

BAB V

KESIMPULAN DAN SARAN

A. KESIMPULAN

Pertama, ekstrak daging buah asam jawa (*Tamarindus indica* Linn.) dapat dibuat sediaan tablet hisap.

Kedua, tablet hisap ekstrak daging buah asam jawa (*Tamarindus indica* Linn.) yang telah dibuat memenuhi persyaratan uji mutu fisik tablet hisap yaitu uji keseragaman bobot, uji kekerasan tablet, uji kerapuhan tablet, uji waktu larut, dan uji tanggap rasa.

B. SARAN


Pertama, perlu dilakukan penelitian dengan menggunakan bahan pengikat yang lain.

Kedua, perlu dilakukan penelitian dengan menggunakan metode lain.

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Lampiran 1. Surat keterangan melakukan determinasi



**UNIVERSITAS
SETIA BUDI**
UPT- LABORATORIUM

No : 046/DET/UPT-LAB/21/III/2013
Hal : Surat Keterangan Determinasi Tumbuhan

Menerangkan bahwa :

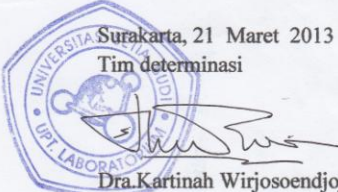
Nama : Riya Sari
NIM : 13100796 B
Fakultas : Farmasi Universitas Setia Budi

Telah mendeterminasikan tumbuhan : **Asam (*Tamarindus indica* L.)**
Hasil determinasi berdasarkan : Steenis: FLORA
1b – 2b – 3b – 4b – 6b – 7b – 9b – 10b – 11b – 12b – 13b – 15b. golongan 9. 197b – 208a – 209b – 210b – 211b – 214b – 215a. familia 59. Caesalpiniaceae. 1b – 5b – 7b – 8a. 7. *Tamarindus*.
***Tamarindus indica* L.**

Deskripsi:

Habitus : Pohon yang selalu hijau, tinggi dapat mencapai 25 meter.
Batang : Berukuran besar, kulit batang coklat, kasar.
Daun : Majemuk menyirip genap, jumlah anak daun 12 – 15 pasang, bentuk memanjang, panjang anak daun ± 1,5 cm, tepi rata.
Bunga : Berwarna kuning, berukuran kecil, panjang tangkai ± 3 cm.
Buah : Polongan, panjang 10 – 13 cm, sedikit melengkung, kulit buah berwarna coklat, tidak merekah ketika kering. Daging buah ketika masih muda berwarna putih kehijauan, pada saat tua berwarna merah kecoklatan, ketika sangat masak berwarna hitam, rasa masam.
Biji : coklat kehitaman, mengkilat, keras, agak persegi, terdapat 8 – 10 biji pada tiap polong yang dibungkus oleh daging buah.
Akar : Tunggang.

Pustaka : Steenis C.G.G.J., Bloembergen S. Eyma P.J. (1978): *FLORA*, PT Pradnya Paramita. Jl. Kebon Sirih 46. Jakarta Pusat, 1978.



Surakarta, 21 Maret 2013
Tim determinasi
Dra. Kartinah Wirjosoendjojo, SU.

Jl. Let.jen Sutoyo, Mojosongo-Solo 57127 Telp.0271-852518, Fax.0271-853275
Homebae : www.setiabudi.ac.id. e-mail : usbsolo@yahoo.com

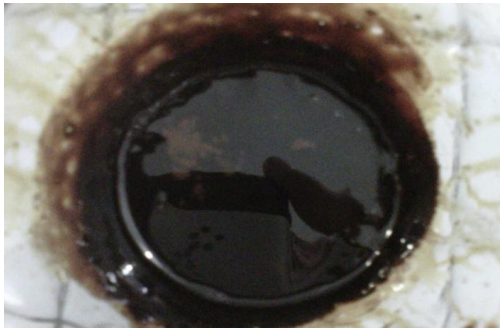
Lampiran 2. Foto asam jawa (*Tamarindus indica* Linn.)



Asam jawa



asam jawa



Ekstrak kental daging buah asam jawa serbuk kering daging buah asam jawa



Ekstrak kering daging buah asam jawa

Gambar 3. Asam jawa (*Tamarindus indica* Linn.)

Lampiran 3. Alat-alat yang digunakan**Mesin kempa tablet****Oven****Friabilator tester****Hardness tester****Neraca analitik****Gambar 4. Alat-alat yang digunakan dalam penelitian**

Lampiran 4. Foto tablet hisap ekstrak daging buah asam jawa



Formula I (PVP 3%)



Formula II (PVP 4%)



Formula III (PVP 5%)

Gambar 5. Tablet hisap ekstrak daging buah asam jawa

Lampiran 5. Perhitungan dosis per tablet

Data hasil pembuatan ekstrak kental daging buah asam jawa. Untuk digunakan sebagai obat batuk diperlukan 10 gram daging buah asam jawa.

Berat basah 3000 g ~ 254,81 g ekstrak kental

$$\frac{10 \text{ gram}}{3000 \text{ gram}} \times 254,81 \text{ gram} = 0,850 \text{ gram ekstrak kental}$$

$$= 850 \text{ mg ekstrak kental}$$

10 gram daging buah asam ~ 850 mg ekstrak kental

850 g ekstrak kental + aerosil ad 1500 = 1500 ekstrak kering

Sehingga dalam pembuatan 1 tablet diperlukan 1500 ekstrak kering. Aturan pemakaian 1 x sehari 1 tablet.

Formula Tablet

Komposisi	Formula 1 (mg) PVP (3%)	Formula 2 (mg) PVP (4%)	Fomula 3 (mg) PVP (5%)
Ekstrak kering + aerosil	1500	1500	1500
Manitol	360	360	360
PVP	75	100	125
Mg stearat	25	25	25
Laktosa ad	2500	2500	2500

$$\text{PVP 3\%} = \frac{3}{100} \times 2500 \text{ mg} = 75 \text{ mg}$$

$$\text{PVP 4\%} = \frac{4}{100} \times 2500 \text{ mg} = 100 \text{ mg}$$

$$\text{PVP 5\%} = \frac{5}{100} \times 2500 \text{ mg} = 125 \text{ mg}$$

Lampiran 6. Pemeriksaan ekstrak kental daging buah asam jawa

Lampiran 6.a. Hasil pemeriksaan organoleptik ekstrak kental daging buah asam jawa

Jenis pemeriksaan	Hasil
Bentuk	Kental
Warna	Orange kecoklatan
Bau	Khas
Rasa	Asam

Lampiran 6.b. Hasil Pemeriksaan kelekatan ekstrak kental daging buah asam jawa

No.	ekstrak kental (g)	waktu (detik)
1	1	114
2	1	110
3	1	112
$\sum x$	3	336
\bar{x}		112

Lampiran 7. Uji sifat fisik ekstrak kering daging buah asam jawa

7.a. Uji waktu alir

No.	waktu alir (detik/100 g)		
	Formula 1 PVP 3%	Formula 2 PVP 4%	Formula 3 PVP 5%
1	5,25	5,86	5,98
2	5,30	5,83	5,85
3	5,34	5,80	5,96
4	5,64	5,79	5,80
5	5,43	5,87	5,99
\bar{X}	5,39	5,83	5,9
SD	0,15	0,03	0,08

7.b. Uji sudut diam

No.	Sudut diam (derajat)								
	Formula 1 PVP 3%			Formula 2 PVP 4%			Formula 3 PVP 5%		
	d	H	α	d	h	α	d	h	α
1	14,60	3,30	24,23	14,70	3,37	24,70	14,20	3,24	24,70
2	14,40	3,32	24,70	14,50	3,35	24,70	14,10	3,20	24,23
3	14,50	3,34	24,70	14,80	3,32	24,23	14,20	3,22	24,23
4	14,40	3,31	24,70	14,50	3,38	25,17	14,30	3,24	24,23
5	14,6	3,30	24,23	14,60	3,33	24,70	14,10	3,21	24,70
\bar{X}			24,51			24,70			24,42
SD			0,26			0,33			0,25

Lampiran 8. Uji sifat fisik tablet hisap ekstrak daging buah asam jawa

8.a. Uji keseragaman bobot tablet hisap ekstrak daging buah asam jawa

No	Keseragaman bobot (g)		
	Formula 1 PVP 3%	Formula 2 PVP 4%	Formula 3 PVP 5%
1	2,499	2,498	2,510
2	2,511	2,513	2,516
3	2,501	2,517	2,513
4	2,498	2,500	2,521
5	2,512	2,528	2,499
6	2,510	2,534	2,512
7	2,499	2,499	2,520
8	2,524	2,551	2,512
9	2,517	2,518	2,520
10	2,513	2,499	2,500
11	2,499	2,512	2,499
12	2,502	2,521	2,512
13	2,514	2,516	2,516
14	2,521	2,524	2,523
15	2,518	2,511	2,499
16	2,496	2,501	2,501
17	2,522	2,500	2,512
18	2,512	2,517	2,511
19	2,516	2,516	2,516
20	2,501	2,497	2,498
\bar{X}	2,509	2,513	2,510
SD	0,009	0,013	0,008
CV	0,358	0,517	0,318

Contoh perhitungan penyimpangan bobot tablet

a. Kolom A (5%)

$$\frac{5}{100} \times 2,509 \text{ g} = 0,125$$

$$\text{BA} : 2,509 + 0,125 = 2,634$$

$$\text{BB} : 2,509 - 0,125 = 2,384$$

$$\text{Range bobot tablet} = 2,384 - 2,634$$

b. Kolom B (10%)

$$\frac{10}{100} \times 2,509 \text{ g} = 0,251$$

$$\text{BA} : 2,509 + 0,251 = 2,760$$

$$\text{BB} : 0,251 - 0,251 = 2,258$$

$$\text{Range bobot tablet} = 2,258 - 2,760$$

Data keseragaman bobot tablet sesuai dengan range bobot tablet yang dipersyaratkan memenuhi syarat uji keseragaman bobot

$$CV\% = \frac{SD}{\text{bobot rata - rata tablet}} \times 100\%$$

$$= \frac{0,009}{2,509} \times 100\%$$

$$= 0,358 \%$$

8.b. Uji kekerasan tablet hisap ekstrak kental daging buah asam jawa

No.	Kekerasan (kg)		
	Formula 1 PVP 3%	Formula 2 PVP 4%	Formula 3 PVP 5%
1	8,4	10	12
2	8,5	9,9	12,4
3	8,9	10,1	12,1
4	8,7	10,4	13
5	9	9,8	12,6
6	8,9	10,7	12,3
\bar{X}	8,73	10,15	12,4
SD	0,24	0,34	0,36

8.c. Uji kerapuhan tablet hisap ekstrak daging buah asam jawa

No.	Kerapuhan (%)		
	Formula 1 PVP 3%	Formula 2 PVP 4%	Formula 3 PVP 5%
1	0,30	0,10	0,06
2	0,34	0,19	0,05
3	0,30	0,11	0,06
\bar{X}	0,31	0,13	0,56
SD	0,023	0,049	0,005

Contoh perhitungan kerapuhan tablet = 0,30 %

- Berat 20 tablet awal yang akan dibebaskan = 50,159 g
- Berat 20 tablet setelah perlakuan = 50,007 g

$$\begin{aligned}
 \bullet \text{ \%kerapuhan} &= \frac{\text{berat awal} - \text{berat setelah perlakuan}}{\text{berat awal}} \times 100\% \\
 &= \frac{50,159 - 50,007}{50,159} \times 100\% \\
 &= 0,30 \%
 \end{aligned}$$

8.d. Hasil uji waktu larut tablet hisap ekstrak daging buah asam jawa

No	Waktu larut (menit)		
	Formula 1 PVP 3%	Formula 2 PVP 4%	Formula 3 PVP 5%
1	6,48	7,00	8,00
2	6,58	6,66	7,00
3	6,85	7,18	6,98
4	7,00	7,03	7,40
5	6,31	6,48	6,83
6	6,63	6,48	7,41
7	7,01	6,88	8,00
8	6,28	6,90	6,93
9	6,33	6,31	7,15
10	6,45	6,70	7,25
11	6,68	6,45	7,91
12	6,96	6,15	7,23
13	6,15	6,30	7,83
14	6,31	6,33	6,95
15	6,46	7,16	7,16
16	6,78	6,41	6,98
17	6,85	6,70	7,60
18	6,38	6,83	6,81
19	6,88	6,55	7,58
20	6,95	6,43	7,75
\bar{X}	6,61	6,64	7,33
SD	0,27	0,30	0,40

Lampiran 9. Data analisis uji statistik

Lampiran 9.a. hasil uji waktu alir

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Waktualir
N		15
Normal Parameters ^{a,b}	Mean	5.7127
	Std. Deviation	.25611
Most Extreme Differences	Absolute	.285
	Positive	.139
	Negative	-.285
Kolmogorov-Smirnov Z		1.105
Asymp. Sig. (2-tailed)		.174

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Descriptives

Waktualir

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for		Minimum	Maximum
					Mean			
					Lower Bound	Upper Bound		
formula1	5	5.3920	.15353	.06866	5.2014	5.5826	5.25	5.64
formula2	5	5.8300	.03536	.01581	5.7861	5.8739	5.79	5.87
formula3	5	5.9160	.08562	.03829	5.8097	6.0223	5.80	5.99
Total	15	5.7127	.25611	.06613	5.5708	5.8545	5.25	5.99

Test of Homogeneity of Variances

Waktualir

Levene Statistic	df1	df2	Sig.
3.421	2	12	.067

ANOVA

Waktualir

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.790	2	.395	36.844	.000
Within Groups	.129	12	.011		
Total	.918	14			

Post Hoc Tests

Multiple Comparisons

Waktualir

Scheffe

(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formula1	formula2	-.43800*	.06547	.000	-.6205	-.2555
	formula3	-.52400*	.06547	.000	-.7065	-.3415
formula2	formula1	.43800*	.06547	.000	.2555	.6205
	formula3	-.08600	.06547	.447	-.2685	.0965
formula3	formula1	.52400*	.06547	.000	.3415	.7065
	formula2	.08600	.06547	.447	-.0965	.2685

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Waktu alir

Scheffe^a

Formula	N	Subset for alpha = 0.05	
		1	2
formula1	5	5.3920	
formula2	5		5.8300
formula3	5		5.9160
Sig.		1.000	.447

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.

9.b. hasil uji sudut diam ekstrak kering daging buah asam jawa

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		sudutdiam
N		15
Normal Parameters ^{a,b}	Mean	24.5433
	Std. Deviation	.29009
Most Extreme Differences	Absolute	.305
	Positive	.260
	Negative	-.305
Kolmogorov-Smirnov Z		1.183
Asymp. Sig. (2-tailed)		.122

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

Sudutdiam

Levene Statistic	df1	df2	Sig.
.099	2	12	.907

ANOVA

Sudutdiam

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.206	2	.103	1.273	.315
Within Groups	.972	12	.081		
Total	1.178	14			

9.c. Data Susut Pengeringan granul

Berat (gram)	PVP 3%	PVP 4%	PVP 5%
Berat mula-mula	2.00	2,00	2,00
Berat konstan	1.93	1,92	1.93
LOD (%)	3,50%	4,00%	3,50%

Contoh perhitungan LOD

$$\begin{aligned}\% \text{ LOD} &= \frac{2,00 - 1,93}{2,00} \times 100 \% \\ &= 3,50 \%\end{aligned}$$

Lampiran 10. Data analisis uji mutu fisik tablet hisap

Lampiran 10.a. hasil keseragaman bobot tablet hisap ekstrak daging buah asam jawa

NPar Tests

One-Sample Kolmogorov-Smirnov Test		keseragamanbo bot
N		60
Normal Parameters ^a	Mean	2.51112
	Std. Deviation	.010729
Most Extreme Differences	Absolute	.160
	Positive	.160
	Negative	-.112
Kolmogorov-Smirnov Z		1.243
Asymp. Sig. (2-tailed)		.091
a. Test distribution is Normal.		

Oneway

Descriptives

Keseragamanbobot

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
formula1	20	2.50925	.009066	.002027	2.50501	2.51349	2.496	2.524
formula2	20	2.51360	.013998	.003130	2.50705	2.52015	2.497	2.551
formula3	20	2.51050	.008294	.001855	2.50662	2.51438	2.498	2.523
Total	60	2.51112	.010729	.001385	2.50834	2.51389	2.496	2.551

Test of Homogeneity of Variances

Keseragamanrobot

Levene Statistic	df1	df2	Sig.
2.038	2	57	.140

ANOVA

keseragamanrobot

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.000	2	.000	.867	.425
Within Groups	.007	57	.000		
Total	.007	59			

Post Hoc Tests

Multiple Comparisons

keseragamanrobot

Scheffe

(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formula1	formula2	-.004350	.003401	.446	-.01290	.00420
	formula3	-.001250	.003401	.935	-.00980	.00730
formula2	formula1	.004350	.003401	.446	-.00420	.01290
	formula3	.003100	.003401	.662	-.00545	.01165
formula3	formula1	.001250	.003401	.935	-.00730	.00980
	formula2	-.003100	.003401	.662	-.01165	.00545

Homogeneous Subsets

keseragamanbobot

Scheffe

Formula	N	Subset for alpha = 0.05
		1
formula1	20	2.50925
formula3	20	2.51050
formula2	20	2.51360
Sig.		.446

Means for groups in homogeneous subsets are displayed.

Lampiran 10.b. hasil uji kekerasan tablet hisap ekstrak daging buah asam jawa

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		kekerasan
N		18
Normal Parameters ^{a,b}	Mean	10.428
	Std. Deviation	1.5822
Most Extreme Differences	Absolute	.173
	Positive	.150
	Negative	-.173
Kolmogorov-Smirnov Z		.735
Asymp. Sig. (2-tailed)		.653

a. Test distribution is Normal.

b. Calculated from data.

Oneway**Descriptives**

Kekerasan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					formula1	6		
formula2	6	10.150	.3391	.1384	9.794	10.506	9.8	10.7
formula3	6	12.400	.3633	.1483	12.019	12.781	12.0	13.0
Total	18	10.428	1.5822	.3729	9.641	11.215	8.4	13.0

Test of Homogeneity of Variances

Kekerasan

Levene Statistic	df1	df2	Sig.
.307	2	15	.741

ANOVA

Kekerasan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	41.028	2	20.514	201.336	.000
Within Groups	1.528	15	.102		
Total	42.556	17			

Post Hoc Tests

Multiple Comparisons

Kekerasan

Scheffe

(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formula1	formula2	-1.4167*	.1843	.000	-1.917	-.917
	formula3	-3.6667*	.1843	.000	-4.167	-3.167
formula2	formula1	1.4167*	.1843	.000	.917	1.917
	formula3	-2.2500*	.1843	.000	-2.750	-1.750
formula3	formula1	3.6667*	.1843	.000	3.167	4.167
	formula2	2.2500*	.1843	.000	1.750	2.750

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Kekerasan

Scheffe^a

Formula	N	Subset for alpha = 0.05		
		1	2	3
formula1	6	8.733		
formula2	6		10.150	
formula3	6			12.400
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Lampiran 10.c. hasil uji kerapuhan tablet hisap ekstrak daging buah asam jawa

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		kerapuhan
N		9
Normal Parameters ^{a,b}	Mean	.1678
	Std. Deviation	.11734
Most Extreme Differences	Absolute	.244
	Positive	.244
	Negative	-.203
Kolmogorov-Smirnov Z		.733
Asymp. Sig. (2-tailed)		.656

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Descriptives

Kerapuhan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
formula1	3	.3133	.02309	.01333	.2560	.3707	.30	.34
formula2	3	.1333	.04933	.02848	.0108	.2559	.10	.19
formula3	3	.0567	.00577	.00333	.0423	.0710	.05	.06
Total	9	.1678	.11734	.03911	.0776	.2580	.05	.34

Test of Homogeneity of Variances

Kerapuhan

Levene Statistic	df1	df2	Sig.
7.125	2	6	.026

ANOVA

Kerapuhan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.104	2	.052	52.078	.000
Within Groups	.006	6	.001		
Total	.110	8			

Post Hoc Tests

Multiple Comparisons

Kerapuhan

Scheffe

(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formula1	formula2	.18000*	.02582	.001	.0972	.2628
	formula3	.25667*	.02582	.000	.1739	.3395
formula2	formula1	-.18000*	.02582	.001	-.2628	-.0972
	formula3	.07667	.02582	.066	-.0061	.1595
formula3	formula1	-.25667*	.02582	.000	-.3395	-.1739
	formula2	-.07667	.02582	.066	-.1595	.0061

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

kerapuhan

Scheffe^a

Formula	N	Subset for alpha = 0.05	
		1	2
formula3	3	.0567	
formula2	3	.1333	
formula1	3		.3133
Sig.		.066	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 10.d. Hasil uji waktu larut tablet hisap ekstrak daging buah asam jawa

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		waktularut
N		60
Normal Parameters ^{a,b}	Mean	6.8667
	Std. Deviation	.46862
Most Extreme Differences	Absolute	.114
	Positive	.114
	Negative	-.072
Kolmogorov-Smirnov Z		.881
Asymp. Sig. (2-tailed)		.420

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Descriptives

Waktularut

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					formula1	20		
formula2	20	6.6465	.30477	.06815	6.5039	6.7891	6.15	7.18
formula3	20	7.3375	.40148	.08977	7.1496	7.5254	6.81	8.00
Total	60	6.8667	.46862	.06050	6.7456	6.9877	6.15	8.00

Test of Homogeneity of Variances

Waktularut

Levene Statistic	df1	df2	Sig.
2.407	2	57	.099

ANOVA

Waktularut

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.660	2	3.330	30.143	.000
Within Groups	6.297	57	.110		
Total	12.957	59			

Post Hoc Tests

Multiple Comparisons

Waktularut

Scheffe

(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formula1	formula2	-.03050	.10511	.959	-.2947	.2337
	formula3	-.72150*	.10511	.000	-.9857	-.4573
formula2	formula1	.03050	.10511	.959	-.2337	.2947
	formula3	-.69100*	.10511	.000	-.9552	-.4268
formula3	formula1	.72150*	.10511	.000	.4573	.9857
	formula2	.69100*	.10511	.000	.4268	.9552

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Waktularut

Scheffe^a

Formula	N	Subset for alpha = 0.05	
		1	2
formula1	20	6.6160	
formula2	20	6.6465	
formula3	20		7.3375
Sig.		.959	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

Lampiran 11. Angket tanggapan rasa dan waktu larut tablet hisap ekstrak daging buah asam jawa

**ANGKET TANGGAPAN RASA DAN WAKTU LARUT TABLET
HISAP EKSTRAK DAGING BUAH ASAM JAWA**

Bahan pengikat	Tanggapan rasa responden terhadap tablet hisap ekstrak daging buah asam jawa			Waktu larut (menit)
	Tidak enak	biasa	enak	
Formula 1 PVP 3%				
Formula 2 PVP 4%				
Formula 3 PVP 5%				

Berilah tanda (√) pada kolom yang disediakan tentang tanggapan rasa masing-masing formula tablet hisap ekstrak daging buah asam jawa, dan catat waktu yang dibutuhkan tablet hisap melarut sempurna dalam rongga mulut.

Identitas responden

Nama lengkap :

Umur :

NIM :

Alamat :