

**Lampiran 1. Surat Keterangan Determinasi Tanaman Ceplukan (*Physalis angulata* L).**



**UNIVERSITAS MUHAMMADIYAH SURAKARTA  
FAKULTAS FARMASI**

Terakreditasi "A" SK. BAN. PT. No. : 029/BAN-PT/AK-XI/S1/XI/2008  
Jl. A. Yani Tromol Pos 1 Pabelan, Kartasura Telp. (0271) 717417 - 719483 Fax. 715448 Surakarta 57102  
e-mail : farmasi - ums.ac.id

**SURAT KETERANGAN DETERMINASI**


Sehubungan dengan keperluan determinasi sampel tanaman, maka kami menerangkan bahwa mahasiswa berikut:

Nama : Aris Setiawan  
NIM : K100.060.132  
Fakultas : Farmasi UMS  
Keperluan : Skripsi

Telah melakukan determinasi terhadap *Physalis angulata* L. (Ciplukan) di Laboratorium Biologi Farmasi, Fakultas Farmasi UMS pada Kamis 26 Agustus 2010.

Surakarta, 26 Agustus 2010

Mengetahui,  
Kepala Laboratorium Biologi Farmasi

  
Ratna Yuliani, M.Biotech.St

Penanggung jawab Determinasi  
Laboratorium Biologi Farmasi UMS

  
Hamida Febra Maya Sari S.Si

## Lampiran 1. Lanjutan

SPECIES: *Physalis angulata* L.

### KLASIFIKASI

Divisi : Magnoliophyta  
Kelas : Magnoliopsida  
Anak kelas : Asteridae  
Bangsa : Solanales  
Suku : Solanaceae  
Marga : Physalis  
Jenis : *Physalis angulata* L.

### KUNCI IDENTIFIKASI<sup>3</sup>

1b-2b-3b-4b-12b-13b-14b-17b-18b-19b-20b-21b-22b-23a-24a-25b-26b-27a-28b-29b-30b-31b-403b-404b-405b-414a-415a-416b-417b-418a-419c-420b-421b-422d-426b-428b-429b-433b-434b-435b-436a-437b-438c-441b-442b-**179.Solanaceae-1c-4b-6b-7b-8b-11a-12b-Physalis-1b-2a-Physalis angulata L.**

### SUMBER:

1. Cronquist, A., 1981, *An Integrated System of Classification of Flowering Plants*, Columbia University Press, New York, 477.
2. Anonim, 1978, 1978, *Materia Medika Indonesia*, Jilid 2, Departemen Kesehatan Republik Indonesia, Jakarta, 77-79.
3. Backer, C.A. and van den Brink, R.C.B., 1965, *Flora of Java: Spermatophytes only Volume 2*, N.V.P. Noordhoff-Groningen-The Netherlands, 468.

**Lampiran 2. Hasil Pemeriksaan Organoleptis, Daya Lekat, Kekentalan, Susut Pengeringan Ekstrak Kental Tanaman Ceplukan**

**Hasil Pemeriksaan Organoleptis**

Pemeriksaan Organoleptis	Deskripsi
Bentuk	pasta kental, lengket
Warna	coklat tua pekat
Bau	khas aromatik
Rasa	pahit agak asam

**Hasil Pemeriksaan Daya Lekat**

Replikasi	Waktu (detik)
1	34
2	34
3	34
4	35
5	35
Rata-rata	34,4
SD	0,548

**Hasil Pemeriksaan Kekentalan**

Replikasi	Kekentalan
1	400
2	400
3	400
Rata-rata	400
SD	0

### Lampiran 3. Hasil Pemeriksaan Waktu Alir Granul

Replikasi	F I	F II	F III	F IV	F V
1	10,60	7,31	7,25	7,25	7,44
2	10,39	7,38	7,34	7,38	7,50
3	10,34	7,38	7,34	7,37	7,37
Rata-rata	10,443	7,357	7,310	7,333	7,437
SD	0,138	0,040	0,058	0,072	0,065

### NPar Tests

#### One-Sample Kolmogorov-Smirnov Test

		Waktu Alir
N		15
Normal Parameters <sup>a,b</sup>	Mean	7.9760
	Std. Deviation	1.27956
Most Extreme Differences	Absolute	.445
	Positive	.445
	Negative	-.285
Kolmogorov-Smirnov Z		1.724
Asymp. Sig. (2-tailed)		.005

a. Test distribution is Normal.

b. Calculated from data.

### NPar Tests

#### Kruskal-Wallis Test

##### Ranks

	Formula	N	Mean Rank
Waktu Alir	F I	3	14.00
	F II	3	7.00
	F III	3	3.50
	F IV	3	5.67
	F V	3	9.83
	Total	15	

### Lampiran 3. Lanjutan

#### Test Statistics<sup>a,b</sup>

	Waktu Alir
Chi-Square	10.034
df	4
Asymp. Sig.	.040

a. Kruskal Wallis Test

b. Grouping Variable: Formula

### Oneway

#### Descriptives

Waktu Alir

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	3	10.4433	.13796	.0797	10.1006	10.7860	10.34	10.60
F II	3	7.3567	.04041	.0233	7.2563	7.4571	7.31	7.38
F III	3	7.3100	.05196	.0300	7.1809	7.4391	7.25	7.34
F IV	3	7.3333	.07234	.0418	7.1536	7.5130	7.25	7.38
F V	3	7.4367	.06506	.0376	7.2750	7.5983	7.37	7.50
Total	15	7.9760	1.27956	.3304	7.2674	8.6846	7.25	10.60

#### Test of Homogeneity of Variances

Waktu Alir

Levene Statistic	df1	df2	Sig.
2.501	4	10	.109

#### ANOVA

Waktu Alir

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22.856	4	5.714	870.163	.000
Within Groups	.066	10	.007		
Total	22.922	14			

### Lampiran 3. Lanjutan

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: Waktu Alir

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	3.08667*	.06616	.000	2.9392	3.2341
	F III	3.13333*	.06616	.000	2.9859	3.2808
	F IV	3.11000*	.06616	.000	2.9626	3.2574
	F V	3.00667*	.06616	.000	2.8592	3.1541
F II	F I	-3.08667*	.06616	.000	-3.2341	-2.9392
	F III	.04667	.06616	.497	-.1008	.1941
	F IV	.02333	.06616	.732	-.1241	.1708
	F V	-.08000	.06616	.254	-.2274	.0674
F III	F I	-3.13333*	.06616	.000	-3.2808	-2.9859
	F II	-.04667	.06616	.497	-.1941	.1008
	F IV	-.02333	.06616	.732	-.1708	.1241
	F V	-.12667	.06616	.085	-.2741	.0208
F IV	F I	-3.11000*	.06616	.000	-3.2574	-2.9626
	F II	-.02333	.06616	.732	-.1708	.1241
	F III	.02333	.06616	.732	-.1241	.1708
	F V	-.10333	.06616	.149	-.2508	.0441
F V	F I	-3.00667*	.06616	.000	-3.1541	-2.8592
	F II	.08000	.06616	.254	-.0674	.2274
	F III	.12667	.06616	.085	-.0208	.2741
	F IV	.10333	.06616	.149	-.0441	.2508

\*. The mean difference is significant at the .05 level.

#### Lampiran 4. Hasil Pemeriksaan Sudut Diam (°) Granul

Replikasi	F I	F II	F III	F IV	F V
1	31,341	30,710	32,456	31,230	31,758
2	31,090	34,294	32,456	31,758	29,553
3	30,964	31,675	32,046	30,710	33,024
Rata-rata	31,132	31,675	32,319	31,233	31,445
SD	0,192	1,855	0,237	0,524	1,757

#### NPar Tests

##### One-Sample Kolmogorov-Smirnov Test

		Sudut Diam
N		15
Normal Parameters <sup>a,b</sup>	Mean	31.6710
	Std. Deviation	1.12035
Most Extreme Differences	Absolute	.136
	Positive	.136
	Negative	-.129
Kolmogorov-Smirnov Z		.526
Asymp. Sig. (2-tailed)		.945

a. Test distribution is Normal.

b. Calculated from data.

#### Oneway

##### Descriptives

Sudut Diam								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	3	31.1317	.19192	.1108	30.6549	31.6084	30.96	31.34
F II	3	32.2263	1.85452	1.071	27.6195	36.8332	30.71	34.29
F III	3	32.3193	.23671	.1367	31.7313	32.9074	32.05	32.46
F IV	3	31.2327	.52401	.3025	29.9310	32.5344	30.71	31.76
F V	3	31.4450	1.75654	1.014	27.0815	35.8085	29.55	33.02
Total	15	31.6710	1.12035	.2893	31.0506	32.2914	29.55	34.29

## Lampiran 4. Lanjutan

### Test of Homogeneity of Variances

Sudut Diam

Levene Statistic	df1	df2	Sig.
3.966	4	10	.035

### ANOVA

Sudut Diam

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.788	4	.947	.687	.617
Within Groups	13.784	10	1.378		
Total	17.573	14			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: Sudut Diam

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	-1.09467	.95862	.280	-3.2306	1.0413
	F III	-1.18767	.95862	.244	-3.3236	.9483
	F IV	-.10100	.95862	.918	-2.2369	2.0349
	F V	-.31333	.95862	.751	-2.4493	1.8226
F II	F I	1.09467	.95862	.280	-1.0413	3.2306
	F III	-.09300	.95862	.925	-2.2289	2.0429
	F IV	.99367	.95862	.324	-1.1423	3.1296
	F V	.78133	.95862	.434	-1.3546	2.9173
F III	F I	1.18767	.95862	.244	-.9483	3.3236
	F II	.09300	.95862	.925	-2.0429	2.2289
	F IV	1.08667	.95862	.283	-1.0493	3.2226
	F V	.87433	.95862	.383	-1.2616	3.0103
F IV	F I	.10100	.95862	.918	-2.0349	2.2369
	F II	-.99367	.95862	.324	-3.1296	1.1423
	F III	-1.08667	.95862	.283	-3.2226	1.0493
	F V	-.21233	.95862	.829	-2.3483	1.9236
F V	F I	.31333	.95862	.751	-1.8226	2.4493
	F II	-.78133	.95862	.434	-2.9173	1.3546
	F III	-.87433	.95862	.383	-3.0103	1.2616
	F IV	.21233	.95862	.829	-1.9236	2.3483



### Lampiran 5. Hasil Pemeriksaan Pengetapan (%) Granul

Replikasi	F I	F II	F III	F IV	F V
1	6	4	4	4	3
2	4	6	5	4	3
3	6	6	4	3	4
Rata-rata	5,333	5,333	4,333	3,667	3,333
SD	1,155	1,155	0,577	0,577	0,577

### NPar Tests

#### One-Sample Kolmogorov-Smirnov Test

		Pengetapan
N		15
Normal Parameters <sup>a,b</sup>	Mean	5.3333
	Std. Deviation	.61721
Most Extreme Differences	Absolute	.305
	Positive	.305
	Negative	-.260
Kolmogorov-Smirnov Z		1.183
Asymp. Sig. (2-tailed)		.122

a. Test distribution is Normal.

b. Calculated from data.

### Oneway

#### Descriptives

Pengetapan								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	3	5.667	.57735	.3333	4.2324	7.1009	5.00	6.00
F II	3	5.333	.57735	.3333	3.8991	6.7676	5.00	6.00
F III	3	4.667	.57735	.3333	3.2324	6.1009	4.00	5.00
F IV	3	5.667	.57735	.3333	4.2324	7.1009	5.00	6.00
F V	3	5.333	.57735	.3333	3.8991	6.7676	5.00	6.00
Total	15	5.333	.61721	.1594	4.9915	5.6751	4.00	6.00

## Lampiran 5. Lanjutan

### Test of Homogeneity of Variances

Pengetapan

Levene Statistic	df1	df2	Sig.
.000	4	10	1.000

### ANOVA

Pengetapan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.000	4	.500	1.500	.274
Within Groups	3.333	10	.333		
Total	5.333	14			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: Pengetapan

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	.33333	.47140	.496	-.7170	1.3837
	F III	1.00000	.47140	.060	-.0504	2.0504
	F IV	.00000	.47140	1.000	-1.0504	1.0504
	F V	.33333	.47140	.496	-.7170	1.3837
F II	F I	-.33333	.47140	.496	-1.3837	.7170
	F III	.66667	.47140	.188	-.3837	1.7170
	F IV	-.33333	.47140	.496	-1.3837	.7170
	F V	.00000	.47140	1.000	-1.0504	1.0504
F III	F I	-1.00000	.47140	.060	-2.0504	.0504
	F II	-.66667	.47140	.188	-1.7170	.3837
	F IV	-1.00000	.47140	.060	-2.0504	.0504
	F V	-.66667	.47140	.188	-1.7170	.3837
F IV	F I	.00000	.47140	1.000	-1.0504	1.0504
	F II	.33333	.47140	.496	-.7170	1.3837
	F III	1.00000	.47140	.060	-.0504	2.0504
	F V	.33333	.47140	.496	-.7170	1.3837
F V	F I	-.33333	.47140	.496	-1.3837	.7170
	F II	.00000	.47140	1.000	-1.0504	1.0504
	F III	.66667	.47140	.188	-.3837	1.7170
	F IV	-.33333	.47140	.496	-1.3837	.7170

### Lampiran 6. Hasil Pemeriksaan Kekerasan Tablet

Replikasi	F I	F II	F III	F IV	F V
1	4,08	5,18	6,30	7,56	8,43
2	4,12	5,10	6,84	7,72	8,21
3	4,96	5,24	6,42	8,06	8,64
4	4,65	5,30	6,21	7,46	8,42
5	5,11	5,18	6,59	7,21	8,87
Rata-rata	4,584	5,200	6,472	7,602	8,514
SD	0.472	0,075	0.250	0.316	0.250

### NPar Tests

#### One-Sample Kolmogorov-Smirnov Test

		Kekerasan Tablet
N		25
Normal Parameters <sup>a,b</sup>	Mean	6.2912
	Std. Deviation	2.41362
Most Extreme Differences	Absolute	.151
	Positive	.151
	Negative	-.109
Kolmogorov-Smirnov Z		.756
Asymp. Sig. (2-tailed)		.616

a. Test distribution is Normal.

b. Calculated from data.

### Oneway

#### Descriptives

Kekerasan Tablet								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	5	3.1680	.25646	.1147	2.8496	3.4864	2.92	3.57
F II	5	4.8100	.40626	.1817	4.3056	5.3144	4.27	5.25
F III	5	5.7320	.17726	.0793	5.5119	5.9521	5.49	5.98
F IV	5	7.8580	.24722	.1106	7.5510	8.1650	7.53	8.21
F V	5	9.8880	.25302	.1132	9.5738	10.2022	9.51	10.15
Total	25	6.2912	2.41362	.4827	5.2949	7.2875	2.92	10.15

## Lampiran 6. Lanjutan

### ANOVA

Kekerasan Tablet

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	138.264	4	34.566	446.152	.000
Within Groups	1.550	20	.077		
Total	139.814	24			

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: Kekerasan Tablet

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	-1.64200*	.17604	.000	-2.0092	-1.2748
	F III	-2.56400*	.17604	.000	-2.9312	-2.1968
	F IV	-4.69000*	.17604	.000	-5.0572	-4.3228
	F V	-6.72000*	.17604	.000	-7.0872	-6.3528
F II	F I	1.64200*	.17604	.000	1.2748	2.0092
	F III	-.92200*	.17604	.000	-1.2892	-.5548
	F IV	-3.04800*	.17604	.000	-3.4152	-2.6808
	F V	-5.07800*	.17604	.000	-5.4452	-4.7108
F III	F I	2.56400*	.17604	.000	2.1968	2.9312
	F II	.92200*	.17604	.000	.5548	1.2892
	F IV	-2.12600*	.17604	.000	-2.4932	-1.7588
	F V	-4.15600*	.17604	.000	-4.5232	-3.7888
F IV	F I	4.69000*	.17604	.000	4.3228	5.0572
	F II	3.04800*	.17604	.000	2.6808	3.4152
	F III	2.12600*	.17604	.000	1.7588	2.4932
	F V	-2.03000*	.17604	.000	-2.3972	-1.6628
F V	F I	6.72000*	.17604	.000	6.3528	7.0872
	F II	5.07800*	.17604	.000	4.7108	5.4452
	F III	4.15600*	.17604	.000	3.7888	4.5232
	F IV	2.03000*	.17604	.000	1.6628	2.3972

\*. The mean difference is significant at the .05 level.

### Lampiran 7. Hasil Pemeriksaan Kerapuhan Tablet

Replikasi	F I	F II	F III	F IV	F V
1	0,46	0,40	0,30	0,30	0,10
2	0,55	0,40	0,28	0,19	0,10
3	0,56	0,50	0,40	0,20	0,19
Rata-rata	0,52	0,43	0,33	0,23	0,13
SD	0,055	0,058	0,064	0,061	0,052

### NPar Tests

#### One-Sample Kolmogorov-Smirnov Test

		Kerapuhan Tablet
N		15
Normal Parameters <sup>a,b</sup>	Mean	.1500
	Std. Deviation	.06633
Most Extreme Differences	Absolute	.126
	Positive	.116
	Negative	-.126
Kolmogorov-Smirnov Z		.486
Asymp. Sig. (2-tailed)		.972

a. Test distribution is Normal.

b. Calculated from data.

### Oneway

#### Descriptives

##### Kerapuhan Tablet

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	3	.1967	.01528	.0088	.1587	.2346	.18	.21
F II	3	.1500	.03464	.0200	.0639	.2361	.13	.19
F III	3	.1567	.03215	.0186	.0768	.2365	.12	.18
F IV	3	.0767	.04041	.0233	-.0237	.1771	.04	.12
F V	3	.1700	.12124	.0700	-.1312	.4712	.06	.30
Total	15	.1500	.06633	.0171	.1133	.1867	.04	.30

## Lampiran 7. Lanjutan

### ANOVA

Kerapuhan Tablet

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.024	4	.006	1.596	.250
Within Groups	.038	10	.004		
Total	.062	14			

### Post Hoc Tests

#### Multiple Comparisons

Dependent Variable: Kerapuhan Tablet

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	.04667	.05007	.373	-.0649	.1582
	F III	.04000	.05007	.443	-.0716	.1516
	F IV	.12000*	.05007	.038	.0084	.2316
	F V	.02667	.05007	.606	-.0849	.1382
F II	F I	-.04667	.05007	.373	-.1582	.0649
	F III	-.00667	.05007	.897	-.1182	.1049
	F IV	.07333	.05007	.174	-.0382	.1849
	F V	-.02000	.05007	.698	-.1316	.0916
F III	F I	-.04000	.05007	.443	-.1516	.0716
	F II	.00667	.05007	.897	-.1049	.1182
	F IV	.08000	.05007	.141	-.0316	.1916
	F V	-.01333	.05007	.795	-.1249	.0982
F IV	F I	-.12000*	.05007	.038	-.2316	-.0084
	F II	-.07333	.05007	.174	-.1849	.0382
	F III	-.08000	.05007	.141	-.1916	.0316
	F V	-.09333	.05007	.092	-.2049	.0182
F V	F I	-.02667	.05007	.606	-.1382	.0849
	F II	.02000	.05007	.698	-.0916	.1316
	F III	.01333	.05007	.795	-.0982	.1249
	F IV	.09333	.05007	.092	-.0182	.2049

\*. The mean difference is significant at the .05 level.

### Lampiran 8. Hasil Pemeriksaan Keseragaman Bobot Tablet

Replikasi	F I	F II	F III	F IV	F V
1	508,5	510,5	515,0	509,1	510,8
2	503,5	508,2	501,9	516,7	503,5
3	507,5	512,5	513,5	512,5	509,0
4	505,5	506,8	511,7	518,1	503,0
5	510,4	506,8	501,1	517,5	507,6
6	508,4	504,9	506,9	515,8	501,5
7	505,3	509,8	508,7	527,8	501,5
8	509,3	511,1	513,6	520,7	501,2
9	503,8	511,9	511,5	528,0	520,7
10	513,5	501,5	506,0	510,1	511,0
11	520,0	513,5	512,7	516,5	504,3
12	509,4	501,3	501,0	525,8	501,6
13	516,6	507,6	500,7	528,9	516,6
14	501,5	500,7	504,1	526,6	528,0
15	500,2	505,8	502,0	504,1	514,0
16	505,4	505,5	502,5	521,7	527,5
17	506,9	501,6	505,3	527,1	519,8
18	503,5	513,3	503,6	521,2	511,1
19	515,6	504,7	500,6	521,8	511,6
20	501,9	501,4	506,4	525,3	517,2
Rata-rata	507,835	506,955	506,415	519,765	511,075
SD	5,309	4,301	4,996	7,046	8,453
CV (%)	1,045	0,848	0,987	1,356	1,654

Perhitungan keseragaman bobot tablet menurut Farmakope Indonesia.

#### 1. Formula I

Bobot rata-rata 20 tablet = 507,835 mg

a. Untuk penyimpangan 5% =  $5/100 \times 507,835 \text{ mg} = 25,392 \text{ mg}$

Jadi berat tablet =  $(507,835 \pm 25,392) \text{ mg}$

=  $(482,44 - 533,23) \text{ mg}$

b. Untuk penyimpangan 10% =  $10/100 \times 507,835 \text{ mg} = 50,784 \text{ mg}$

Jadi berat tablet =  $(507,835 \pm 50,784) \text{ mg}$

=  $(457,05 - 558,62) \text{ mg}$

#### 2. Formula II

Bobot rata-rata 20 tablet = 506,955mg

a. Untuk penyimpangan 5% =  $5/100 \times 506,955 \text{ mg} = 25,348 \text{ mg}$

Jadi berat tablet =  $(506,955 \pm 25,348) \text{ mg}$

=  $(481,61 - 532,30) \text{ mg}$

b. Untuk penyimpangan 10% =  $10/100 \times 506,955 \text{ mg} = 50,696 \text{ mg}$

### Lampiran 8. Lanjutan

$$\begin{aligned} \text{Jadi berat tablet} &= (506,955 \pm 50,696) \text{ mg} \\ &= (456,26 - 557,65) \text{ mg} \end{aligned}$$

#### 3. Formula III

$$\text{Bobot rata-rata 20 tablet} = 506,415 \text{ mg}$$

$$\text{a. Untuk penyimpangan 5\%} = 5/100 \times 506,415 \text{ mg} = 25,321 \text{ mg}$$

$$\text{Jadi berat tablet} = (506,415 \pm 25,321) \text{ mg}$$

$$= (481,09 - 531,74) \text{ mg}$$

$$\text{b. Untuk penyimpangan 10\%} = 10/100 \times 506,415 \text{ mg} = 50,642 \text{ mg}$$

$$\text{Jadi berat tablet} = (506,415 \pm 50,642) \text{ mg}$$

$$= (455,77 - 557,06) \text{ mg}$$

#### 4. Formula IV

$$\text{Bobot rata-rata 20 tablet} = 519,765 \text{ mg}$$

$$\text{a. Untuk penyimpangan 5\%} = 5/100 \times 519,765 \text{ mg} = 25,988 \text{ mg}$$

$$\text{Jadi berat tablet} = (519,765 \pm 25,988) \text{ mg}$$

$$= (493,78 - 545,75) \text{ mg}$$

$$\text{b. Untuk penyimpangan 10\%} = 10/100 \times 519,765 \text{ mg} = 51,977 \text{ mg}$$

$$\text{Jadi berat tablet} = (519,765 \pm 51,977) \text{ mg}$$

$$= (467,79 - 571,74) \text{ mg}$$

#### 5. Formula V

$$\text{Bobot rata-rata 20 tablet} = 511,075 \text{ mg}$$

$$\text{a. Untuk penyimpangan 5\%} = 5/100 \times 511,075 \text{ mg} = 25,554 \text{ mg}$$

$$\text{Jadi berat tablet} = (511,075 \pm 25,554) \text{ mg}$$

$$= (485,52 - 536,63) \text{ mg}$$

$$\text{b. Untuk penyimpangan 10\%} = 10/100 \times 511,075 \text{ mg} = 51,108 \text{ mg}$$

$$\text{Jadi berat tablet} = (511,075 \pm 51,108) \text{ mg}$$

$$= (459,97 - 562,18) \text{ mg}$$

## NPar Tests

One-Sample Kolmogorov-Smirnov Test

			Keseragaman Bobot
N			100
Normal Parameters	a,b	Mean	509.9860
		Std. Deviation	9.73321
Most Extreme Differences		Absolute	.070
		Positive	.070
		Negative	-.057
Kolmogorov-Smirnov Z			.701
Asymp. Sig. (2-tailed)			.709

a. Test distribution is Normal.

b. Calculated from data.



## Lampiran 8. Lanjutan Oneway

### Descriptives

Keseragaman Bobot

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	20	509.62	5.17754	1.158	507.20	512.04	498.00	520.80
F II	20	506.67	5.94973	1.330	503.88	509.45	498.50	517.60
F III	20	516.43	10.97458	2.454	511.30	521.57	496.30	545.70
F IV	20	513.31	11.95840	2.674	507.72	518.91	491.50	529.10
F V	20	503.90	7.85637	1.757	500.22	507.57	492.40	518.10
Total	100	509.99	9.73321	.9733	508.05	511.92	491.50	545.70

### Test of Homogeneity of Variances

Keseragaman Bobot

Levene Statistic	df1	df2	Sig.
4.323	4	95	.003

### ANOVA

Keseragaman Bobot

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2018.702	4	504.676	6.514	.000
Within Groups	7360.098	95	77.475		
Total	9378.800	99			

## Lampiran 8. Lanjutan Post Hoc Tests

### Multiple Comparisons

Dependent Variable: Keceragaman Bobot

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	2.95500	2.78343	.291	-2.5708	8.4808
	F III	-6.81500*	2.78343	.016	-12.341	-1.2892
	F IV	-3.69500	2.78343	.188	-9.2208	1.8308
	F V	5.72500*	2.78343	.042	.1992	11.2508
F II	F I	-2.95500	2.78343	.291	-8.4808	2.5708
	F III	-9.77000*	2.78343	.001	-15.296	-4.2442
	F IV	-6.65000*	2.78343	.019	-12.176	-1.1242
	F V	2.77000	2.78343	.322	-2.7558	8.2958
F III	F I	6.81500*	2.78343	.016	1.2892	12.3408
	F II	9.77000*	2.78343	.001	4.2442	15.2958
	F IV	3.12000	2.78343	.265	-2.4058	8.6458
	F V	12.54000*	2.78343	.000	7.0142	18.0658
F IV	F I	3.69500	2.78343	.188	-1.8308	9.2208
	F II	6.65000*	2.78343	.019	1.1242	12.1758
	F III	-3.12000	2.78343	.265	-8.6458	2.4058
	F V	9.42000*	2.78343	.001	3.8942	14.9458
F V	F I	-5.72500*	2.78343	.042	-11.251	-.1992
	F II	-2.77000	2.78343	.322	-8.2958	2.7558
	F III	-12.54000*	2.78343	.000	-18.066	-7.0142
	F IV	-9.42000*	2.78343	.001	-14.946	-3.8942

\*. The mean difference is significant at the .05 level.

### Lampiran 9. Hasil Pemeriksaan Waktu Hancur Tablet

Replikasi	F I	F II	F III	F IV	F V
1	10,12	11,16	12,16	14,21	17,12
2	10,15	11,32	12,31	14,26	17,16
3	10,27	11,38	12,34	14,27	17,42
Rata-rata	10,18	11,29	12,27	14,25	17,23
SD	0,08	0,11	0,10	0,03	0,16

### NPar Tests

#### One-Sample Kolmogorov-Smirnov Test

		Waktu Hancur
N		15
Normal Parameters <sup>a,b</sup>	Mean	8.7160
	Std. Deviation	1.96374
Most Extreme Differences	Absolute	.162
	Positive	.162
	Negative	-.148
Kolmogorov-Smirnov Z		.627
Asymp. Sig. (2-tailed)		.827

a. Test distribution is Normal.

b. Calculated from data.

### Oneway

#### Descriptives

Waktu Hancur

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F I	3	6.1667	.06429	.0371	6.0070	6.3264	6.12	6.24
F II	3	7.4467	.07095	.0410	7.2704	7.6229	7.37	7.51
F III	3	8.3133	.12662	.0731	7.9988	8.6279	8.17	8.41
F IV	3	10.2033	.15144	.0874	9.8271	10.5795	10.03	10.31
F V	3	11.4500	.08185	.0473	11.2467	11.6533	11.38	11.54
Total	15	8.7160	1.96374	.5070	7.6285	9.8035	6.12	11.54

## Lampiran 9. Lanjutan

### ANOVA

Waktu Hancur

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	53.878	4	13.470	1228.224	.000
Within Groups	.110	10	.011		
Total	53.988	14			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: Waktu Hancur

LSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F I	F II	-1.28000*	.08551	.000	-1.4705	-1.0895
	F III	-2.14667*	.08551	.000	-2.3372	-1.9561
	F IV	-4.03667*	.08551	.000	-4.2272	-3.8461
	F V	-5.28333*	.08551	.000	-5.4739	-5.0928
F II	F I	1.28000*	.08551	.000	1.0895	1.4705
	F III	-.86667*	.08551	.000	-1.0572	-.6761
	F IV	-2.75667*	.08551	.000	-2.9472	-2.5661
	F V	-4.00333*	.08551	.000	-4.1939	-3.8128
F III	F I	2.14667*	.08551	.000	1.9561	2.3372
	F II	.86667*	.08551	.000	.6761	1.0572
	F IV	-1.89000*	.08551	.000	-2.0805	-1.6995
	F V	-3.13667*	.08551	.000	-3.3272	-2.9461
F IV	F I	4.03667*	.08551	.000	3.8461	4.2272
	F II	2.75667*	.08551	.000	2.5661	2.9472
	F III	1.89000*	.08551	.000	1.6995	2.0805
	F V	-1.24667*	.08551	.000	-1.4372	-1.0561
F V	F I	5.28333*	.08551	.000	5.0928	5.4739
	F II	4.00333*	.08551	.000	3.8128	4.1939
	F III	3.13667*	.08551	.000	2.9461	3.3272
	F IV	1.24667*	.08551	.000	1.0561	1.4372

\*. The mean difference is significant at the .05 level.