	208.0044
Sig.		.275

Means for groups in homogeneous subsets are displayed.

Based on observed means.  
The error term is Mean Square  
(Error) = 188.328.

a. Uses Harmonic Mean  
Sample Size = 9.000.

b. Alpha = .05.

**BeratBubuk**Duncan<sup>a,b</sup>

Asam	N	Subset	
		1	2
4%	9	4.1033	
5%	9	4.3700	
6%	9		4.8878
Sig.		.083	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .095.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

**KekuatanGel**Tukey HSD<sup>a,b</sup>

Asam	N	Subset	
		1	2
5%	9	25.1720	
4%	9	27.8337	27.8337
6%	9		30.8464
Sig.		.138	.085

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 7.881.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.



**BeratKeringProtein**Tukey B<sup>a,b</sup>

Asam	N	Subset		
		1	2	3
4%	9	1.8856		
5%	9		2.9067	
6%	9			4.2211

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .074.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

**KadarAirGel**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
4%	9	97.4511
6%	9	97.5089
5%	9	97.5933
Sig.		.328

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .042.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

**WarnaL**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
6%	9	50.7656
4%	9	52.1178
5%	9	53.2911
Sig.		.087

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 5.595.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

**pHSebelum**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset		
		1	2	3
6%	9	4.3511		
5%	9		4.4967	
4%	9			4.6600
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) = .006.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

**pHSesudah**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
5%	9	6.2300
6%	9	6.2344
4%	9	6.2433
Sig.		.993

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .066.

a. Uses Harmonic Mean  
Sample Size = 9.000.

b. Alpha = .05.

**Kehijauan**Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
4%	9	78.4278
5%	9	78.7022
6%	9	78.8233
Sig.		.287

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .289.

a. Uses Harmonic Mean  
Sample Size = 9.000.

b. Alpha = .05.

### Kebiruan

Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset
		1
4%	9	66.5944
6%	9	67.2000
5%	9	67.6156
Sig.		.278

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1.871.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

### KadarAirBubuk

Tukey HSD<sup>a,b</sup>

Asam	N	Subset		
		1	2	3
4%	9	.1611		
5%	9		.1889	
6%	9			.2322
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) = .000.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

### KadarpHBubuk

Student-Newman-Keuls<sup>a,b</sup>

Asam	N	Subset	
		1	2
6%	9	6.7189	
5%	9	6.8844	6.8844
4%	9		7.1256
Sig.		.259	.107

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .091.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

Lampiran 15. *Output* Two Way ANOVA terhadap Lama Waktu Hidrolisis

### Rendemen

Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset	
		1	2
16jam	9	1.2944	
24jam	9	1.3511	1.3511
6jam	9		1.4178
Sig.		.198	.134

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .008.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

### BeratGelatin

Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset	
		1	2
16jam	9	194.0400	
24jam	9	202.8389	202.8389
6jam	9		212.6878
Sig.		.191	.145

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 188.328.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

### BeratBubuk

Duncan<sup>a,b</sup>

Waktu	N	Subset	
		1	2
6jam	9	3.9056	
16jam	9		4.5967
24jam	9		4.8589
Sig.		1.000	.088

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .095.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.

### KekuatanGel

Tukey HSD<sup>a,b</sup>

Waktu	N	Subset	
		1	2
16jam	9	23.1398	
24jam	9	25.9703	
6jam	9		34.7420
Sig.		.110	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 7.881.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

### BeratKeringProtein

Tukey B<sup>a,b</sup>

Waktu	N	Subset		
		1	2	3
6jam	9	2.5456		
16jam	9		2.9756	
24jam	9			3.4922

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .074.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

### KadarAirGel

Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset	
		1	
16jam	9	97.4467	
24jam	9	97.5422	
6jam	9	97.5644	
Sig.		.459	

Means for groups in homogeneous subsets are displayed.

Based on observed means.  
The error term is Mean Square(Error) = .042.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

### WarnaL

Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset	
		1	2
6jam	9	49.7411	
16jam	9		52.3622
24jam	9		54.0711
Sig.		1.000	.143

Means for groups in homogeneous subsets are displayed.

Based on observed means.  
The error term is Mean Square(Error) = 5.595.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.



**pHSebelum**Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset
		1
6jam	9	4.4756
16jam	9	4.4778
24jam	9	4.5544
Sig.		.120

Means for groups in homogeneous subsets are displayed.

Based on observed means.  
The error term is Mean Square(Error) = .006.

a. Uses Harmonic Mean  
Sample Size = 9.000.

b. Alpha = .05.

**pHSesudah**Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset
		1
24jam	9	6.0767
6jam	9	6.2956
16jam	9	6.3356
Sig.		.112

Means for groups in homogeneous subsets are displayed.

Based on observed means.  
The error term is Mean Square(Error) = .066.

a. Uses Harmonic Mean  
Sample Size = 9.000.

b. Alpha = .05.

### Kehijauan

Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset		
		1	2	3
6jam	9	78.0256		
16jam	9		78.6278	
24jam	9			79.3000
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) = .289.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

### Kebiruan

Student-Newman-Keuls<sup>a,b</sup>

Waktu	N	Subset	
		1	2
6jam	9	65.9478	
16jam	9	66.6500	
24jam	9		68.8122
Sig.		.291	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1.871.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = .05.

**KadarAirBubuk**Tukey HSD<sup>a,b</sup>

Waktu	N	Subset	
		1	2
6jam	9	.1533	
16jam	9		.2144
24jam	9		.2144
Sig.		1.000	1.000

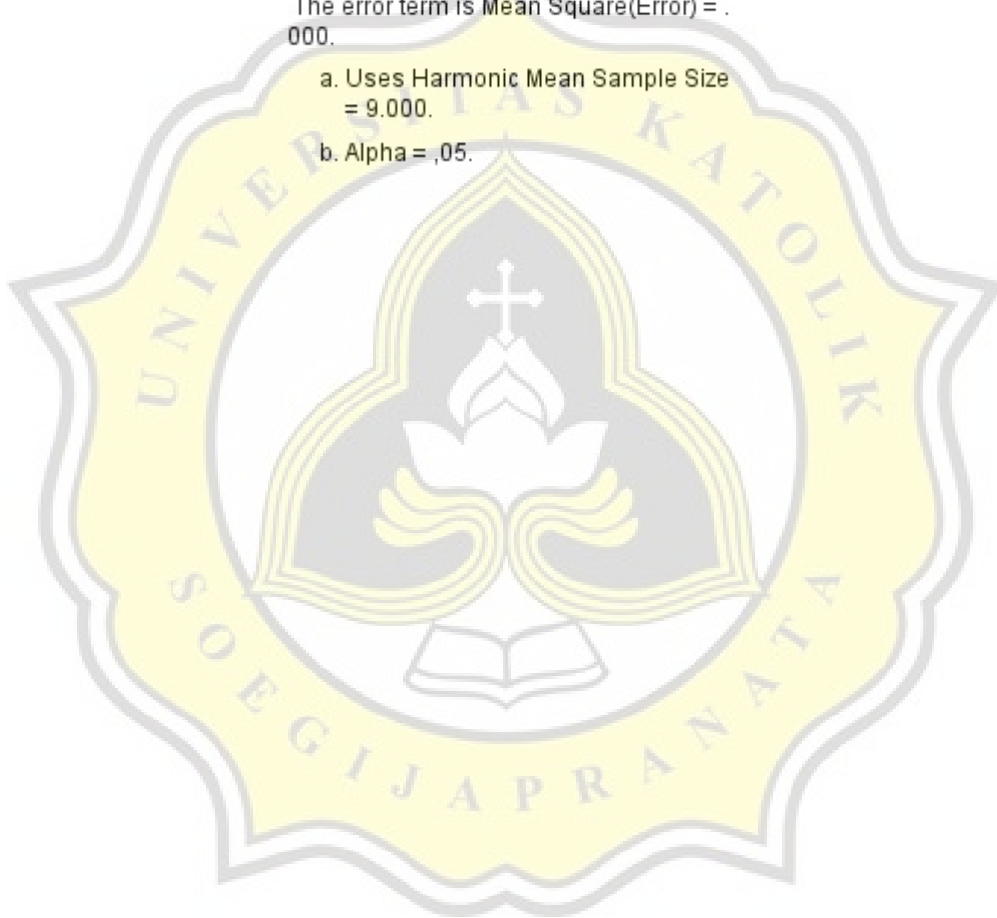
Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .000.

a. Uses Harmonic Mean Sample Size = 9.000.

b. Alpha = ,05.



## Lampiran 16. Uji Korelasi Data

		Correlations													
		Rendemen	BeratGelatin	BeratBubuk	KekuatanGel	BeratKeringProtein	KadarAirGel	WarnaL	pHSebelum	pHSesudah	Kehijauan	Kebiruan	KadarAirBubuk	KadarpHBubuk	
Rendemen	Pearson Correlation	1	1.000**	-.285	-.309	-.061	.478*	-.120	-.160	-.140	-.225	-.130	-.238	.093	
	Sig. (2-tailed)		.000	.150	.117	.764	.012	.551	.424	.486	.258	.518	.231	.643	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
BeratGelatin	Pearson Correlation	1.000**	1	-.282	.308	-.061	.485*	-.119	-.160	-.150	-.225	-.128	-.236	.087	
	Sig. (2-tailed)	.000		.154	.119	.763	.010	.555	.427	.456	.259	.523	.235	.667	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
BeratBubuk	Pearson Correlation	-.285	-.282	1	-.270	.786**	-.189	.301	-.311	-.317	.470*	.401*	.875**	-.525**	
	Sig. (2-tailed)	.150	.154		.174	.000	.346	.127	.115	.107	.013	.038	.000	.005	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
KekuatanGel	Pearson Correlation	.309	.308	-.270	1	.043	.047	-.442*	-.309	.167	-.470*	-.440*	-.353	.221	
	Sig. (2-tailed)	.117	.119	.174		.833	.817	.021	.116	.406	.013	.022	.071	.267	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
BeratKeringProtein	Pearson Correlation	-.061	-.061	.786**	.043	1	-.039	.057	-.684**	-.134	.405*	.324	.810**	-.567**	
	Sig. (2-tailed)	.764	.763	.000	.833		.848	.779	.000	.505	.036	.099	.000	.002	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
KadarAirGel	Pearson Correlation	.478*	.485*	-.189	.047	-.039	1	-.140	-.228	.167	.072	.119	-.118	.061	
	Sig. (2-tailed)	.012	.010	.346	.817	.848		.486	.253	.406	.722	.554	.557	.763	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
WarnaL	Pearson Correlation	-.120	-.119	.301	-.442*	.057	-.140	1	.279	-.492**	.433*	.337	.187	-.248	
	Sig. (2-tailed)	.551	.555	.127	.021	.779	.486		.159	.009	.024	.085	.350	.212	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
pHSebelum	Pearson Correlation	-.160	-.160	-.311	-.309	-.684**	-.228	.279	1	-.158	.042	.092	-.495**	.296	
	Sig. (2-tailed)	.424	.427	.115	.116	.000	.253	.159		.430	.834	.649	.009	.134	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
pHSesudah	Pearson Correlation	-.140	-.150	-.317	.167	-.134	.167	-.492**	-.158	1	-.251	-.215	-.215	.517**	
	Sig. (2-tailed)	.486	.456	.107	.406	.505	.406	.009	.430		.206	.282	.282	.006	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
Kehijauan	Pearson Correlation	-.225	-.225	.470*	-.470*	.405*	.072	.433*	.042	-.251	1	.806**	.438*	-.356	
	Sig. (2-tailed)	.258	.259	.013	.013	.036	.722	.024	.834	.206		.000	.022	.069	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
Kebiruan	Pearson Correlation	-.130	-.128	.401*	-.440*	.324	.119	.337	.092	-.215	.806**	1	.344	-.169	
	Sig. (2-tailed)	.518	.523	.038	.022	.099	.554	.085	.649	.282	.000		.079	.401	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
KadarAirBubuk	Pearson Correlation	-.238	-.236	.875**	-.353	.810**	-.118	.187	-.495**	-.215	.438*	.344	1	-.654**	
	Sig. (2-tailed)	.231	.235	.000	.071	.000	.557	.350	.009	.282	.022	.079		.000	
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	
KadarpHBubuk	Pearson Correlation	.093	.087	-.525**	.221	-.567**	.061	-.248	.296	.517**	-.356	-.169	-.654**	1	
	Sig. (2-tailed)	.643	.667	.005	.267	.002	.763	.212	.134	.006	.069	.401	.000		
	N	27	27	27	27	27	27	27	27	27	27	27	27	27	

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

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

## 8.2. Dokumentasi Kegiatan

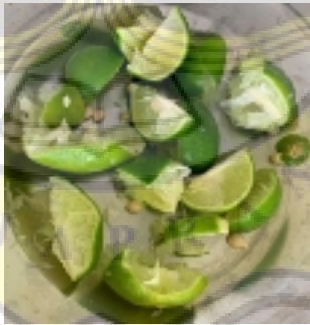
Lampiran 17. Ceker Ayam Sebelum Digiling



Lampiran 18. Sampel Ceker Ayam yang Telah Digiling Kasar



Lampiran 19. Pematongan dan Pemasakan Jeruk Nipis



Lampiran 20. Penimbangan Sampel



Lampiran 21. Uji pH



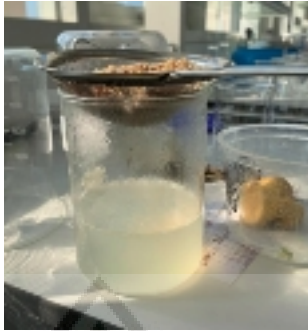
Lampiran 22. Hidrolisis



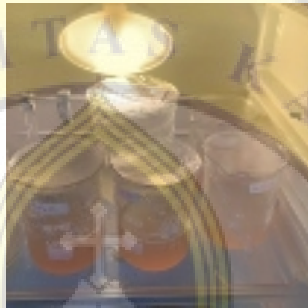
Lampiran 23. Demineralisasi

Lampiran 24. Ekstraksi dengan *Waterbath*

Lampiran 25. Hasil Ekstraksi



Lampiran 26. Pendinginan Gelatin



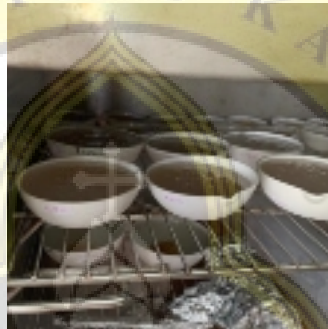
Lampiran 27. Hasil Gelatin

Lampiran 28. Uji Warna dengan *Chromameter*

Lampiran 29. Uji Tekstur dengan *Texture Analyzer*



Lampiran 30. Pengeringan Gelatin dengan Oven



Lampiran 31. Hasil Pengeringan Gelatin

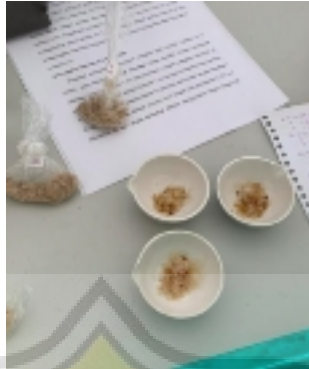


Lampiran 32. Bubuk Kolagen

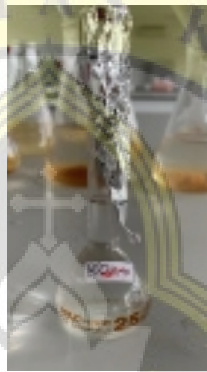




Lampiran 33. Kadar Air Bubuk kolagen



Lampiran 34. Pembuatan Larutan BSA



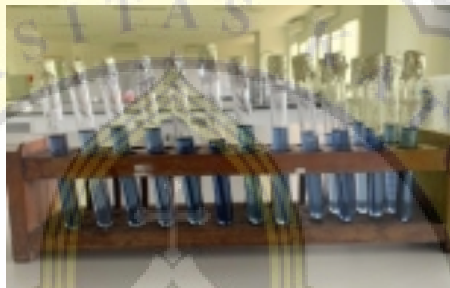
Lampiran 35. Pembuatan Larutan Reagen Lowry



Lampiran 36. Penyaringan dan Pengenceran Sampel Uji Protein



Lampiran 37. Larutan Sampel Uji Protein Metode Lowry



Lampiran 38. Uji Protein dengan Spektrofotometer



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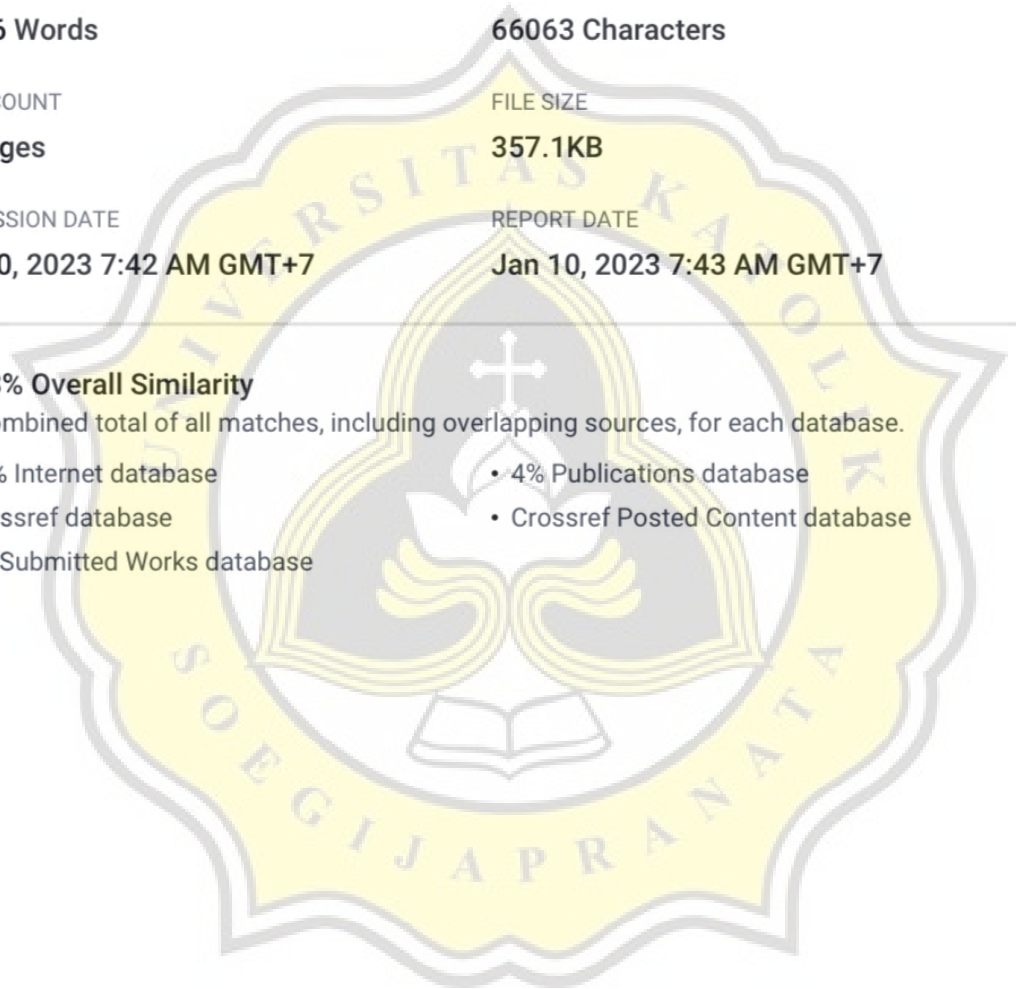
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