

LAMPIRAN A
STANDARISASI SIMPLISIA
HASIL PERHITUNGAN SUSUT PENGERINGAN SERBUK

Replikasi	Hasil susut pengeringan daun alpukat	Hasil susut pengeringan daun belimbing manis
1	5,30 %	6,60%
2	5,20 %	6,80%
3	5,10 %	6,40%

Rata-rata daun alpukat : $\frac{5,30 \% + 5,20 \% + 5,10 \%}{3} = 5,20\%$

Rata-rata daun belimbing manis : $\frac{6,60 \% + 6,80 \% + 6,40 \%}{3} = 6,60\%$

HASIL PERHITUNGAN PENETAPAN KADAR ABU DAUN ALPUKAT

No	W (krus kosong) (gram)	W (bahan) (gram)	W (krus + abu) (gram)	% Kadar Abu	Rerata
1	20,0074	2,0458	20,0885	7,17	
2	20,0063	2,0438	20,0875	7,20	7,22%
3	20,0090	2,0423	20,0897	7,23	

I. Kadar abu : $\frac{(\text{berat kurs + serbuk}) - \text{berat kurs kosong}}{\text{berat serbuk}} \times 100\%$

$$: \frac{20,0885 - 20,0074}{2,0458} \times 100 \% = 7,17 \%$$

II. Kadar abu : $\frac{(\text{berat kurs + serbuk}) - \text{berat kurs kosong}}{\text{berat serbuk}} \times 100\%$

$$: \frac{20,0875 - 20,0063}{2,0438} \times 100 \% = 7,20 \%$$

$$\text{III Kadar abu : } \frac{(\text{berat kurs + serbuk}) - \text{berat kurs kosong}}{\text{berat serbuk}} \times 100\%$$

$$: \frac{20,0897 - 20,0090}{2,0423} \times 100 \% = 7,23 \%$$

$$\text{Rata-rata kadar abu} = \frac{7,17\% + 7,20\% + 7,23\%}{3} = 3,96 \%$$

**HASIL PERHITUNGAN PENETAPAN KADAR ABU DAUN
BELIMBING MANIS**

No	W (kurs kosong) (gram)	W (bahan) (gram)	W (kurs + abu) (gram)	% Kadar Abu	Rerata
1	20,0074	2,0458	20,0885	7,23	
2	20,0063	2,0438	20,0875	7,20	7,22 %
3	20,0070	2,0040	20,1507	7,17	

$$\text{I. Kadar abu : } \frac{(\text{berat kurs + serbuk}) - \text{berat kurs kosong}}{\text{berat serbuk}} \times 100\%$$

$$: \frac{20,1525 - 20,0074}{2,0060} \times 100 \% = 7,23 \%$$

$$\text{II. Kadar abu : } \frac{(\text{berat kurs + serbuk}) - \text{berat kurs kosong}}{\text{berat serbuk}} \times 100\%$$

$$: \frac{20,1522 - 20,0081}{2,0022} \times 100 \% = 7,20 \%$$

$$\text{III Kadar abu : } \frac{(\text{berat kurs + serbuk}) - \text{berat kurs kosong}}{\text{berat serbuk}} \times 100\%$$

$$: \frac{20,1507 - 20,0070}{2,0040} \times 100 \% = 7,17 \%$$

$$\text{Rata-rata kadar abu} = \frac{7,23\% + 7,20\% + 7,17\%}{3} = 7,22 \%$$

HASIL PERHITUNGAN RANDEMEN EKSTRAK

Daun alpukat Daun belimbing manis

$$\frac{\text{berat ekstrak kental}}{\text{berat serbuk}} \times 100\%$$

$$\frac{\text{berat ekstrak kental}}{\text{berat serbuk}} \times 100\%$$

$$\frac{187,2236}{300,0043} \times 100 \% = 62,40 \%$$

$$\frac{119,2521}{300,0058} \times 100 \% = 39,74 \%$$

HASIL PERHITUNGAN KADAR SARI LARUT ETANOL DAUN ALPUKAT

No	Berat cawan + ekstrak setelah diuapkan	Berat cawan kosong	Berat ekstrak
1	69,1472	68,4391	5,0033
2	69,5139	68,5683	5,0098
3	68,3580	67,5876	5,1311

I Kadar sari larut etanol =

$$\frac{(\text{berat cawan} + \text{ekstrak}) - (\text{berat cawan kosong})}{\text{berat ekstrak}} \times 100\%$$

$$= \frac{69,1472 - 68,4391}{5,0033} \times 100 \% = 14,15 \%$$

II Kadar sari larut etanol =

$$\frac{(\text{berat cawan} + \text{ekstrak}) - (\text{berat cawan kosong})}{\text{berat ekstrak}} \times 100\%$$

$$= \frac{69,5139 - 68,683}{5,0018} \times 100 \% = 18,88 \%$$

III Kadar sari larut etanol =

$$\frac{(\text{berat cawan + ekstrak}) - (\text{berat cawan kosong})}{\text{berat ekstrak}} \times 100\%$$

$$= \frac{68,3580 - 67,5876}{5,1311} \times 100 \% = 15,01 \%$$

$$\text{Rata-rata kadar sari larut etanol} = \frac{14,15\% + 18,88\% + 15,01\%}{3} = 16,01 \%$$

HASIL PERHITUNGAN KADAR SARI LARUT ETANOL BELIMBING MANIS

No	Berat cawan + ekstrak setelah diuapkan	Berat cawan kosong	Berat ekstrak
1	67,7910	66,9725	5,2366
2	67,9444	67,1617	5,1326
3	70,0808	69,2513	5,2502

I Kadar sari larut etanol =

$$\frac{(\text{berat cawan + ekstrak}) - (\text{berat cawan kosong})}{\text{berat ekstrak}} \times 100\%$$

$$= \frac{67,7910 - 66,9725}{5,2366} \times 100 \% = 15,63 \%$$

II Kadar sari larut etanol =

$$\frac{(\text{berat cawan + ekstrak}) - (\text{berat cawan kosong})}{\text{berat ekstrak}} \times 100\%$$

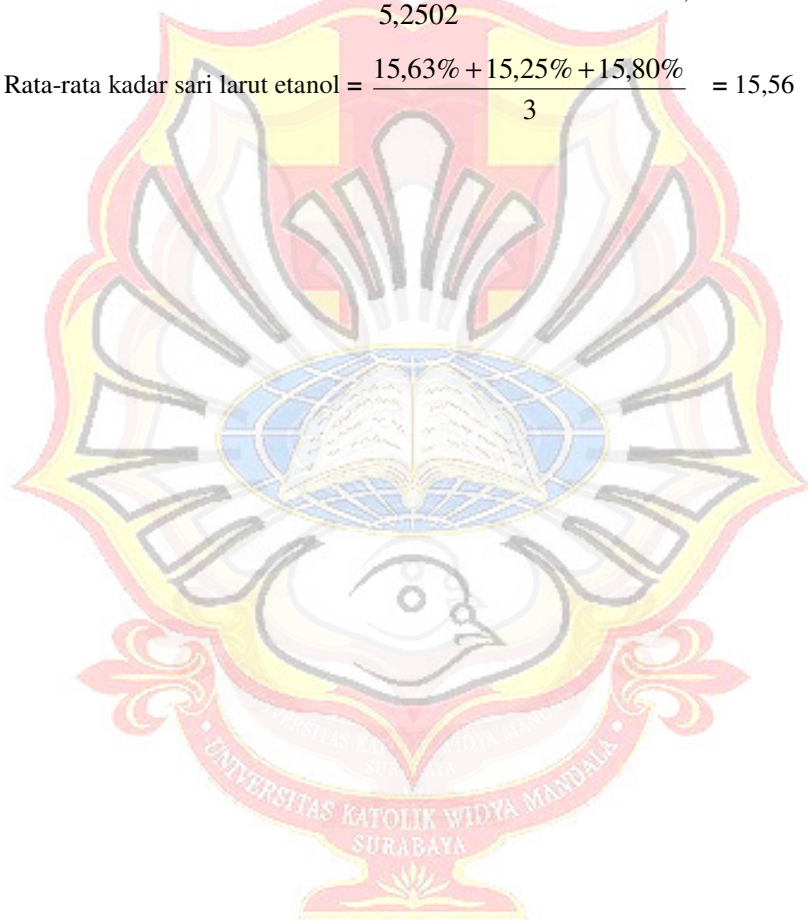
$$= \frac{67,9444 - 67,1617}{5,1326} \times 100 \% = 15,25\%$$

III Kadar sari larut etanol =

$$\frac{(\text{berat cawan} + \text{ekstrak}) - (\text{berat cawan kosong})}{\text{berat ekstrak}} \times 100\%$$

$$= \frac{70,0808 - 69,2513}{5,2502} \times 100\% = 15,80\%$$

$$\text{Rata-rata kadar sari larut etanol} = \frac{15,63\% + 15,25\% + 15,80\%}{3} = 15,56$$



LAMPIRAN B

RANGKUMAN RUMUS ANAVA

Rumus anava rambang lugas digunakan untuk beda antar perlakuan yang lebih dari 2, dimana tiap kelompok dihitung dengan harga n , x , $\sum x$, $\sum x^2$, kemudian dihitung nilai=

N = jumlah subyek seluruhnya = $n_1+n_2+ n_3+ n_4+n_5$

$J = J_i$ = Jumlah data total = $\sum x_1+\sum x_2+\sum x_3+\sum x_4+\sum x_5$

$\sum Y^2_{ij}$ = Jumlah kuadrat data total = $\sum x_1^2+\sum x_2^2+\sum x_3^2+\sum x_4^2+\sum x_5^2$

J^2_i = jumlah kuadrat dari $J = J_i = (\sum x_1+\sum x_2+\sum x_3+\sum x_4+\sum x_5)^2$

JKT = jumlah kuadrat total = $\sum Y^2_{ij} - \sum J^2_i / N$

$JKPy$ = jumlah kuadrat perlakuan = $\sum J^2_i - \sum J^2 / N$

$JKEy$ = jumlah kuadrat dalam = $JKT - JKPy$

dbT = derajat bebas total = $N - 1$

$dbPy$ = derajat bebas perlakuan = $a - 1$

$dbEy$ = derajat bebas dalam = $dbT - dbPy$

$RJKPy$ = rataan jumlah kuadrat perlakuan = $JKPy/dbPy$

$RJKEy$ = rataan jumlah kuadrat dalam = $JKEy/ dbEy$

$F_{hitung} = RJKPy/RJKEy$

Ket : N = jumlah subyek dalam perlakuan

a = jumlah perlakuan

Dari hasil pengolahan data tersebut akan diperoleh harga F hitung yang kemudian akan dibandingkan dengan harga F tabel.

Kriteria pengujian :

- Bila F hitung $< F$ tabel , maka terdapat perbedaan yang tidak bermakna
- Bila F hitung $> F$ tabel, meka terdapat perbedaan yang bermakna

Untuk mengetahui adanya perbedaan efek perlakuan antar pasangan kelompok perlakuan terhadap kadar glukosa darah, maka dilakukan uji HSD 5 % dan 1 %

$HSD 5 \% = \frac{q (0,05; P, db / dk)}{\sqrt{2}} \sqrt{RJK \left(\frac{1}{nA} + \frac{1}{nB} \right)}$
$HSD 1 \% = \frac{q (0,01; P, db / dk)}{\sqrt{2}} \sqrt{RJK \left(\frac{1}{nA} + \frac{1}{nB} \right)}$

LAMPIRAN C

PERHITUNGAN ANAVA KADAR GLUKOSA DARAH PUASA TIKUS PUTIH PADA BERBAGAI WAKTU PENGAMATAN

Perhitungan Anava Kadar Glukosa Darah Puasa Tikus Putih (0 menit)
Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean			Minimum	Maximum
					Lower Bound	Upper Bound			
kontrol t0	5	70.8000	2.77489	1.24097	67.3545	74.2455	68.00	75.00	
75 : 25 t0	5	70.0000	7.00000	3.13050	61.3084	78.6916	61.00	78.00	
50 : 50 t0	5	71.4000	6.80441	3.04302	62.9512	79.8488	64.00	79.00	
25 : 75 t0	5	69.8000	5.80517	2.59615	62.5919	77.0081	63.00	76.00	
pembanding t0	5	69.6000	1.14018	.50990	68.1843	71.0157	68.00	71.00	
Total	25	70.3200	4.84527	.96905	68.3200	72.3200	61.00	79.00	
Model			5.25357	1.05071	68.1282	72.5118			
Fixed Effects				1.05071 ^a	67.4028 ^a	73.2372 ^a			
Random Effects									

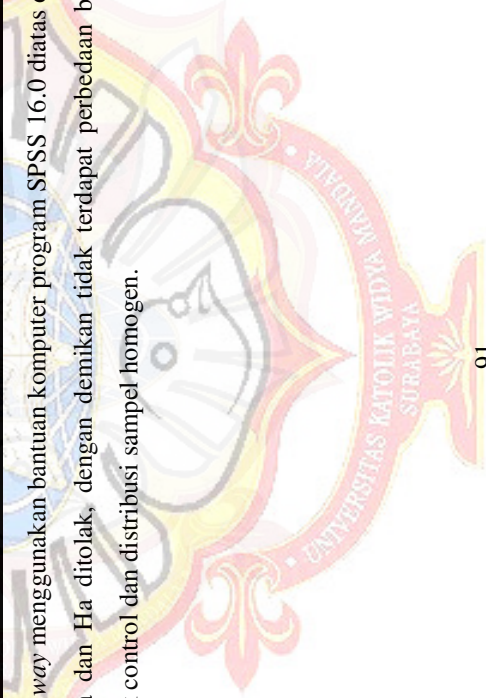
a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.



ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.440	4	2.860	.104	.980
Within Groups	552.000	20	27.600		
Total	563.440	24			

Dari hasil *anova one way* menggunakan bantuan komputer program SPSS 16.0 diatas dapat diketahui F hitung < F tabel, maka H_0 diterima dan H_a ditolak, dengan demikian tidak terdapat perbedaan bermakna antar kelompok perlakuan dengan kelompok control dan distribusi sampel homogen.



Perhitungan Anava Kadar Glukosa Darah Tikus Putih (30 menit)
Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol t30	5	121.4000	8.73499	3.90640	110.5541	132.2459	108.00	132.00
75 : 25 t30	5	115.8000	8.10555	3.62491	105.7356	125.8644	106.00	124.00
50 : 50 t30	5	115.2000	7.29383	3.26190	106.1435	124.2565	107.00	123.00
25 : 75 t30	5	116.6000	9.93982	4.44522	104.2581	128.9419	101.00	127.00
pembanding t30	5	90.2000	3.11448	1.39284	86.3329	94.0671	87.00	95.00
Total	25	111.8400	13.32504	2.66501	106.3397	117.3403	87.00	132.00
Model			7.79359	1.55872	108.5886	115.0914		
Fixed Effects				5.51957	96.5152	127.1648		
Random Effects								

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3046.560	4	761.640	12.539	.000
Within Groups	1214.800	20	60.740		
Total	4261.360	24			

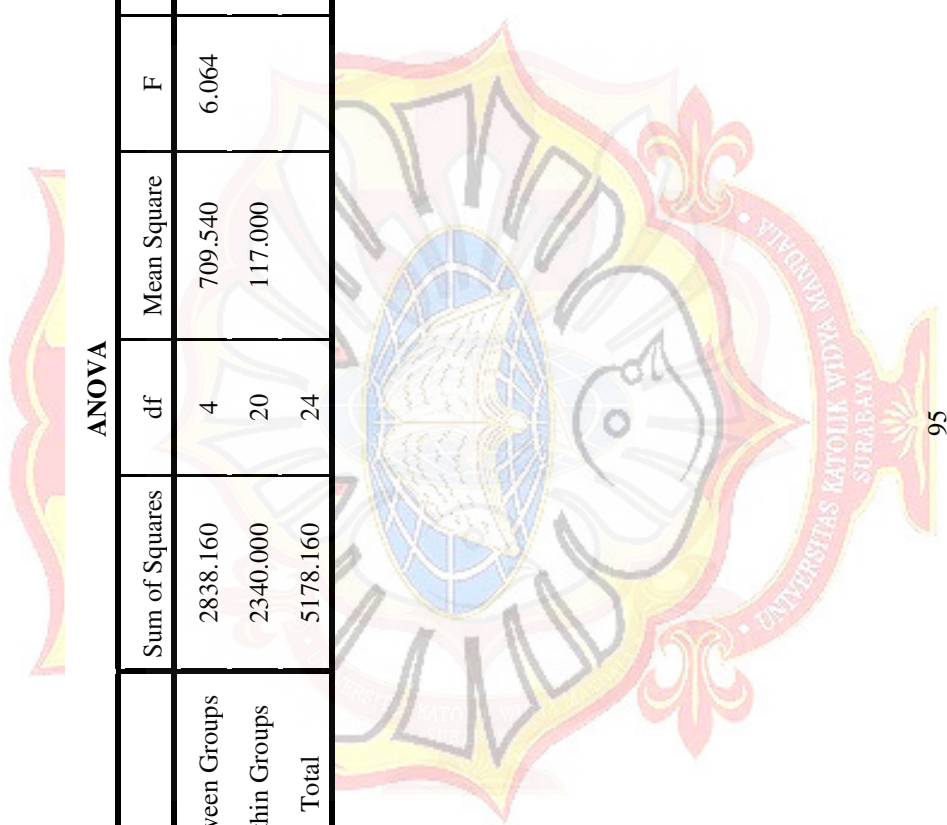


Perhitungan Anava Kadar Glukosa Darah Tikus Putih (60 menit) Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol t60	5	111.0000	9.79796	4.38178	98.8342	123.1658	101.00	125.00
75 : 25 t60	5	90.8000	6.68581	2.98998	82.4985	99.1015	81.00	98.00
50 : 50 t60	5	94.4000	18.43366	8.24379	71.5116	117.2884	68.00	113.00
25 : 75 t60	5	102.2000	9.44458	4.22374	90.4730	113.9270	92.00	114.00
pembandingan t60	5	79.4000	3.91152	1.74929	74.5432	84.2568	75.00	84.00
Total	25	95.5600	14.68866	2.93773	89.4968	101.6232	68.00	125.00
Mode			10.81665	2.16333	91.0474	100.0726		
Fixed Effects				5.32744	80.7687	110.3513		
Random Effects								

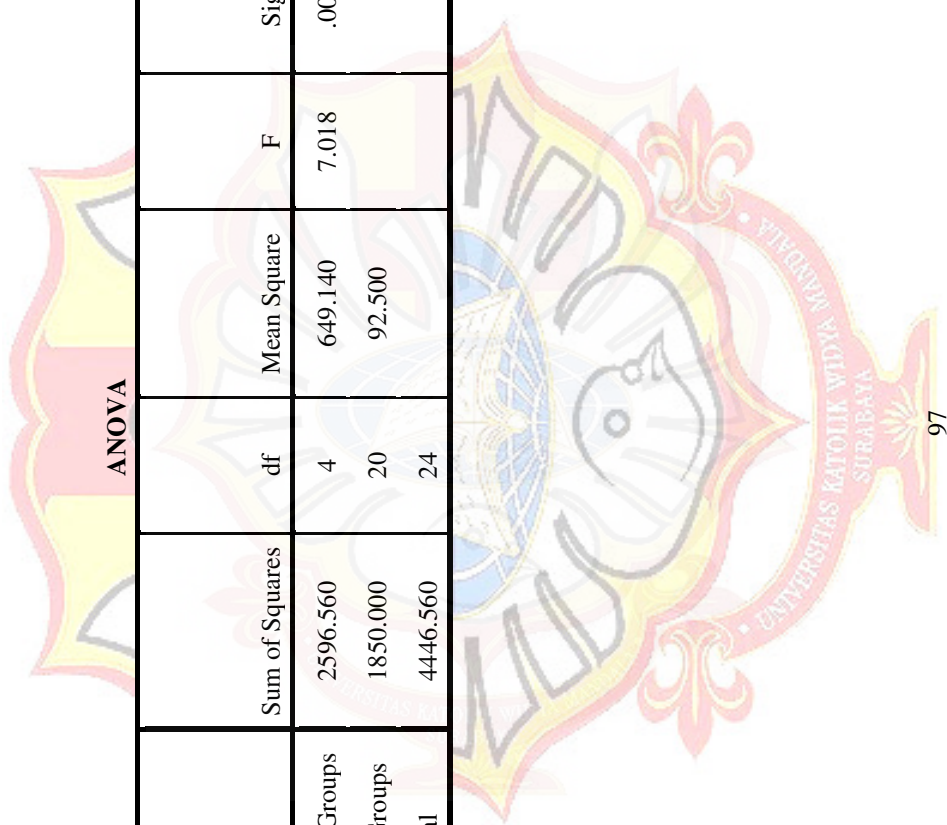
ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2838.160	4	709.540	6.064	.002
Within Groups	2340.000	20	117.000		
Total	5178.160	24			



Perhitungan Anava Kadar Glukosa Darah Tikus Putih (120 menit)
Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean			Minimum	Maximum
					Lower Bound	Upper Bound			
kontrol t120	5	98.6000	3.20936	1.43527	94.6151	102.5849	94.00	102.00	
75 : 25 t120	5	81.6000	9.88939	4.42267	69.3207	93.8793	67.00	93.00	
50 : 50 t120	5	87.8000	17.21046	7.69675	66.4304	109.1696	64.00	108.00	
25 : 75 t120	5	86.0000	7.10634	3.17805	77.1763	94.8237	80.00	96.00	
pembanding t120	5	67.2000	2.77489	1.24097	63.7545	70.6455	64.00	71.00	
Total	25	84.2400	13.61151	2.72230	78.6214	89.8586	64.00	108.00	
Model					80.2276	88.2524			
Fixed Effects									



ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2596.560	4	649.140	7.018	.001
Within Groups	1850.000	20	92.500		
Total	4446.560	24			

Perhitungan Anava Kadar Glukosa Darah Tikus Putih (180 menit)
Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol t180	5	84.6000	7.98749	3.57211	74.6822	94.5178	74.00	94.00
75 : 25 t180	5	72.6000	12.81796	5.73236	56.6844	88.5156	51.00	84.00
50 : 50 t180	5	80.0000	17.88854	8.00000	57.7884	102.2116	54.00	102.00
25 : 75 t180	5	80.0000	6.74537	3.01662	71.6245	88.3755	76.00	92.00
pembanding t180	5	60.8000	2.16795	.96954	58.1081	63.4919	58.00	63.00
Total	25	75.6000	13.12123	2.62425	70.1838	81.0162	51.00	102.00
Model			10.93892	2.18778	71.0364	80.1636		
Fixed Effects								
Random Effects				4.16989	64.0225	87.1775		

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1738.800	4	434.700	3.633	.022
Within Groups	2393.200	20	119.660		
Total	4132.000	24			

Dari hasil *anova one way* menggunakan bantuan komputer program SPSS 17.0 diatas dapat diketahui F hitung > F tabel, maka H_0 ditolak dan H_a diterima, dengan demikian ada perbedaan bermakna antar kelompok perlakuan dengan kelompok kontrol, maka dilanjutkan dengan uji HSD 5 % untuk melihat di mana letak perbedaan bermakna tiap kelompok.

LAMPIRAN D

PERHITUNGAN UJI HSD PADA BERBAGAI WAKTU PENGAMATAN

Perhitungan uji HSD pada menit ke 30
Multiple Comparisons

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol t30	75 : 25 t30	5.60000	4.92910	.786	-9.1497	20.3497
	50 : 50 t30	6.20000	4.92910	.719	-8.5497	20.9497
	25 : 75 t30	4.80000	4.92910	.864	-9.9497	19.5497
	pembanding t30	31.20000*	4.92910	.000	16.4503	45.9497
75 : 25 t30	kontrol t30	-5.60000	4.92910	.786	-20.3497	9.1497
	50 : 50 t30	.60000	4.92910	1.000	-14.1497	15.3497
	25 : 75 t30	-.80000	4.92910	1.000	-15.5497	13.9497
	pembanding t30	25.60000*	4.92910	.000	10.8503	40.3497

50 : 50 t30	kontrol t30	-6.20000	4.92910	.719	-20.9497	8.5497
	75 : 25 t30	-.60000	4.92910	1.000	-15.3497	14.1497
	25 : 75 t30	-1.40000	4.92910	.998	-16.1497	13.3497
	pembanding t30	25.00000*	4.92910	.001	10.2503	39.7497
25 : 75 t30	kontrol t30	-4.80000	4.92910	.864	-19.5497	9.9497
	75 : 25 t30	.80000	4.92910	1.000	-13.9497	15.5497
	50 : 50 t30	1.40000	4.92910	.998	-13.3497	16.1497
	pembanding t30	26.40000*	4.92910	.000	11.6503	41.1497
pembanding t30	kontrol t30	-31.20000*	4.92910	.000	-45.9497	-16.4503
	75 : 25 t30	-25.60000*	4.92910	.000	-40.3497	-10.8503
	50 : 50 t30	-25.00000*	4.92910	.001	-39.7497	-10.2503
	25 : 75 t30	-26.40000*	4.92910	.000	-41.1497	-11.6503

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

Perhitungan uji HSD pada menit ke 60
Multiple Comparisons

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol t60	75 : 25 t60	20.20000	6.84105	.054	-.2710	40.6710
	50 : 50 t60	16.60000	6.84105	.149	-3.8710	37.0710
	25 : 75 t60	8.80000	6.84105	.702	-11.6710	29.2710
	pembanding t60	31.60000*	6.84105	.001	11.1290	52.0710
75 : 25 t60	kontrol t60	-20.20000	6.84105	.054	-40.6710	.2710
	50 : 50 t60	-3.60000	6.84105	.984	-24.0710	16.8710
	25 : 75 t60	-11.40000	6.84105	.475	-31.8710	9.0710
	pembanding t60	11.40000	6.84105	.475	-9.0710	31.8710
50 : 50 t60	kontrol t60	-16.60000	6.84105	.149	-37.0710	3.8710
	75 : 25 t60	3.60000	6.84105	.984	-16.8710	24.0710

25 : 75 t60	-7.80000	6.84105	.784	-28.2710	12.6710
pembanding t60	15.00000	6.84105	.223	-5.4710	35.4710
25 : 75 t60	-8.80000	6.84105	.702	-29.2710	11.6710
kontrol t60	11.40000	6.84105	.475	-9.0710	31.8710
75 : 25 t60	7.80000	6.84105	.784	-12.6710	28.2710
50 : 50 t60	22.80000*	6.84105	.024	2.3290	43.2710
pembanding t60	-31.60000*	6.84105	.001	-52.0710	-11.1290
kontrol t60	-11.40000	6.84105	.475	-31.8710	9.0710
75 : 25 t60	-15.00000	6.84105	.223	-35.4710	5.4710
50 : 50 t60	-22.80000*	6.84105	.024	-43.2710	-2.3290
25 : 75 t60					

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

Perhitungan uji HSD pada menit ke 120
Multiple Comparisons

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol t120	75 : 25 t120	17.0000*	6.08276	.011	4.3116	29.6884
	50 : 50 t120	10.80000	6.08276	.091	-1.8884	23.4884
	25 : 75 t120	12.60000	6.08276	.051	-.0884	25.2884
	pembanding t120	31.40000*	6.08276	.000	18.7116	44.0884
75 : 25 t120	kontrol t120	-17.00000*	6.08276	.011	-29.6884	-4.3116
	50 : 50 t120	-6.20000	6.08276	.320	-18.8884	6.4884
	25 : 75 t120	-4.40000	6.08276	.478	-17.0884	8.2884
	pembanding t120	14.40000*	6.08276	.028	1.7116	27.0884
50 : 50 t120	kontrol t120	-10.80000	6.08276	.091	-23.4884	1.8884
	75 : 25 t120	6.20000	6.08276	.320	-6.4884	18.8884

25 : 75 t120	1.80000	6.08276	.770	-10.8884	14.4884
pembanding t120	20.60000*	6.08276	.003	7.9116	33.2884
25 : 75 t120	-12.60000	6.08276	.051	-25.2884	.0884
kontrol t120	4.40000	6.08276	.478	-8.2884	17.0884
75 : 25 t120	-1.80000	6.08276	.770	-14.4884	10.8884
50 : 50 t120	18.80000*	6.08276	.006	6.1116	31.4884
pembanding t120	-31.40000*	6.08276	.000	-44.0884	-18.7116
kontrol t120	-14.40000*	6.08276	.028	-27.0884	-1.7116
75 : 25 t120	-20.60000*	6.08276	.003	-33.2884	-7.9116
50 : 50 t120	-18.80000*	6.08276	.006	-31.4884	-6.1116
pembanding t120					
kontrol t120					
75 : 25 t120					
50 : 50 t120					
25 : 75 t120					

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

Perhitungan uji HSD pada menit ke 180
Multiple Comparisons

(I) perlakuan	(J) perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol t180	75 : 25 t180	12.00000	6.91838	.437	-8.7024	32.7024
	50 : 50 t180	4.60000	6.91838	.962	-16.1024	25.3024
	25 : 75 t180	4.60000	6.91838	.962	-16.1024	25.3024
	pembanding t180	23.80000*	6.91838	.019	3.0976	44.5024
75 : 25 t180	kontrol t180	-12.00000	6.91838	.437	-32.7024	8.7024
	50 : 50 t180	-7.40000	6.91838	.820	-28.1024	13.3024
	25 : 75 t180	-7.40000	6.91838	.820	-28.1024	13.3024
	pembanding t180	11.80000	6.91838	.453	-8.9024	32.5024
50 : 50 t180	kontrol t180	-4.60000	6.91838	.962	-25.3024	16.1024
	75 : 25 t180	7.40000	6.91838	.820	-13.3024	28.1024
	25 : 75 t180	.00000	6.91838	1.000	-20.7024	20.7024

	pembanding t180	19.20000	6.91838	.077	-1.5024	39.9024
25 : 75 t180	kontrol t180	-4.60000	6.91838	.962	-25.3024	16.1024
	75 : 25 t180	7.40000	6.91838	.820	-13.3024	28.1024
	50 : 50 t180	.00000	6.91838	1.000	-20.7024	20.7024
	pembanding t180	19.20000	6.91838	.077	-1.5024	39.9024
pembanding t180	kontrol t180	-23.80000*	6.91838	.019	-44.5024	-3.0976
	75 : 25 t180	-11.80000	6.91838	.453	-32.5024	8.9024
	50 : 50 t180	-19.20000	6.91838	.077	-39.9024	1.5024
	25 : 75 t180	-19.20000	6.91838	.077	-39.9024	1.5024

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

LAMPIRAN E
TABEL DERAJAT KEBEBASAN

Baris pertama pada setiap pasangan baris adalah titik pada distribusi F untuk aras 0.05; baris kedua untuk aras 0.01.

		Derajat kebebasan untuk rataan kuadrat yang lebih besar																											
		1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞				
Derajat kebebasan untuk rataan kuadrat yang lebih kecil.	16	4.49 8.53	3.63 6.23	3.24 5.29	3.01 4.77	2.85 4.44	2.74 4.20	2.66 4.03	2.59 3.89	2.54 3.78	2.49 3.69	2.45 3.61	2.42 3.55	2.37 3.45	2.33 3.37	2.28 3.25	2.24 3.18	2.20 3.10	2.16 3.01	2.13 2.96	2.09 2.89	2.07 2.86	2.04 2.80	2.02 2.77	2.01				
	17	4.45 8.40	3.59 6.11	3.20 5.18	2.96 4.67	2.81 4.34	2.70 4.10	2.62 3.93	2.55 3.79	2.50 3.68	2.45 3.59	2.41 3.52	2.38 3.45	2.33 3.35	2.29 3.27	2.23 3.16	2.19 3.08	2.15 3.00	2.11 2.92	2.08 2.86	2.04 2.79	2.02 2.76	1.99 2.70	1.97 2.67	1.96				
	18	4.41 8.26	3.55 6.01	3.16 5.09	2.93 4.58	2.77 4.25	2.66 4.01	2.58 3.85	2.51 3.71	2.46 3.60	2.41 3.51	2.37 3.44	2.34 3.37	2.29 3.27	2.25 3.19	2.19 3.07	2.15 3.00	2.11 2.91	2.07 2.83	2.04 2.78	2.00 2.71	1.98 2.68	1.95 2.62	1.93 2.59	1.92				
	19	4.38 8.18	3.52 5.93	3.13 5.01	2.90 4.50	2.74 4.17	2.63 3.94	2.55 3.77	2.48 3.63	2.43 3.52	2.38 3.43	2.34 3.36	2.31 3.30	2.26 3.19	2.21 3.12	2.15 3.00	2.11 2.92	2.07 2.84	2.02 2.76	2.00 2.70	1.96 2.63	1.94 2.60	1.91 2.54	1.90					
	20	4.35 8.10	3.49 5.85	3.10 4.94	2.87 4.43	2.71 4.10	2.60 3.87	2.52 3.71	2.45 3.56	2.40 3.45	2.35 3.37	2.31 3.30	2.28 3.23	2.23 3.13	2.18 3.05	2.12 2.94	2.08 2.86	2.04 2.77	1.99 2.69	1.96 2.63	1.92 2.56	1.90 2.53	1.87 2.47	1.85					
	21	4.32 8.02	3.47 5.78	3.07 4.87	2.84 4.37	2.68 4.04	2.57 3.81	2.49 3.65	2.42 3.51	2.37 3.43	2.32 3.31	2.28 3.24	2.25 3.17	2.20 3.07	2.15 2.99	2.09 2.86	2.05 2.80	2.00 2.72	1.96 2.63	1.93 2.56	1.90 2.51	1.87 2.47	1.84						
	22	4.30 7.94	3.44 5.72	3.05 4.82	2.82 4.31	2.66 3.99	2.55 3.76	2.47 3.59	2.40 3.45	2.35 3.35	2.30 3.26	2.26 3.18	2.23 3.12	2.18 3.02	2.13 2.94	2.07 2.83	2.03 2.75	1.98 2.67	1.93 2.58	1.91 2.53	1.87 2.46	1.84							
	23	4.28 7.88	3.42 5.66	3.03 4.76	2.80 4.26	2.64 3.94	2.53 3.71	2.45 3.54	2.38 3.41	2.32 3.30	2.28 3.25	2.24 3.17	2.20 3.09	2.14 2.93	2.10 2.85	2.04 2.74	2.00 2.66	1.96 2.58	1.91 2.49	1.88 2.44	1.84								
	24	4.26 7.82	3.40 5.61	3.01 4.72	2.78 4.22	2.62 3.90	2.51 3.67	2.43 3.50	2.36 3.36	2.30 3.25	2.26 3.17	2.22 3.09	2.18 3.03	2.13 2.93	2.09 2.85	2.02 2.74	1.98 2.66	1.94 2.58	1.89 2.49	1.86 2.44	1.82								
	25	4.24 7.77	3.38 5.57	2.99 4.66	2.76 4.18	2.60 3.86	2.49 3.63	2.41 3.46	2.34 3.32	2.28 3.21	2.24 3.13	2.20 3.05	2.16 2.99	2.11 2.89	2.06 2.81	2.00 2.70	1.96 2.62	1.92 2.54	1.87 2.45	1.84 2.40	1.80								
	26	4.22 7.72	3.37 5.53	2.89 4.64	2.74 4.14	2.59 3.82	2.47 3.59	2.39 3.42	2.32 3.29	2.27 3.17	2.22 3.09	2.18 3.02	2.15 2.96	2.10 2.86	2.05 2.77	1.99 2.66	1.95 2.58	1.90 2.50	1.85 2.41	1.82 2.36	1.78								
	27	4.21 7.68	3.35 5.49	2.96 4.60	2.73 4.11	2.57 3.79	2.46 3.56	2.37 3.39	2.30 3.26	2.25 3.14	2.20 3.06	2.16 2.98	2.13 2.93	2.08 2.83	2.03 2.74	1.97 2.63	1.93 2.55	1.88 2.47	1.84 2.38	1.80									
	28	4.20 7.64	3.34 5.45	2.95 4.57	2.71 4.07	2.56 3.76	2.44 3.53	2.36 3.36	2.29 3.23	2.24 3.11	2.19 3.03	2.15 2.95	2.12 2.90	2.06 2.80	2.02 2.71	1.96 2.60	1.91 2.52	1.87 2.44	1.81 2.35	1.78									
	29	4.18 7.60	3.33 5.52	2.93 4.54	2.70 4.04	2.54 3.73	2.43 3.50	2.35 3.32	2.28 3.20	2.22 3.08	2.18 2.92	2.14 2.87	2.10 2.77	2.05 2.68	2.00 2.57	1.94 2.49	1.90 2.41	1.85 2.32	1.80										
	30	4.17 7.56	3.32 5.39	2.92 4.51	2.69 4.02	2.53 3.70	2.42 3.47	2.34 3.30	2.27 3.17	2.21 3.06	2.16 2.98	2.12 2.90	2.09 2.84	2.04 2.74	1.99 2.66	1.93 2.55	1.89 2.47	1.84 2.38	1.79										

LAMPIRAN F
TABEL UJI HSD (0,05)

k d. k.	2	3	4	5	6	7	8	9	10	11
5	3.64	4.60	5.22	5.67	6.03	6.33	6.58	6.80	6.99	7.17
6	3.46	4.34	4.90	5.30	5.63	5.90	6.12	6.32	6.49	6.65
7	3.34	4.16	4.68	5.06	5.36	5.61	5.82	6.00	6.16	6.30
8	3.26	4.01	4.53	4.89	5.17	5.40	5.60	5.77	5.92	6.05
9	3.20	3.95	4.41	4.76	5.02	5.24	5.43	5.59	5.74	5.87
10	3.15	3.88	4.33	4.65	4.91	5.12	5.30	5.46	5.60	5.72
11	3.11	3.82	4.26	4.57	4.82	5.03	5.20	5.35	5.49	5.61
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.39	5.51
13	3.06	3.73	4.15	4.45	4.69	4.88	5.05	5.19	5.32	5.43
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25	5.36
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20	5.31
16	3.00	3.65	4.05	4.33	4.56	4.74	4.90	5.03	5.15	5.26
17	2.98	3.63	4.02	4.30	4.52	4.71	4.86	4.99	5.11	5.21
18	2.97	3.61	4.00	4.28	4.49	4.67	4.82	4.96	5.07	5.17
19	2.96	3.59	3.98	4.25	4.47	4.65	4.79	4.92	5.04	5.14
20	2.95	3.58	3.96	4.23	4.45	4.62	4.77	4.90	5.01	5.11
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92	5.01
30	2.89	3.49	3.85	4.10	4.30	4.46	4.60	4.72	4.82	4.92
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.73	4.82
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65	4.73
120	2.80	3.36	3.68	3.92	4.10	4.24	4.36	4.47	4.56	4.64
∞	2.77	3.31	3.63	3.86	4.03	4.17	4.29	4.39	4.47	4.55

Catatan kaki: Dari *Annals of mathematical statistics*. Diulang cetak seizin penerbit, The Institute of Mathematical Statistics.

Sumber : Scheffler (1987)

LAMPIRAN G
TABEL UJI HSD 1%


k d. k.	2	3	4	5	6	7	8	9	10	11
5	5.70	6.98	7.80	8.42	8.91	9.32	9.67	9.97	10.24	10.48
6	5.24	6.33	7.03	7.56	7.97	8.32	8.61		9.10	9.30
7	4.95	5.92	6.54	7.01	7.37	7.68	7.94		8.37	8.55
8	4.75	5.64	6.20	6.62	6.96	7.24	7.47	7.68	7.86	8.03
9	4.60	5.43	5.96	6.35	6.66	6.91	7.15	7.33	7.49	7.65
10	4.48	5.27	5.77	6.14	6.43	6.67	6.87	7.05	7.21	7.36
11	4.39	5.15	5.62	5.97	6.25	6.48	6.67	6.84	6.99	7.13
12	4.32	5.05	5.50	5.84	6.10	6.32	6.51	6.67	6.81	6.94
13	4.26	4.96	5.40	5.73	5.98	6.19	6.37	6.53	6.67	6.79
14	4.21	4.89	5.32	5.63	5.88	6.08	6.26	6.41	6.54	6.66
15	4.17	4.84	5.25	5.56	5.80	5.99	6.16	6.31	6.44	6.55
16	4.13	4.79	5.19	5.49	5.72	5.92	6.08	6.22	6.35	6.46
17	4.10	4.74	5.14	5.43	5.66	5.85	6.01	6.15	6.27	6.38
18	4.07	4.70	5.09	5.38	5.60	5.79	5.94	6.08	6.20	6.31
19	4.05	4.67	5.05	5.33	5.55	5.73	5.89	6.02	6.14	6.25
20	4.02	4.64	5.02	5.29	5.51	5.69	5.84	5.97	6.09	6.19
24	3.96	4.55	4.91	5.17	5.37	5.54	5.69	5.81	5.92	6.02
30	3.89	4.45	4.80	5.05	5.24	5.40	5.54	5.65	5.76	5.85
40	3.82	4.37	4.70	4.93	5.11	5.26	5.39	5.50	5.60	5.67
60	3.76	4.28	4.59	4.82	4.99	5.13	5.25	5.36	5.45	5.53
120	3.70	4.20	4.50	4.71	4.87	5.01	5.12	5.21	5.30	5.38
∞	3.64	4.12	4.40	4.60	4.76	4.88	4.99	5.08	5.16	5.23

LAMPIRAN H
TABEL KORELASI (r)

DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT	DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT
1	.997	1.000	24	.388	.496
2	.950	.990	25	.381	.487
3	.878	.959	26	.374	.478
4	.811	.917	27	.367	.470
5	.754	.874	28	.361	.463
6	.707	.834	29	.355	.456
7	.666	.798	30	.349	.449
8	.632	.765	35	.325	.418
9	.602	.735	40	.304	.393
10	.576	.708	48	.288	.372
11	.553	.684	50	.273	.354
12	.532	.661	60	.250	.325
13	.514	.641	70	.232	.302
14	.497	.623	80	.217	.283
15	.482	.606	90	.205	.267
16	.468	.590	100	.195	.254
17	.456	.575	125	.174	.228
18	.444	.561	150	.159	.208
19	.433	.549	200	.138	.181
20	.423	.537	300	.113	.148
21	.413	.526	400	.098	.128
22	.404	.515	500	.088	.115
23	.396	.505	1000	.062	.081

Sumber : Soedigdo S., Soedigdo P., 1977

LAMPIRAN I
SURAT DETERMINASI TANAMAN BELIMBING MANIS

**DINAS KESEHATAN PROPINSI JAWA TIMUR**
UPT MATERIA MEDICA
Jalan Lahor No.87 Telp. (0341) 593396 Batu (65313)
KOTA BATU

Nomor : 074 / 041 / 101.8 / 2012
Sifat : Biasa
Perihal : **Determinasi Tanaman Belimbing manis**

Memenuhi permohonan saudara :
Nama : IGNASIUS JEFFREY
N I M : 2443007011
Fakultas : Fakultas Farmasi
Universitas Widya Mandala Surabaya

1. Perihal determinasi tanaman Belimbing manis
Kingdom : Plantae (Tumbuhan)
Subkingdom : Tracheobionta (Tumbuhan berpembuluh)
Super Divisi : Spermatophyta (Menghasilkan biji)
Divisi : Magnoliophyta (Tumbuhan berbunga)
Sub divisi : Angiospermae.
Kelas : Dicotyledonae
Bangsa : Geraniales
Suku : Oxalidaceae
Marga : *Averrhoa*
Jenis : *Averrhoa carambola L.*
Sinonim : *Averrhoa pentandra* Blanco.
Belimbing manis (Indonesia), Belimbing manih (Minangkabau);
Belimbing legi (Jawa), Belimbing amis (Sunda), ; Bhalimbing manes
(Madura), Balirang (Bugis)

Kunci determinasi : 1b - 2b - 3b - 4b - 6b - 7b - 9b - 10b - 11b - 12 b - 13b - 14a - 15
b - 197b - 208b - 219b - 220 b - 224 b - 225 b - 225 b - 227 b -
229 b - 230 b - 234 b - 235b - 236 b - 237 b - 238 b - 1a - 1a

2. Nama Simplisia : *Averrhoa Foliu*m/ Daun Belimbing Manis.

3. Kandungan kimia : Batang: Saponin, tanin, glucoiside, calcium oksalat, sulfur, asam format, peroksidase. Daun: Tanin, sulfur, asam format, peroksidase, calcium oksalat, kalium sitrat, alkaloida, saponin dan Flavonojida. Buah : Glukosida, vitamin B, dan vitamin C.


4. Penggunaan : Penelitian

5. Daftar Pustaka :



- Anonim, <http://www.plantamor.com/belimbing>, diakses tanggal 17 Desember 2010
- Anonim, <http://www.ipteknet.com/belimbing>, diakses tanggal 21 Oktober 2010
- Anonim, <http://www.warintek.com/belimbing> diakses tanggal 23 Oktober 2010
- Steenis, C.G.G.J Van Dr, *FLORA*, 2008, Pradnya Paramita, Jakarta
- Syamsuhidayat, Sri sugati, Hutapea, Johnny Ria.1991, *Inventaris Tanaman Obat Indonesia I*, Departemen Kesehatan Republik Indonesia : Badan Penelitian Dan Pengembangan Kesehatan.

Demikian determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu, 24 Januari 2012
Kepala UPT Materia Medica Batu


Drs. Husein H.M. A.P. M.Kes
NIP.196111021991031003

LAMPIRAN J
SURAT DETERMINASI TANAMAN ALPUKAT

	DINAS KESEHATAN PROPINSI JAWA TIMUR UPT MATERIA MEDICA Jalan Lahor No.87 Telp. (0341) 593396 Batu (65313) KOTA BATU
<hr/>	
Nomor	: 074 / 040 / 101.8 / 2012
Sifat	: Biasa
Perihal	: <u>Determinasi Tanaman alpukat</u>
Memenuhi permohonan saudara :	
Nama	: IGNASIUS JEFFREY
N I M	: 2443007011
Fakultas	: Fakultas Farmasi Universitas Widya Mandala Surabaya
<hr/>	
1. Perihal determinasi tanaman Alpukat	
Divisi	: Spermatophyta
Sub divisi	: Angiospermae
Kelas	: Monocotyledonae
Bangsa	: Ranunculales
Suku	: Lauraceae
Marga	: Persea
Jenis	: <i>Persea gratissima Gaertn</i>
Sinonim	: <i>P. americana</i> , Mill Apuket, alpuket, jambu wolanda (Sunda), apokat, avokat, plokot (Jawa), apokat, alpokat, avokat, advokat (Sumatera);
Kunci determinasi	: 2a-27a-28b-29b-30b-31a84b-88b-89b-91a-109b-119b-120b- 128b-129a-135b-136b-139b-140b-142a-143a-146-154b-155b- 156b-162b-163a-164b-165a-2a-2
2. Nama Simplisia	: Perseeae Fructus / Buah alpukat
3. Kandungan kimia	: Buah dan daun mengandung saponin, alkaloida dan flavonoida, Buah juga mengandung tanin dan daun mengandung polifenol, quersetin, gula alkohol persiit.
4. Penggunaan	: Penelitian
5. Daftar Pustaka	: <ul style="list-style-type: none">• Anonim, http://www.plantamaor.com/alpukat, diakses tanggal 14 Desember 2010• Anonim, http://ipteknet.com/alpukat, diakses tanggal 21 Oktober 2010• Anonim, http://warintek.com/alpukat, diakses tanggal 22 Oktober 2010• Steenis, CGGJ Van Dr, <i>FLORA</i>, 2008, Pradnya Paramita, Jakarta• Syamsuhidayat, Sri sugati, Hutapea, Johny Ria.1991, <i>Inventaris Tanaman Obat Indonesia I</i>, Departemen Kesehatan Republik Indonesia : Badan Penelitian Dan Pengembangan Kesehatan.
<hr/>	
Demikian determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.	
Batu, 24 Januari 2012 Kepala UPT Materia Medica Batu	
	

LAMPIRAN K

SERTIFIKAT GLIBENCLAMIDE

FROM :

FRY NO. :

Jun. 20 2011 10:21PM P1

1234/11



7303, G.L.D.C. Estate,
Ankleshwar - 393002
Gujarat, India.

Phone : +91-2646-250174/220178
Fax : +91-2646-226519
Website : www.cadilapharma.com

Name of Finished Product		Glibenclamide BP/ Ph. Eur.	
Manufactured By		Cadila Pharmaceuticals Limited, Ankleshwar	
Lot No.	10L021	A.R.NO.	1P10101
Manufacturing Date	APRIL 2011	Qty. Mfgd.	270.10 kg.
Expiry Date:	MARCH 2016		
Certificate of Analysis			
Test	Requirements	Results	
Characteristics	A white or almost white crystalline powder	White crystalline powder.	
Appearance	Practically insoluble in water, sparingly soluble in methylene chloride, slightly soluble in alcohol and in methanol.	Practically insoluble in water, sparingly soluble in methylene chloride, slightly soluble in alcohol and in methanol.	
Identification A) Melting point. C) IR	Melting Point: 100°C to 110°C Residue after ignition: absorption spectrum, compared with reference spectrum obtained with Glibenclamide standard substance. Residue on ignition: as disc prepared using potassium bichromate. If the spectra obtained show differences, solution separated the substance with methanol, trimethylamine, dry at 100°C for 15°C and record the spectrum again.	172.1°C Matches with working standard.	
Related substances (By HPLC)	Not more than 0.5 %	0.04 %	
1. Impurity A	Not more than 0.5 %	0.03 %	
2. Impurity B	Not more than 0.2 %	Below Detection Limit	
3. Unknown Impurity 1	Not more than 0.1 %	Below Detection Limit	
4. Unknown Impurity 2	Not more than 0.1 %	Below Detection Limit	
5. Unknown Impurity 3	Not more than 0.1 %	Below Detection Limit	
6. Total of other Impurity	Not more than 0.5 %	Below Detection Limit	
Heavy metals	Not more than 20 ppm (Determined on 1.0 g)	Less than 20 ppm	
Loss on drying	Not more than 1.0 % (Determined on 1.0 g by drying in an oven at 100 to 105°C)	0.35 % w/w	
Substance ash	Not more than 0.1 % (Determined on 1.0 g.)	0.66 % w/w	
Assay	Not less than 99.0 % and not more than the equivalent of 101.0 % of C ₁₂ H ₁₆ O ₅ N ₂ S, calculated with reference to the dried substance.	99.7 % w/w	
Remarks: The material complies with respect to the BP/ Ph. Eur. Specifications.			
Prepared By	Checked By	Approved By	
Date	Date	Date	

Corporate Office :
"Cadila Corporate Campus",
Surbh-Dhule Road, Him,
Ankleshwar - 392 110, Gujarat, India.

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The Case Continues...

LAMPIRAN L

DATA QUALITY CONTROL

Nilai yang tertera pada tabel standart *serum control* untuk *glucose* adalah 82,8-1414 mg/dL(590009983061)

Data ke-	Hasil	Interpretasi
1	97	Memenuhi Syarat
2	98	Memenuhi Syarat
3	97	Memenuhi Syarat
Rata-rata	97,33	Memenuhi Syarat
SD	97±0,47	Memenuhi Syarat

