LAMPIRAN A

HASIL PEMERIKSAAN STANDARISASI PARAMETRIK

SIMPLISIA RIMPANG KENCUR

A. HASIL PEMERIKSAAN ORGANOLEPTIS SIMPLISIA RIMPANG KENCUR

Pemeriksaan	Simplisia Rimpang Kencur
Bentuk	Serbuk
Warna	Coklat muda
Bau	Khas aromatik
Rasa	Pedas, pahit

B. HASIL PENENTUAN pH SIMPLISIA RIMPANG KENCUR

Replikasi	Simplisia Rimpang Kencur
I	6,44
II	6,22
III	6,50
$\overline{X}$ ± SD	6,38 ± 0,15

C. HASIL PENENTUAN TITIK LELEH SIMPLISIA RIMPANG KENCUR

Replikasi	Simplisia Rimpang Kencur
I	128.4
II	141.3
III	140.7
$\overline{X}$ ± SD	136.8 ± 7,28

D. HASIL PENENTUAN KADAR SARI LARUT AIR SIMPLISIA RIMPANG KENCUR

Tanaman	Replikasi	Berat cawan(g)	Berat ekstrak (g)	Pemanasan I	Pemanasan II	% kadar
Simplisia Rimpang Kencur	1	53,5160	5,0021	53,9519	53,9507	43,45
	2	44,7672	5,0032	44,9640	44,9613	19,39
	3	50,0031	5,0011	50,3029	50,2995	29,63
	$\overline{X}$ ± SD					30,82±12,07

E. HASIL PENENTUAN KADAR SARI LARUT ETANOL SIMPLISIA RIMPANG KENCUR

Tanaman	Replikasi	Berat cawan(g)	Berat ekstrak (g)	Pemanasan I	Pemanasan II	% kadar
Simplisia Rimpang Kencur	1	35,6132	5,0018	35,6869	35,6897	7,65
	2	42,0827	5,0021	42,1623	42,1617	7,89
	3	33,2363	5,0011	33,3140	33,3140	7,97
	$\overline{X}$ ± SD					7,84 ±0,17

LAMPIRAN B

HASIL PEMERIKSAAN STANDARISASI NON PARAMETRIK

SIMPLISIA RIMPANG KENCUR

A. HASIL PENENTUAN KADAR AIR SIMPLISIA RIMPANG KENCUR

Tanaman	Rep	Berat cawan (g)	Berat ekstrak (g)	Berat cawan+ekstrak konstan (g)	% kadar
Simplisia Rimpang Kencur	I	44,9453	10,0014	54,1202	8,26
	II	47,1809	10,0018	56,4305	7,52
	III	42,1076	9,9998	51,3802	7,27
	$\overline{X}$ ± SD				7,68 ± 0.51

B. HASIL PENENTUAN KADAR ABU TOTAL SIMPLISIA RIMPANG KENCUR

Tanaman	Rep	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	% kadar
Simplisia Rimpang Kencur	I	34,1918	3,0009	34,4143	7,41
	II	32,7704	3,0012	33,0041	7,79
	III	32,6087	3,0011	32,8376	7,63
	$\overline{X}$ ± SD				7,61 ± 0,19

C. HASIL PENETAPAN KADAR ABU TIDAK LARUT ASAM SIMPLISIA RIMPANG KENCUR

Tanaman	Rep	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+HCl konstan (g)	% kadar
Simplisia Rimpang Kencur	I	24,2586	3,0009	24,4781	24,2623	1,7
	II	34,6405	3,0012	34,8909	34,6457	2,1
	III	35,2132	3,0011	35,4559	35,2168	1,5
	$\overline{X}$ ±SD					1,77 ± 0,30

D. HASIL PENETAPAN KADAR ABU LARUT AIR SIMPLISIA RIMPANG KENCUR

Tanaman	Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+ aquadest (g)	% kadar
Simplisia Rimpang Kencur	I	34,1918	3,0009	34,4143	34,3259	39,73
	II	32,7704	3,0012	33,0041	32,9263	33,29
	III	32,6087	3,0011	32,8376	32,7517	37,53
	$\overline{X}$ ± SD					36,85 ± 3,27

E. HASIL PENETAPAN SUSUT PENGERINGAN SIMPLISIA RIMPANG KENCUR

Replikasi	Simplisia rimpang kencur
I	7
II	7,5
III	7,3
$\overline{X}$ ± SD	7,27 ± 0,25

LAMPIRAN C

HASIL PEMERIKSAAN STANDARISASI PARAMETRIK

EKSTRAK RIMPANG KENCUR

A. PEMERIKSAAN ORGANOLEPTIS EKSTRAK RIMPANG KENCUR

Pemeriksaan	Ekstrak Rimpang Kencur
Bentuk	Ekstrak kental
Warna	Coklat kehitaman
Bau	Khas aromatik
Rasa	Pedas, pahit

B. HASIL PENENTUAN pH EKSTRAK RIMPANG KENCUR

Replikasi	Ekstrak Rimpang Kencur
I	5,35
II	5,34
III	65,36
$\overline{X}$ ± SD	5,35 ± 0,01

C. HASIL UJI KEKENTALAN EKSTRAK

Replikasi	Waktu (detik)
I	17
II	18
III	17
$\overline{X}$ ± SD	17,33 ± 0,57

LAMPIRAN D

HASIL PEMERIKSAAN STANDARISASI NON PARAMETRIK

EKSTRAK RIMPANG KENCUR

A. HASIL PENENTUAN KADAR ABU TOTAL EKSTRAK RIMPANG KENCUR

Tanaman	Rep	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	% kadar
Ekstrak Rimpang Kencur	I	34,4348	3,0120	34,9875	18,35
	II	32,9808	3,0420	33,4723	16,17
	III	33,2752	3,0325	33,8071	17,54
	$\overline{X}$ ± SD				17,35 ± 1,10

B. HASIL PENETAPAN KADAR ABU TIDAK LARUT ASAM EKSTRAK RIMPANG KENCUR

Tanaman	Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+HCl konstan (g)	% kadar
Ekstrak Rimpang Kencur	I	34,7089	3,0120	35,2713	34,8290	21,35
	II	34,4348	3,0420	34,9875	34,5507	20,98
	III	33,2752	3,0325	33,8071	33,3838	20,42
	$\overline{X}$ ± SD					20,92 ± 0,47

C. HASIL PENETAPAN KADAR ABU LARUT AIR EKSTRAK RIMPANG KENCUR

Tanaman	Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+ aquadest (g)	% kadar
Ekstrak Rimpang Kencur	I	33,8660	3,0120	34,4007	34,0233	70,58
	II	32,9969	3,0420	33,4863	33,1451	69,71
	III	32,9808	3,0325	33,4723	33,1277	70,11
	$\overline{X}$ ± SD					70,13 ± 0,43

LAMPIRAN E

HASIL UJI MUTU FISIK GRANUL

A. HASIL UJI KADAR AIR GRANUL

Formula	Replikasi	Bets 1	Bets 2	Persyaratan
A	1	4.09	1.55	2-5% (Marshall dan Rudnic, 1990)
	2	2.25	2.72	
	3	2.51	2.58	
	$\overline{X}$ ± SD	2.95 ± 0.99	2.28 ± 0.64	
B	1	2.34	2.87	
	2	2.88	2.74	
	3	2.58	2.74	
	$\overline{X}$ ± SD	2.6 ± 0.27	2.78 ± 0.07	
C	1	2.89	2.07	
	2	2.5	2.74	
	3	2.52	2.17	
	$\overline{X}$ ± SD	2.64 ± 0.22	2.33 ± 0.36	
D	1	2.47	2.74	
	2	2.62	2.94	
	3	3.1	3.09	
	$\overline{X}$ ± SD	2.73 ± 0.33	2.92 ± 0.17	

B. HASIL UJI WKTU ALIR GRANUL

Formula	Replikasi	Bets 1	Bets 2	Persyaratan
A	1	17.27	18.19	Tidak lebih dari 10 detik (Marshall dan Rudnic, 1990)
	2	18.57	19.81	
	3	18.66	19.96	
	$\overline{X}$ ± SD	18.17 ± 0.78	19.32 ± 0.98	
B	1	6.29	4.49	
	2	6.84	4.19	
	3	6.2	4.79	
	$\overline{X}$ ± SD	6.44 ± 0.35	4.49 ± 0.30	
C	1	7.69	5.37	
	2	7.32	5.45	
	3	7.32	5.4	
	$\overline{X}$ ± SD	7.44 ± 0.21	5.41 ± 0.04	
D	1	7.98	6.29	
	2	7.21	6.05	
	3	7.86	6.3	
	$\overline{X}$ ± SD	7.68 ± 0.41	6.21 ± 0.14	

C. HASIL UJI SUDUT DIAM GRANUL

Formula	Replikasi	Bets 1	Bets 2	Persyaratan
A	1	32.43	33.7	25˚-30˚= baik 30˚-40˚= cukup baik (Wells, 1988)
	2	33.96	33.02	
	3	34.39	34.07	
	$\overline{X}$ ± SD	33.59 ±1.03	33.59 ± 0.53	
B	1	30.42	27.91	
	2	32.22	28.13	
	3	31.24	30.76	
	$\overline{X}$ ± SD	31.29 ± 0.90	28.93 ± 1.58	
C	1	32.29	26.19	
	2	31.37	28.51	
	3	32.37	28.75	
	$\overline{X}$ ± SD	32.01 ± 0.55	27.82 ± 1.41	
D	1	29.71	28.41	
	2	30.44	26.54	
	3	30.45	27.1	
	$\overline{X}$ ± SD	30.2 ± 0.42	27.35 ± 0.96	

D. HASIL UJI INDEKS KOMPRESIBILITAS GRANUL

Formula	Replikasi	Bets 1	Bets 2	Persyaratan
A	1	10	11	5-15% = sangat baik (Welss, 1988)
	2	12	14	
	3	12	13	
	$\overline{X}$ ± SD	11.33 ±1.15	12.67 ± 1.53	
B	1	14	11	
	2	14	14	
	3	13	12	
	$\overline{X}$ ± SD	13.67 ± 0.58	12.33 ± 1.53	
C	1	15	10	
	2	16	12	
	3	15	11	
	$\overline{X}$ ± SD	15.33 ± 0.58	11 ± 1	
D	1	11	12	
	2	13	13	
	3	12	11	
	$\overline{X}$ ± SD	12 ± 1	12 ± 1	

LAMPIRAN F
HASIL UJI MUTU FISIK TABLET HISAP

A. HASIL UJI KESERAGAMAN BOBOT

FORMULA A

No.	Replikasi 1				Replikasi 2				Replikasi 3			
	Bets 1		Bets 2		Bets 1		Bets 2		Bets 1		Bets 2	
	Bobot (mg)	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**
1	0.6561	0.11	0.6584	0.56	0.657	0.42	0.6569	1.31	0.6567	0.14	0.649	1.84
2	0.6649	1.23	0.6648	0.40	0.656	0.27	0.6713	0.85	0.6596	0.30	0.6512	1.51
3	0.6486	1.25	0.6466	2.34	0.6477	1.00	0.6607	0.74	0.6703	1.93	0.6718	1.61
4	0.6669	1.54	0.6457	2.47	0.666	1.80	0.6686	0.45	0.6611	0.53	0.6685	1.11
5	0.6659	1.38	0.6674	0.80	0.6386	2.39	0.6776	1.80	0.6646	1.06	0.647	2.14
6	0.6484	1.28	0.6619	0.03	0.6356	2.85	0.6712	0.84	0.642	2.37	0.675	2.09
7	0.626	4.69	0.6754	2.01	0.6597	0.84	0.6672	0.24	0.6478	1.49	0.6771	2.41
8	0.6754	2.83	0.6652	0.46	0.6599	0.87	0.6722	0.99	0.6542	0.52	0.6619	0.11
9	0.6617	0.74	0.6584	0.56	0.6535	0.11	0.6599	0.86	0.6582	0.09	0.6475	2.07
10	0.6505	0.96	0.6732	1.67	0.6469	1.12	0.6692	0.54	0.6514	0.94	0.6675	0.96

11	0.6539	0.44	0.6501	1.82	0.6545	0.04	0.6489	2.51	0.65	1.16	0.6716	1.58
12	0.667	1.55	0.6649	0.42	0.6544	0.03	0.6755	1.49	0.6706	1.98	0.6406	3.11
13	0.6536	0.49	0.6751	1.96	0.6656	1.74	0.6673	0.25	0.6495	1.23	0.6752	2.12
14	0.6594	0.39	0.6688	1.01	0.658	0.58	0.6732	1.14	0.6564	0.18	0.6798	2.82
15	0.661	0.64	0.6785	2.47	0.6301	3.69	0.6695	0.58	0.6506	1.07	0.6757	2.20
16	0.6411	2.39	0.6767	2.20	0.6695	2.33	0.6581	1.13	0.658	0.06	0.6662	0.76
17	0.6568	0.00	0.6362	3.92	0.6582	0.61	0.6632	0.36	0.6569	0.11	0.6428	2.78
18	0.6656	1.34	0.636	3.95	0.6585	0.65	0.668	0.36	0.6614	0.58	0.6719	1.63
19	0.6564	0.06	0.6718	1.46	0.6555	0.19	0.6476	2.71	0.6612	0.55	0.647	2.14
20	0.657	0.03	0.6673	0.78	0.6594	0.79	0.6662	0.09	0.6717	2.14	0.6358	3.83
$\overline{X}$	0.6568	1.17	0.6621	1.57	0.6542	1.12	0.6656	0.96	0.6576	0.92	0.6611	1.94
SD		1.13		1.12		1.03		0.72		0.74		0.85

FORMULA B

No.	Replikasi 1				Replikasi 2				Replikasi 3			
	Bets 1		Bets 2		Bets 1		Bets 2		Bets 1		Bets 2	
	Bobot (mg)	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**
1	0.6643	0.85	0.6544	0.29	0.6684	1.34	0.6628	1.04	0.6683	1.05	0.6406	2.15
2	0.6376	3.20	0.6491	1.10	0.6708	1.70	0.6599	0.60	0.6675	0.93	0.6648	1.55
3	0.6672	1.29	0.6561	0.03	0.6571	0.38	0.6616	0.86	0.6647	0.51	0.6486	0.92
4	0.6503	1.27	0.6431	2.01	0.6573	0.35	0.6579	0.29	0.6661	0.72	0.647	1.17
5	0.661	0.35	0.6589	0.39	0.6556	0.60	0.6646	1.31	0.6688	1.13	0.6536	0.16
6	0.6595	0.12	0.6494	1.05	0.6652	0.85	0.643	1.98	0.6476	2.08	0.6587	0.62
7	0.6688	1.53	0.6466	1.48	0.6613	0.26	0.6407	2.33	0.6617	0.05	0.6417	1.98
8	0.6669	1.25	0.6774	3.21	0.6491	1.59	0.6656	1.47	0.6589	0.37	0.6626	1.22
9	0.6545	0.64	0.6713	2.28	0.6608	0.18	0.6418	2.16	0.6682	1.04	0.6593	0.71
10	0.6611	0.37	0.6519	0.67	0.652	1.15	0.6581	0.32	0.6655	0.63	0.6602	0.85
11	0.6677	1.37	0.6603	0.61	0.6572	0.36	0.662	0.92	0.6634	0.31	0.6614	1.03

12	0.66 29	0.64	0.65 34	0.44	0.65 85	0.16	0.64 95	0.99	0.64 85	1.94	0.65 08	0.59
13	0.66 33	0.70	0.66	0.56	0.65 48	0.73	0.65 8	0.31	0.65 54	0.90	0.65 58	0.18
14	0.64 15	2.61	0.66 47	1.28	0.66 03	0.11	0.64 78	1.25	0.65 07	1.61	0.65 21	0.39
15	0.65 89	0.03	0.65 76	0.20	0.66 41	0.68	0.66 13	0.81	0.64 82	1.99	0.64 72	1.14
16	0.66 83	1.46	0.64 94	1.05	0.66 85	1.35	0.65 91	0.48	0.66 79	0.99	0.65 93	0.71
17	0.66 74	1.32	0.65 67	0.06	0.65 38	0.88	0.64 37	1.87	0.66 62	0.73	0.66 1	0.97
18	0.66 89	1.55	0.64 73	1.37	0.65 56	0.60	0.66 6	1.53	0.66 56	0.64	0.66 84	2.10
19	0.64 18	2.56	0.65 79	0.24	0.65 36	0.91	0.66 11	0.78	0.66 64	0.77	0.64 7	1.17
20	0.64 19	2.55	0.66 07	0.67	0.66 77	1.23	0.65 5	0.15	0.65 72	0.63	0.65 28	0.28
$\overline{X}$	0.65 86	1.28	0.65 63	0.95	0.65 95	0.77	0.65 59	1.07	0.66 13	0.95	0.65 46	0.99
SD		0.88		0.82		0.49		0.65		0.56		0.59

FORMULA C

No.	Replikasi 1				Replikasi 2				Replikasi 3			
	Bets 1		Bets 2		Bets 1		Bets 2		Bets 1		Bets 2	
	Bobot (mg)	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**
1	0.6566	0.94	0.6637	0.02	0.6534	1.39	0.6577	1.13	0.6637	0.07	0.643	1.13
2	0.6582	0.70	0.6591	0.32	0.6735	1.65	0.6435	1.05	0.6503	1.95	0.6404	1.53
3	0.6633	0.07	0.6548	0.33	0.6624	0.03	0.6447	0.87	0.6453	2.71	0.6666	2.50
4	0.6759	1.97	0.6461	1.66	0.6566	0.91	0.6596	1.42	0.6616	0.25	0.6413	1.39
5	0.6688	0.90	0.6619	0.75	0.6634	0.12	0.6469	0.53	0.6586	0.70	0.6406	1.50
6	0.6595	0.50	0.6436	2.04	0.6699	1.10	0.6492	0.18	0.6621	0.17	0.665	2.25
7	0.6682	0.81	0.667	1.52	0.667	0.66	0.6666	2.50	0.6637	0.07	0.6614	1.70
8	0.6509	1.80	0.6416	2.34	0.6672	0.69	0.6579	1.16	0.6539	1.41	0.6484	0.30
9	0.6654	0.39	0.6617	0.72	0.6601	0.38	0.6604	1.55	0.6642	0.14	0.645	0.82
10	0.6685	0.85	0.6558	0.18	0.6621	0.08	0.6425	1.21	0.6782	2.25	0.6661	2.42
11	0.6767	2.09	0.6567	0.04	0.6666	0.60	0.6403	1.55	0.6659	0.40	0.6408	1.47

12	0.65 83	0.68	0.66 58	1.34	0.65 8	0.69	0.64 52	0.79	0.67 65	2.00	0.64 72	0.49
13	0.64	3.45	0.66 91	1.84	0.67 08	1.24	0.64 64	0.61	0.67 18	1.29	0.64 46	0.89
14	0.67 05	1.16	0.65 92	0.34	0.65 19	1.61	0.65 61	0.88	0.67 39	1.60	0.64 37	1.02
15	0.66 62	0.51	0.66 2	0.76	0.67 29	1.55	0.65 34	0.47	0.66 28	0.07	0.65 73	1.07
16	0.66	0.43	0.66 25	0.84	0.66 35	0.14	0.64 69	0.53	0.67 5	1.77	0.65 97	1.44
17	0.66 84	0.84	0.66 31	0.93	0.66 11	0.23	0.64 51	0.81	0.65 17	1.74	0.64 48	0.86
18	0.65 82	0.70	0.65 4	0.46	0.65 63	0.95	0.64 69	0.53	0.66 38	0.08	0.65 36	0.50
19	0.66 58	0.45	0.64 38	2.01	0.65 75	0.77	0.65 5	0.71	0.64 43	2.86	0.65 52	0.74
20	0.65 74	0.82	0.64 83	1.32	0.65 78	0.72	0.64 27	1.18	0.67 78	2.19	0.64 26	1.19
$\overline{X}$	0.66 28	0.82	0.65 69	0.99	0.66 26	0.72	0.65 03	1.18	0.66 32	2.19	0.65 03	1.19
SD		0.78		0.72		0.52		0.52		0.98		0.62

FORMULA D

No.	Replikasi 1				Replikasi 2				Replikasi 3			
	Bets 1		Bets 2		Bets 1		Bets 2		Bets 1		Bets 2	
	Bobot (mg)	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**	**Bobot (mg)**	**Penyimpangan (%)**
1	0.6624	0.97	0.6602	0.32	0.648	0.88	0.6631	1.01	0.6572	0.25	0.6625	0.52
2	0.6577	0.26	0.6631	0.76	0.6667	1.98	0.649	1.14	0.6649	1.43	0.6692	1.54
3	0.6668	1.64	0.6592	0.17	0.6452	1.31	0.6583	0.28	0.645	1.61	0.6691	1.52
4	0.6476	1.28	0.6698	1.78	0.6507	0.47	0.6459	1.61	0.6526	0.45	0.664	0.75
5	0.664	1.22	0.656	0.32	0.6558	0.31	0.6656	1.39	0.6642	1.32	0.6501	1.36
6	0.6547	0.20	0.6646	0.99	0.6606	1.04	0.6522	0.65	0.6462	1.43	0.6606	0.23
7	0.6444	1.77	0.6573	0.12	0.6509	0.44	0.6566	0.02	0.6424	2.01	0.6599	0.13
8	0.661	0.76	0.6657	1.15	0.6628	1.38	0.6605	0.61	0.6478	1.18	0.6538	0.80
9	0.6618	0.88	0.6545	0.55	0.6554	0.25	0.6544	0.32	0.6655	1.52	0.6649	0.88
10	0.6599	0.59	0.6625	0.67	0.6434	1.59	0.6605	0.61	0.6645	1.37	0.6636	0.69
11	0.6403	2.40	0.6524	0.87	0.6563	0.39	0.664	1.15	0.6488	1.03	0.6619	0.43

12	0.65	0.81	0.65	0.21	0.64	0.85	0.65	0.59	0.64	1.00	0.65	0.66
	07		67		82		26		9		47	
13	0.65	0.35	0.64	1.58	0.65	0.52	0.64	1.26	0.65	0.68	0.66	1.01
	37		77		04		82		11		57	
14	0.66	0.91	0.65	1.06	0.66	1.01	0.64	1.24	0.65	0.45	0.65	0.44
	2		11		04		83		85		62	
15	0.64	1.92	0.65	0.35	0.64	1.71	0.65	0.07	0.65	0.16	0.66	0.23
	34		58		26		69		45		06	
16	0.65	0.23	0.66	0.81	0.64	1.74	0.65	0.01	0.66	0.98	0.66	0.49
	45		34		24		64		2		23	
17	0.66	0.94	0.65	1.02	0.64	1.07	0.66	1.76	0.65	0.13	0.64	1.56
	22		14		68		8		64		88	
18	0.65	0.10	0.66	0.29	0.66	0.95	0.65	0.89	0.66	2.17	0.64	2.13
	67						06		98		5	
19	0.66	1.17	0.64	1.31	0.66	2.15	0.66	0.93	0.66	1.49	0.65	0.80
	37		95		78		26		53		38	
20	0.65	0.49	0.66	0.46	0.66	1.12	0.65	0.12	0.64	1.56	0.65	0.66
	28		11		11		57		53		47	
$\overline{X}$	0.65	0.49	0.65	0.46	0.65	1.12	0.65	0.12	0.65	1.56	0.65	0.66
	60		81		37		64		55		90	
SD		0.63		0.48		0.57		0.54		0.59		0.53

B. **HASIL UJI KESERAGAMAN UKURAN**

FORMULA A

NO	Bets 1						Bets 2					
	Replikasi 1		Replikasi 2		Replikasi 3		Replikasi 1		Replikasi 2		Replikasi 3	
	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter
1	0.34	1.27	0.36	1.29	0.355	1.27	0.355	1.31	0.365	1.31	0.365	1.31
2	0.335	1.28	0.35	1.295	0.36	1.28	0.36	1.31	0.365	1.31	0.37	1.305
3	0.34	1.28	0.345	1.275	0.33	1.28	0.365	1.315	0.36	1.305	0.365	1.305
4	0.34	1.275	0.34	1.28	0.365	1.285	0.355	1.31	0.36	1.305	0.34	1.31
5	0.34	1.27	0.36	1.29	0.375	1.285	0.36	1.31	0.365	1.305	0.35	1.31
6	0.35	1.275	0.345	1.28	0.355	1.275	0.37	1.31	0.36	1.305	0.37	1.305
7	0.355	1.27	0.355	1.29	0.355	1.27	0.36	1.305	0.37	1.31	0.355	1.305
8	0.4	1.275	0.33	1.28	0.345	1.29	0.36	1.31	0.365	1.305	0.37	1.305
9	0.34	1.28	0.34	1.27	0.36	1.29	0.345	1.305	0.36	1.305	0.365	1.31
10	0.33	1.28	0.36	1.27	0.335	1.28	0.365	1.305	0.364	1.31	0.365	1.305
11	0.34	1.275	0.36	1.28	0.34	1.28	0.35	1.31	0.37	1.305	0.36	1.31
12	0.335	1.27	0.35	1.27	0.34	1.275	0.37	1.305	0.355	1.31	0.36	1.31
13	0.345	1.29	0.35	1.28	0.37	1.27	0.36	1.305	0.375	1.305	0.365	1.305
14	0.345	1.28	0.37	1.29	0.35	1.27	0.355	1.305	0.365	1.305	0.36	1.31

15	0.36	1.29	0.37	1.275	0.365	1.28	0.365	1.305	0.365	1.31	0.37	1.31
16	0.335	1.27	0.35	1.28	0.36	1.285	0.36	1.305	0.37	1.31	0.375	1.31
17	0.33	1.29	0.355	1.28	0.35	1.275	0.365	1.31	0.36	1.31	0.365	1.305
18	0.34	1.29	0.37	1.28	0.355	1.27	0.365	1.31	0.365	1.31	0.37	1.305
19	0.345	1.29	0.365	1.28	0.35	1.27	0.36	1.305	0.345	1.31	0.36	1.31
20	0.345	1.29	0.34	1.28	0.375	1.275	0.345	1.305	0.37	1.305	0.36	1.305
$\overline{X}$	0.344	1.2795	0.3532	1.28075	0.3545	1.27775	0.3595	1.30775	0.3637	1.3075	0.363	1.3075
SD	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00

FORMULA B

NO	Bets 1						Bets 2					
	Replikasi 1		Replikasi 2		Replikasi 3		Replikasi 1		Replikasi 2		Replikasi 3	
	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter
1	0.395	1.305	0.395	1.305	0.38	1.31	0.35	1.305	0.355	1.32	0.39	1.305
2	0.395	1.31	0.395	1.31	0.39	1.31	0.36	1.31	0.35	1.31	0.35	1.31
3	0.39	1.305	0.395	1.305	0.39	1.305	0.365	1.305	0.36	1.31	0.355	1.315
4	0.39	1.305	0.39	1.305	0.385	1.305	0.35	1.305	0.355	1.315	0.35	1.305
5	0.395	1.305	0.39	1.305	0.39	1.305	0.355	1.315	0.35	1.305	0.36	1.31
6	0.395	1.305	0.39	1.305	0.395	1.31	0.35	1.31	0.35	1.31	0.35	1.31
7	0.39	1.31	0.395	1.31	0.38	1.305	0.36	1.31	0.36	1.305	0.365	1.31
8	0.39	1.305	0.38	1.31	0.395	1.31	0.36	1.31	0.35	1.305	0.355	1.315
9	0.385	1.305	0.39	1.31	0.395	1.315	0.36	1.31	0.355	1.31	0.35	1.31
10	0.39	1.31	0.395	1.31	0.385	1.305	0.35	1.305	0.365	1.315	0.365	1.31
11	0.38	1.31	0.38	1.31	0.38	1.315	0.35	1.305	0.36	1.32	0.36	1.31
12	0.38	1.31	0.395	1.305	0.395	1.305	0.355	1.305	0.35	1.315	0.35	1.305
13	0.39	1.305	0.395	1.305	0.395	1.305	0.35	1.315	0.365	1.305	0.355	1.31
14	0.39	1.305	0.395	1.305	0.39	1.31	0.355	1.31	0.35	1.305	0.355	1.305

15	0.395	1.31	0.39	1.305	0.38	1.305	0.36	1.31	0.355	1.31	0.35	1.315
16	0.395	1.305	0.39	1.31	0.39	1.305	0.355	1.305	0.365	1.315	0.35	1.31
17	0.385	1.305	0.39	1.31	0.385	1.305	0.35	1.315	0.36	1.315	0.355	1.31
18	0.39	1.31	0.39	1.31	0.39	1.315	0.35	1.305	0.35	1.315	0.35	1.32
19	0.395	1.31	0.395	1.31	0.39	1.31	0.355	1.31	0.35	1.31	0.35	1.305
20	0.38	1.31	0.39	1.31	0.39	1.31	0.36	1.31	0.355	1.31	0.35	1.31
$\overline{X}$	0.38975	1.30725	0.3912	1.30775	0.3885	1.30825	0.355	1.30875	0.3555	1.31125	0.35575	1.31
SD	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00

FORMULA C

NO	Bets 1						Bets 2					
	Replikasi 1		Replikasi 2		Replikasi 3		Replikasi 1		Replikasi 2		Replikasi 3	
	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter
1	0.36	1.305	0.36	1.315	0.39	1.305	0.36	1.3	0.365	1.3	0.365	1.3
2	0.36	1.305	0.35	1.31	0.365	1.31	0.38	1.3	0.365	1.3	0.365	1.305
3	0.365	1.31	0.36	1.31	0.355	1.305	0.36	1.3	0.37	1.3	0.37	1.3
4	0.35	1.305	0.355	1.305	0.365	1.305	0.36	1.3	0.365	1.3	0.37	1.3
5	0.35	1.315	0.355	1.305	0.36	1.31	0.365	1.3	0.365	1.3	0.365	1.3
6	0.35	1.31	0.36	1.31	0.35	1.31	0.365	1.3	0.365	1.305	0.365	1.3
7	0.36	1.31	0.36	1.305	0.365	1.31	0.365	1.3	0.37	1.305	0.365	1.305
8	0.36	1.305	0.35	1.305	0.355	1.315	0.365	1.305	0.37	1.3	0.365	1.305
9	0.36	1.305	0.355	1.31	0.36	1.305	0.365	1.305	0.36	1.3	0.36	1.305
10	0.35	1.305	0.365	1.305	0.365	1.31	0.36	1.3	0.36	1.3	0.365	1.3
11	0.355	1.305	0.36	1.32	0.36	1.31	0.36	1.305	0.36	1.3	0.365	1.3
12	0.355	1.305	0.36	1.315	0.35	1.305	0.37	1.305	0.36	1.3	0.365	1.3
13	0.355	1.315	0.365	1.305	0.355	1.305	0.37	1.31	0.365	1.3	0.36	1.3
14	0.355	1.31	0.35	1.305	0.355	1.305	0.38	1.3	0.365	1.305	0.36	1.3
15	0.36	1.31	0.355	1.31	0.36	1.315	0.36	1.3	0.365	1.305	0.36	1.3

16	0.355	1.305	0.365	1.31	0.35	1.31	0.36	1.3	0.36	1.305	0.36	1.3
17	0.35	1.315	0.36	1.31	0.365	1.31	0.365	1.305	0.36	1.305	0.37	1.3
18	0.365	1.305	0.36	1.31	0.36	1.315	0.365	1.305	0.37	1.3	0.365	1.305
19	0.355	1.31	0.36	1.31	0.355	1.305	0.37	1.305	0.36	1.3	0.365	1.3
20	0.365	1.305	0.355	1.31	0.36	1.31	0.365	1.305	0.36	1.3	0.38	1.3
$\overline{X}$	0.3567	1.308	0.358	1.30925	0.36	1.30875	0.365	1.3025	0.364	1.3015	0.3652	1.30125
SD	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00

FORMULA D

NO	Bets 1						Bets 2					
	Replikasi 1		Replikasi 2		Replikasi 3		Replikasi 1		Replikasi 2		Replikasi 3	
	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter
1	0.35	1.31	0.37	1.305	0.365	1.31	0.36	1.305	0.365	1.305	0.365	1.305
2	0.355	1.31	0.375	1.31	0.365	1.305	0.36	1.31	0.365	1.305	0.365	1.305
3	0.38	1.305	0.38	1.31	0.36	1.31	0.36	1.305	0.365	1.305	0.36	1.305
4	0.35	1.305	0.365	1.31	0.36	1.31	0.36	1.3	0.365	1.305	0.37	1.3
5	0.37	1.31	0.355	1.31	0.36	1.31	0.37	1.3	0.37	1.31	0.37	1.31
6	0.355	1.305	0.355	1.31	0.37	1.305	0.36	1.3	0.365	1.305	0.365	1.305
7	0.38	1.31	0.355	1.305	0.36	1.305	0.365	1.305	0.36	1.305	0.365	1.3
8	0.38	1.31	0.36	1.305	0.355	1.315	0.365	1.305	0.36	1.305	0.36	1.305
9	0.365	1.31	0.365	1.305	0.36	1.31	0.365	1.305	0.365	1.305	0.37	1.305
10	0.365	1.305	0.36	1.31	0.38	1.31	0.36	1.305	0.365	1.305	0.36	1.305
11	0.36	1.315	0.36	1.31	0.365	1.31	0.36	1.31	0.355	1.305	0.36	1.305
12	0.365	1.315	0.38	1.315	0.365	1.31	0.37	1.305	0.37	1.305	0.36	1.305
13	0.36	1.315	0.365	1.315	0.37	1.31	0.37	1.305	0.365	1.31	0.6	1.31
14	0.36	1.31	0.38	1.305	0.37	1.305	0.38	1.31	0.365	1.31	0.365	1.31
15	0.38	1.31	0.36	1.305	0.36	1.305	0.375	1.31	0.36	1.31	0.36	1.31

16	0.38	1.31	0.36	1.315	0.36	1.31	0.365	1.305	0.36	1.305	0.365	1.31
17	0.355	1.31	0.365	1.31	0.365	1.315	0.36	1.31	0.365	1.305	0.365	1.31
18	0.36	1.31	0.36	1.31	0.375	1.31	0.36	1.31	0.36	1.305	0.36	1.31
19	0.355	1.305	0.36	1.31	0.36	1.305	0.365	1.31	0.36	1.305	0.36	1.31
20	0.38	1.305	0.38	1.31	0.36	1.305	0.37	1.305	0.36	1.305	0.36	1.31
$\overline{X}$	0.36525	1.30925	0.3655	1.30925	0.36425	1.30875	0.365	1.306	0.36325	1.306	0.37525	1.30675
SD	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.05	0.00

D. HASIL UJI KEKERASAN TABLET HISAP

FORMULA A

NO	Bets 1			Bets 2		
	Replikasi 1	Replikasi 2	Replikasi 3	Replikasi 1	Replikasi 2	Replikasi 3
1	7.4	8	7.3	7	7.5	7.2
2	8.5	8.3	7.4	7.9	8.1	8.2
3	8.8	7.7	7.2	7.3	8.7	7.4
4	8.6	7.8	7.2	8.1	7	8
5	8.7	7	7.3	8.5	7.8	7.8
6	8.6	7.4	7.2	7.9	8.6	8.8
7	8.7	7.5	7.1	8	7.4	7.3
8	7.2	7.1	7.1	8.6	8	8.5
9	8.4	8.2	7.3	8.6	8.3	8.2
10	7.6	7	7.44	7	8.2	7.4
$\overline{X}$	8.25	7.6	7.254	7.89	7.96	7.88
SD	0.604	0.48	0.11	0.61	0.54	0.55

F0RMULA B

NO	Bets 1			Bets 2		
	Replikasi 1	Replikasi 2	Replikasi 3	Replikasi 1	Replikasi 2	Replikasi 3
1	15.1	17.3	15.5	16.6	17.2	16.4
2	16.3	17.7	15	17	16.5	16.9
3	17.6	16.6	17.6	16.2	17.7	18.1
4	16.6	15.4	16.6	17.8	17.5	16.4
5	16.8	18.1	15.4	16.9	16.1	17.1
6	17.6	15.2	16.3	16.7	17.5	17
7	17.3	15.7	15.8	17.8	17.2	17.2
8	17.5	15.5	15.4	17.5	17.6	16.1
9	16.4	15.1	17.4	16	17.2	17.3
10	16.3	16.6	17.3	16.1	16.3	16.4
$\overline{X}$	16.75	16.32	16.23	16.86	17.08	16.89
SD	0.79	1.09	0.95	0.67	0.57	0.59

FORMULA C

NO	Bets 1			Bets 2		
	Replikasi 1	Replikasi 2	Replikasi 3	Replikasi 1	Replikasi 2	Replikasi 3
1	10.5	10.8	9.4	11	10.5	12.2
2	11.3	9.7	9.8	11.9	12.1	13.1
3	11.2	10.2	11.4	11.3	11.1	11.4
4	10.8	9.8	11.2	13.1	11	11
5	9.1	9.3	9.6	12.5	10.8	10.7
6	10.8	9.5	9.8	10.9	10.6	10.8
7	11.3	10.3	10.1	12	10.4	10.2
8	10.8	11.2	11.2	10.6	12	10.4
9	11.2	11.1	11.1	10.8	10.3	11.2
10	10.2	10.9	10.2	10.9	10.2	11.4
$\overline{X}$	10.72	10.28	10.38	11.5	10.9	11.24
SD	0.67	0.69	0.76	0.83	0.67	0.87

FORMULA D

NO	Bets 1			Bets 2		
	Replikasi 1	Replikasi 2	Replikasi 3	Replikasi 1	Replikasi 2	Replikasi 3
1	13.6	13.3	13.5	12.2	12.5	12.6
2	12.7	13.1	12.5	13.7	13.7	12.8
3	12.4	12.8	13	13.4	12.9	12.3
4	12.3	12.6	12.8	13.8	12.8	13.5
5	13.6	12.2	12.6	12.8	13.4	13.3
6	13.6	12.7	12.3	12.9	13.5	13.3
7	12.4	12.4	12.6	13.8	12.4	12.3
8	12.2	12.6	13.7	12.8	12.4	13.6
9	13.4	12.5	12.9	13.8	13.1	13.2
10	12.7	13.8	12.5	11.3	12.2	12.1
$\overline{X}$	12.89	12.8	12.84	13.05	12.89	12.9
SD	0.59	0.48	0.45	0.09	0.01	0.52

E. HASIL UJI KERAPUHAN TABLET

FORMULA A

Bets	REP	W_0	W	%KERAPUHAN	$\overline{X}$ ± SD
Bets 1	1	13.4042	13.3413	0.47	0.49 ± 0.04
	2	12.9346	12.8751	0.46	
	3	12.7529	12.6844	0.54	
Bets 2	1	13.9323	13.8668	0.47	0.46 ± 0.04
	2	13.784	13.7273	0.41	
	3	13.5215	13.4551	0.49	

FORMULA B

Bets	REP	W_0	W	%KERAPUHAN	$\overline{X}$ ± SD
Bets 1	1	13.0538	13.0103	0.33	0.39 ± 0.05
	2	12.8035	12.7474	0.44	
	3	13.4611	13.4094	0.38	
Bets 2	1	12.9562	12.9174	0.30	0.33 ± 0.03
	2	13.0507	13.0049	0.35	
	3	12.898	12.8552	0.33	

FORMULA C

Bets	REP	W_0	W	%KERAPUHAN	$\overline{X}$ ± SD
Bets 1	1	13.1535	13.1083	0.34	0.37 ± 0.07
	2	13.1766	13.1177	0.45	
	3	13.0011	12.959	0.32	
Bets 2	1	12.9439	12.9068	0.29	0.34 ± 0.05
	2	13.0014	12.9506	0.39	
	3	12.9773	12.9346	0.33	

FORMULA D

Bets	REP	W_0	W	%KERAPUHAN	$\overline{X}$ ± SD
Bets 1	1	12.976	12.9515	0.19	0.20 ± 0.06
	2	13.0017	12.9827	0.15	
	3	12.9585	12.925	0.26	
Bets 2	1	13.2667	13.243	0.18	0.16 ± 0.03
	2	13.2483	13.2316	0.13	
	3	13.1515	13.128	0.18	

F. HASIL UJI WAKTU HANCUR TABLET

FORMULA	Bets	Replikasi	waktu hancur (menit)	$\overline{X}$ ± SD
A	1	1	8	8.33 ± 0.58
		2	9	
		3	8	
	2	1	8	8.33 ± 0.58
		2	8	
		3	9	
B	1	1	8	9.33 ± 1.15
		2	10	
		3	10	
	2	1	9	9.67 ± 0.58
		2	10	
		3	10	
C	1	1	11	10.33 ± 0.58
		2	10	
		3	10	
	2	1	9	10 ± 1
		2	11	
		3	10	
D	1	1	12	11.67 ± 0.58
		2	12	
		3	11	
	2	1	11	11.33 ± 0.58
		2	11	
		3	12	

LAMPIRAN G

HASIL UJI STATISTIK ANTAR BETS FORMULA TABLET HISAP EKSTRAK RIMPANG KENCUR

A. KEKERASAN

Formula A

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula A - Formula A	.00000	.50912	.36000	-4.57423	4.57423	.000	1	1.000

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula B

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Formula B - formula B	-.43500	.45962	.32500	-4.56452	3.69452	-1.338	1	.408

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula C

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula C - Formula C	-.75333	.12220	.07055	-1.05690	-.44977	-10.677	2	.009

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula D

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula D - Formula D	-.12500	.04950	.03500	-.56972	.31972	-3.571	1	.174

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

B. KERAPUHAN

Formula A

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula A - Formula A	.03333	.02887	.01667	-.03838	.10504	2.000	2	.184

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula B

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula B - formula B	-5.46333	9.56674	5.52336	-29.22844	18.30177	-.989	2	.427

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula C

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula C - Formula C	-3.60333	6.33642	3.65833	-19.34388	12.13721	-.985	2	.428

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula D

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula D - Formula D	.03067	.02759	.01593	-.03788	.09921	1.925	2	.194

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

C. WAKTU HANCUR

Formula A

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula A - Formula A	.00000	1.00000	.57735	-2.48414	2.48414	.000	2	1.000

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula B

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula B - formula B	-.33333	.57735	.33333	-1.76755	1.10088	-1.000	2	.423

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula C

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula C - Formula C	.33333	1.52753	.88192	-3.46125	4.12792	.378	2	.742

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

Formula D

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Formula D - Formula D	.33333	1.15470	.66667	-2.53510	3.20177	.500	2	.667

Hipotesa pengujian :

T hitung < T tabel (0,05) sehingga tidak ada perbedaan yang bermakna antar bets.

LAMPIRAN H

HASIL UJI STATISTIK ANTAR FORMULA TABLET HISAP EKSTRAK RIMPANG KENCUR

A. KEKERASAN

Tukey HSD

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula A	2	7.8050			
Formula C	2		10.8350		
Formula D	2			12.9450	
Formula B	2				16.6700
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

ANOVA

Kekerasan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	83.282	3	27.761	235.684	.000
Within Groups	.471	4	.118		
Total	83.753	7			

Karena F hitung = 235,684 >F tabel $_{0,05(3,4)}$ = 6,59; maka H_0 ditolak dan ada perbedaan yang bermakna antar formula.

Multiple Comparisons

Kekerasan
Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula A	Formula B	-8.86500*	.34320	.000	-10.2621	-7.4679
	Formula C	-3.03000*	.34320	.003	-4.4271	-1.6329
	Formula D	-5.14000*	.34320	.000	-6.5371	-3.7429
Formula B	Formula A	8.86500*	.34320	.000	7.4679	10.2621
	Formula C	5.83500*	.34320	.000	4.4379	7.2321
	Formula D	3.72500*	.34320	.001	2.3279	5.1221
Formula C	Formula A	3.03000*	.34320	.003	1.6329	4.4271
	Formula B	-5.83500*	.34320	.000	-7.2321	-4.4379
	Formula D	-2.11000*	.34320	.012	-3.5071	-.7129
Formula D	Formula A	5.14000*	.34320	.000	3.7429	6.5371
	Formula B	-3.72500*	.34320	.001	-5.1221	-2.3279
	Formula C	2.11000*	.34320	.012	.7129	3.5071

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

Keterangan :

Symbol * : perbedaannya signifikan, karena selisih >HSD (5%)

B. KERAPUHAN

Tukey HSD

Formula	N	Subset for alpha = 0.05	
		1	2
Formula D	2	.1800	
Formula C	2		.3550
Formula B	2		.3600
Formula A	2		.4750
Sig.		1.000	.051

ANOVA

Kerapuhan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.089	3	.030	33.848	.003
Within Groups	.003	4	.001		
Total	.092	7			

Karena F hitung = 33,848 >F tabel $_{0,05(3,4)}$ = 6,59; maka H_0 ditolak dan ada perbedaan yang bermakna antar formula.

Multiple Comparisons

Kerapuhan
Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula A	Formula B	.11500	.02958	.058	-.0054	.2354
	Formula C	.12000	.02958	.051	-.0004	.2404
	Formula D	.29500*	.02958	.002	.1746	.4154
Formula B	Formula A	-.11500	.02958	.058	-.2354	.0054
	Formula C	.00500	.02958	.998	-.1154	.1254
	Formula D	.18000*	.02958	.013	.0596	.3004
Formula C	Formula A	-.12000	.02958	.051	-.2404	.0004
	Formula B	-.00500	.02958	.998	-.1254	.1154
	Formula D	.17500*	.02958	.014	.0546	.2954
Formula D	Formula A	-.29500*	.02958	.002	-.4154	-.1746
	Formula B	-.18000*	.02958	.013	-.3004	-.0596
	Formula C	-.17500*	.02958	.014	-.2954	-.0546

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

Keterangan :

Symbol * : perbedaannya signifikan, karena selisih >HSD (5%)

C.WAKTU HANCUR

Waktu hancur

Tukey HSD

Formula	N	Subset for alpha = 0.05		
		1	2	3
Formula A	2	8.3300		
Formula B	2		9.5000	
Formula C	2		10.1650	
Formula D	2			11.5000
Sig.		1.000	.102	1.000

Means for groups in homogeneous subsets are displayed.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.505	3	3.502	82.366	.000
Within Groups	.170	4	.043		
Total	10.675	7			

Karena F hitung = 82,366 >F tabel $_{0,05(3,4)}$ = 6,59; maka H_0 ditolak dan ada perbedaan yang bermakna antar formula.

Multiple Comparisons

Waktu hancur

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula A	Formula B	-1.17000*	.20619	.016	-2.0094	-.3306
	Formula C	-1.83500*	.20619	.003	-2.6744	-.9956
	Formula D	-3.17000*	.20619	.000	-4.0094	-2.3306
Formula B	Formula A	1.17000*	.20619	.016	.3306	2.0094
	Formula C	-.66500	.20619	.102	-1.5044	.1744
	Formula D	-2.00000*	.20619	.002	-2.8394	-1.1606
Formula C	Formula A	1.83500*	.20619	.003	.9956	2.6744
	Formula B	.66500	.20619	.102	-.1744	1.5044
	Formula D	-1.33500*	.20619	.010	-2.1744	-.4956
Formula D	Formula A	3.17000*	.20619	.000	2.3306	4.0094
	Formula B	2.00000*	.20619	.002	1.1606	2.8394
	Formula C	1.33500*	.20619	.010	.4956	2.1744

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

Keterangan : Symbol * : perbedaannya signifikan, karena selisih >HSD (5%)

LAMPIRAN I

HASIL ANOVA UJI KEKERASAN PADA PROGRAM DESIGN EXPERT

Response 1 KEKERASAN

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value	
Model	83.56	3	27.85	244.65	< 0.0001	significant
A-PVP K-30	*60.39*	*1*	*60.39*	*530.44*	*< 0.0001*	
B-GELATIN	*0.25*	*1*	*0.25*	*2.21*	*0.2110*	
AB	*22.92*	*1*	*22.92*	*201.29*	*0.0001*	
Pure Error	0.46	4	0.11			
Cor Total	84.01	7				

The Model F-value of 244.65 implies the model is significant. There is only a 0.01% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant.
In this case A, AB are significant model terms.
Values greater than 0.1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model.

Std. Dev.	0.34	R-Squared	0.9946
Mean	12.07	Adj R-Squared	0.9905
C.V. %	2.80	Pred R-Squared	0.9783
PRESS	1.82	Adeq Precision	37.219

The "Pred R-Squared" of 0.9783 is in reasonable agreement with the "Adj R-Squared" of 0.9905.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your
ratio of 37.219 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	12.07	1	0.12	11.74	12.40	
A-PVP K-30	2.75	1	0.12	2.42	3.08	1.00
B-GELATIN	-0.18	1	0.12	-0.51	0.15	1.00
AB	-1.69	1	0.12	-2.02	-1.36	1.00

Final Equation in Terms of Coded Factors:

KEKERASAN =
+12.07
+2.75 * A
-0.18 * B
-1.69 * A * B

Final Equation in Terms of Actual Factors:

KEKERASAN =
+12.06750
+2.74750 * PVP K-30
-0.17750 * GELATIN
-1.69250 * PVP K-30 * GELATIN

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.
In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:
1) Normal probability plot of the studentized residuals to check for normality of residuals.
2) Studentized residuals versus predicted values to check for constant error.
3) Externally Studentized Residuals to look for outliers, i.e., influential values.
4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN J
HASIL ANOVA UJI KERAPUHAN PADA PROGRAM DESIGN EXPERT

Use your mouse to right click on individual cells for definitions.

Response 2 Kerapuhan

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	Prob > F
Model	0.089	3	0.030	33.85	0.0027 significant
A-PVP K-30	*0.042*	*1*	*0.042*	*48.06*	*0.0023*
B-Gelatin	*0.045*	*1*	*0.045*	*51.43*	*0.0020*
AB	*1.800E-003*	*1*	*1.800E-003*	*2.06*	*0.2248*
Pure Error	3.500E-003	4	8.750E-004		
Cor Total	0.092	7			

The Model F-value of 33.85 implies the model is significant. There is only a 0.27% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant.
In this case A, B are significant model terms.
Values greater than 0.1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model.

Std. Dev.	0.030	R-Squared	0.9621
Mean	0.34	Adj R-Squared	0.9337
C.V. %	8.64	Pred R-Squared	0.8484
PRESS	0.014	Adeq Precision	14.104

The "Pred R-Squared" of 0.8484 is in reasonable agreement with the "Adj R-Squared" of 0.9337.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 14.104 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	0.34	1	0.010	0.31	0.37	
A-PVP K-30	-0.073	1	0.010	-0.10	-0.043	1.00
B-Gelatin	-0.075	1	0.010	-0.10	-0.046	1.00
AB	-0.015	1	0.010	-0.044	0.014	1.00

Final Equation in Terms of Coded Factors:

Kerapuhan =
+0.34
-0.073 * A
-0.075 * B
-0.015 * A * B

Final Equation in Terms of Actual Factors:

Kerapuhan =
+0.34250
-0.072500 * PVP K-30
-0.075000 * Gelatin
-0.015000 * PVP K-30 * Gelatin

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.
In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:
1) Normal probability plot of the studentized residuals to check for normality of residuals.
2) Studentized residuals versus predicted values to check for constant error.
3) Externally Studentized Residuals to look for outliers, i.e., influential values.
4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN K
HASIL ANOVA UJI WAKTU HANCUR PADA PROGRAM DESIGN EXPERT

Use your mouse to right click on individual cells for definitions.

Response 3 Waktu hancur

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F
Model	10.50	3	3.508	2.37	0.0005 significant
A-PVP K-30	*3.14*	*1*	*3.147*	*3.80*	*0.0010*
B-Gelatin	*7.35*	*1*	*7.35 17*	*2.98*	*0.0002*
AB	*0.014*	*1*	*0.014*	*0.32*	*0.6017*
Pure Error	0.17	4	0.043		
Cor Total	10.67	7			

The Model F-value of 82.37 implies the model is significant. There is only a 0.05% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant.
In this case A, B are significant model terms.
Values greater than 0.1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model.

Std. Dev.	0.21	R-Squared	0.9841
Mean	9.87	Adj R-Squared	0.9721
C.V. %	2.09	Pred R-Squared	0.9363
PRESS	0.68	Adeq Precision	21.743

The "Pred R-Squared" of 0.9363 is in reasonable agreement with the "Adj R-Squared" of 0.9721.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 21.743 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	9.87	1	0.073	9.67	10.08	
A-PVP K-30	0.63	1	0.073	0.42	0.83	1.00
B-Gelatin	0.96	1	0.073	0.76	1.16	1.00
AB	0.041	1	0.073	-0.16	0.24	1.00

Final Equation in Terms of Coded Factors:

Waktu hancur =
+9.87
+0.63 * A
+0.96 * B
+0.041 * A * B

Final Equation in Terms of Actual Factors:

Waktu hancur =
+9.87375
+0.62625 * PVP K-30
+0.95875 * Gelatin
+0.041250 * PVP K-30 * Gelatin

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.
In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:
1) Normal probability plot of the studentized residuals to check for normality of residuals.
2) Studentized residuals versus predicted values to check for constant error.
3) Externally Studentized Residuals to look for outliers, i.e., influential values.
4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN L

TABEL UJI F

Nilai kritis distribusi *F*

$\alpha = 0{,}05$

df_2 \ df_1	1	2	3	4	5	6	7	8	10	12	24	∞
1	161,4	199,5	215,7	224,6	230,2	234,0	236,8	238,9	241,9	243,9	249,0	254,3
2	18,5	19,0	19,2	19,2	19,3	19,3	19,4	19,4	19,4	19,4	19,5	19,5
3	10,13	9,55	9,28	9,12	9,01	8,94	8,89	8,85	8,79	8,74	8,64	8,53
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	5,96	5,91	5,77	5,63
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,74	4,68	4,53	4,36
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,06	4,00	3,84	3,67
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,64	3,57	3,41	3,23
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,35	3,28	3,12	2,93
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,14	3,07	2,90	2,71
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	2,98	2,91	2,74	2,54
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,85	2,79	2,61	2,40
12	4,75	3,89	3,49	3,26	3,11	3,00	2,91	2,85	2,75	2,69	2,51	2,30
13	4,67	3,81	3,41	3,18	3,03	2,92	2,83	2,77	2,67	2,60	2,42	2,21
14	4,60	3,74	3,34	3,11	2,96	2,85	2,76	2,70	2,60	2,53	2,35	2,13
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,49	2,42	2,24	2,01
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,41	2,34	2,15	1,92
20	4,35	3,49	3,10	2,87	2,71	2,60	2,51	2,45	2,35	2,28	2,08	1,84
22	4,30	3,44	3,05	2,82	2,66	2,55	2,46	2,40	2,30	2,23	2,03	1,78
24	4,26	3,40	3,01	2,78	2,62	2,51	2,42	2,36	2,25	2,18	1,98	1,73
26	4,23	3,37	2,98	2,74	2,59	2,47	2,39	2,32	2,22	2,15	1,95	1,69
28	4,20	3,34	2,95	2,71	2,56	2,45	2,36	2,29	2,19	2,12	1,91	1,65
30	4,17	3,32	2,92	2,69	2,53	2,42	2,33	2,27	2,16	2,09	1,89	1,62
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,08	2,00	1,79	1,51
60	4,00	3,15	2,76	2,53	2,37	2,25	2,17	2,10	1,99	1,92	1,70	1,39
120	3,92	3,07	2,68	2,45	2,29	2,18	2,09	2,02	1,91	1,83	1,61	1,25
∞	3,84	3,00	2,60	2,37	2,21	2,10	2,01	1,94	1,83	1,75	1,52	1,00

LAMPIRAN M

TABEL UJI T

Nilai kritis distribusi *t*

	Uji berarah dua			Uji berarah satu		
df	α = 0,10	α = 0,05	α = 0,01	α = 0,10	α = 0,05	α = 0,01
1	6,314	12,706	63,657	3,078	6,314	31,821
2	2,920	4,303	9,925	1,886	2,920	6,965
3	2,353	3,182	5,841	1,638	2,353	4,541
4	2,132	2,776	4,604	1,533	2,132	3,747
5	2,015	2,571	4,032	1,476	2,015	3,365
6	1,943	2,447	3,707	1,440	1,943	3,143
7	1,895	2,365	3,499	1,415	1,895	2,998
8	1,860	2,306	3,355	1,397	1,860	2,896
9	1,833	2,262	3,250	1,383	1,833	2,821
10	1,812	2,228	3,169	1,372	1,812	2,764
11	1,796	2,201	3,106	1,363	1,796	2,718
12	1,782	2,179	3,055	1,356	1,782	2,681
13	1,771	2,160	3,012	1,350	1,771	2,650
14	1,761	2,145	2,977	1,345	1,761	2,624
15	1,753	2,131	2,947	1,341	1,753	2,602
16	1,746	2,120	2,921	1,337	1,746	2,583
17	1,740	2,110	2,898	1,333	1,740	2,567
18	1,734	2,101	2,878	1,330	1,734	2,552
19	1,729	2,093	2,861	1,328	1,729	2,539
20	1,725	2,086	2,845	1,325	1,725	2,528
21	1,721	2,080	2,831	1,323	1,721	2,518
22	1,717	2,074	2,819	1,321	1,717	2,508
23	1,714	2,069	2,807	1,319	1,714	2,500
24	1,711	2,064	2,797	1,318	1,711	2,492
25	1,708	2,060	2,787	1,316	1,708	2,485
26	1,706	2,056	2,779	1,315	1,706	2,479
27	1,703	2,052	2,771	1,314	1,703	2,473
28	1,701	2,048	2,763	1,313	1,701	2,467
29	1,699	2,045	2,756	1,311	1,699	2,462
30	1,697	2,042	2,750	1,310	1,697	2,457
40	1,684	2,021	2,704	1,303	1,684	2,423
60	1,671	2,000	2,660	1,296	1,671	2,390
120	1,658	1,980	2,617	1,289	1,658	2,358
∞	1,645	1,960	2,576	1,282	1,645	2,326

LAMPIRAN N

SURAT DETERMINASI SIMPLISIA RIMPANG KENCUR

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

Nomor : 074 / 57 / 101.8 / 2012
Sifat : Biasa
Perihal : **Determinasi Tanaman Kencur**

Memenuhi permohonan saudara :
Nama : NEVA RISTIANTI
N I M : 2443008024
Fakultas : Fakultas Farmasi
Universitas Widya Mandala Surabaya

1. Perihal determinasi tanaman kencur

Kingdom	: Plantae (Tumbuhan)
Subkingdom	: Tracheobionta (Tumbuhan berpembuluh)
Super Divisi	: Spermatophyta (Menghasilkan biji)
Divisi	: Magnoliophyta (Tumbuhan berbunga)
Kelas	: Liliopsida (berkeping satu / monokotil)
Sub Kelas	: Commelinidae
Ordo	: Zingiberales
Famili	: Zingiberaceae (suku jahe-jahean)
Genus	: Kaempferia
Spesies	: *Kaempferia galangaL.*
Sinonim	: Kencur (Indonesia, Jawa), Cikur (Sunda), Ceuko (Aceh); Kencor (Madura), Cekuh (Bali), Kencur, Sukung (Minahasa); Asauli, sauleh, soul, umpa (Ambon), Cekir (Sumba)
Sinonim	: - Kencur (Indonesia, Jawa), Cikur (Sunda), Ceuko (Aceh); Kencor (Madura), Cekuh (Bali), Kencur, Sukung (Minahasa); Asauli, sauleh, soul, umpa (Ambon), Cekir (Sumba)
Kunci determinasi	: 1b-2b -3b - 4b - 6b - 7b -9b -10b - 11b- 12b -13b -14a- 15a-109a-110b-111b-112a -113b-116a -119b -120b-128b-129a-130b-132a

1. Nama Simplisia : Kaempferiae Rhizoma / Rimpang Kencur.
2. Kandungan kimia : Rimpang Kencur mengandung pati (4,14 %), mineral (13,73 %), dan minyak atsiri (0,02 %) berupa sineol, asam metil kanil dan penta dekaan, asam cinnamic, ethyl aster, asam sinamic, borneol, kamphene, paraeumarin, asam anisic, dan alkaloid.
3. Penggunaan : Penelitian
4. Daftar Pustaka :
   - Anonim, http/www.tanaman obat .com / Kencur , Diakses tanggal 9 Januari 2009
   - Tjitrosoepomo,Gembong, 2005, Taksonomi Tumbuhan Obat-Obatan , Gajah mada university Press, Yogyakarta
   - Steenis, CGGJ Van Dr , ***FLORA***, 2008, Pradnya Paramita , Jakarta.
   - Syamsuhidayat, Sri sugati, Hutapea, Johny 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 , 27 Pebruari 2012
Kepala UPT Materia Medica Batu

Drs. Husin RM, Apt, MKes.
NIP. 19611102 199103 1 003

LAMPIRAN O

SERTIFIKAT SINEOL

nacalai tesque
The quality for certainty.

CERTIFICATE OF ANALYSIS

September 11 2008

Product name : Cineol

Product number : 09942-32

Grade : GP

Lot number : M4E3822

Package size : 25g

NACALAI TESQUE, INC.
Manufacturing Department
17 Ishibashi, Kaide-cho,
Muko, Kyoto 617-0004
TEL: +81-(0) 75-251-1730
FAX: +81-(0) 75-251-1763

Test item	Specification	Results
Assay %	min. 90.0	99.7
Solubility in ethanol	Clear	Passed test

M. Yamaga
Inspecting Section Manager

LAMPIRAN P

RANGKUMAN HASIL PREDIKSI BERDASARKAN PROGRAM OPTIMASI *DESIGN-EXPERT*

No	PVP K-30	Gelatin	Kekerasaan (Kgf)	Kerapuhan (%)	Waktu hancur (Menit)
1	0,80	0,80	13,0403	0,2149	11,1682
2	0,72	0,63	13,1816	0,236266	10,9457
3	-1,00	1,00	10,835	0,355	10,165
4	-0,72	0,63	10,7315	0,354984	10,0002
5	0,62	0,78	12,8155	0,231487	11,0327
6	0,39	0,14	13,028	0,303196	10,2507
7	0,44	0,26	13,0264	0,289382	10,4042
8	0,53	0,53	12,9442	0,260432	10,7231
9	0,74	0,52	13,3589	0,243793	10,8543
10	-0,32	0,77	11,4625	0,312083	10,3973
11	0,94	0,51	13,7452	0,22884	10,9721
12	-0,07	0,85	11,8197	0,28535	10,6361
13	-0,05	0,83	11,8469	0,284674	10,6361
14	-0,29	0,86	11,5365	0,30324	10,5008
15	-0,15	0,34	11,684	0,328847	10,1005
16	0,67	0,55	13,1894	0,247029	10,8368
17	-0,32	0,97	11,5419	0,297433	10,5932
18	-0,53	0,84	11,2254	0,323885	10,3363
19	-0,11	0,73	11,7688	0,297321	10,4971
20	0,24	0,69	12,3169	0,271328	10,6885
21	0,20	0,67	12,268	0,276139	10,643
22	0,56	0,26	13,3104	0,280431	10,4777

23	0,96	0,57	13,6834	0,221661	11,0463
24	-0,81	0,91	10,9341	0,343666	10,2126
25	0,34	0,44	12,6734	0,282173	10,5191
26	0,73	0,54	13,3124	0,243215	10,8642
27	0,05	0,62	12,0395	0,292025	10,4999
28	-0,48	0,84	11,2771	0,320659	10,3595
29	-0,98	0,81	10,5737	0,364764	10,0034
30	0,22	0,18	12,572	0,312683	10,1832
31	-0,08	0,65	11,8188	0,300307	10,4454
32	0,69	0,05	13,9009	0,288498	10,3518
33	0,40	0,28	12,9303	0,290572	10,3998
34	0,37	0,28	12,8551	0,292717	10,3831

LAMPIRAN Q
CONTOH PERHITUNGAN

Contoh Perhitungan standarisasi kadar sari larut air simplisia:

Simplisia rimpang kencur replikasi 1:

Berat simplisia/5 = 5,0021/5

= 1,0004 g

$$\% \text{ kadar} = \frac{\text{berat pemanasan terakhir-berat cawan kosong}}{\text{berat simplisia/5}} \text{ x } 100\%$$

$$\% \text{ kadar} = \frac{(53{,}9519 - 53{,}9507)}{1{,}0004} \text{ X } 100\%$$

= 13,45%

Contoh perhitungan standarisasi kadar sari larut etanol simplisia:

Simplisia rimpang kencur replikasi 1:

Berat simplisia/5 = 5,0018/5

= 1,00036 g

$$\% \text{ kadar} = \frac{\text{berat pemanasan terakhir-berat cawan kosong}}{\text{berat simplisia/5}} \text{ x } 100\%$$

$$\% \text{ kadar} = \frac{(35{,}6897 - 35{,}6869)}{1{,}00036} \text{ x } 100\%$$

= 7,65%

Contoh Perhitungan standarisasi kadar air simplisia:

Simplisia rimpang kencur replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat simplisia-berat simplisia konstan}}{\text{berat simplisia}} \text{ x } 100\%$$

$$\% \text{ kadar} = \frac{(10{,}0014\text{-}44{,}9453)}{10{,}0014} \text{ x } 100\%$$

$$= 8{,}26\%$$

Contoh Perhitungan standarisasi kadar abu total simplisia:

Simplisia rimpang kencur replikasi 1:

$$\%\ \text{kadar} = \frac{\text{berat abu konstan-berat krus}}{\text{berat simplisia}} \times 100\%$$

$$\%\ \text{kadar} = \frac{34{,}4143-34{,}1918}{10{,}0014} \times 100\%$$

$$= 8{,}26\%$$

Contoh Perhitungan standarisasi kadar abu tidak larut asam simplisia:

Simplisia rimpang kencur replikasi 1:

$$\%\ \text{kadar} = \frac{\text{berat abu setelah penambahan HCl- berat krus}}{\text{berat abu total- berat krus}} \times 100\%$$

$$\%\ \text{kadar} = \frac{24{,}2623-24{,}2586}{24{,}4781-24{,}2586} \times 100\%$$

$$= 1{,}7\%$$

Contoh Perhitungan standarisasi kadar abu larut air simplisia:

Simplisia rimpang kencur replikasi 1:

$$\%\ \text{kadar} = \frac{\text{berat abu setelah penambahan aquadest- berat krus}}{\text{berat abu total- berat krus}} \times 100\%$$

$$\%\ \text{kadar} = \frac{34{,}3259-34{,}1918}{34{,}4143-34{,}1918} \times 100\%$$

$$= 39{,}73\%$$

Contoh Perhitungan standarisasi kadar abu total ekstrak:

ekstrak rimpang kencur replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat abu konstan-berat krus}}{\text{berat ekstrak}} \text{ x } 100\%$$

$$\% \text{ kadar} = \frac{34,9875-34,4348}{3,0120} \text{ x } 100\%$$

$$= 18,35\%$$

Contoh Perhitungan standarisasi kadar abu tidak larut asam ekstrak:

ekstrak rimpang kencur replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat abu setelah penambahan HCl- berat krus}}{\text{berat abu total- berat krus}} \text{ x } 100\%$$

$$\% \text{ kadar} = \frac{34,8290-34,7089}{35,2713-34,7089} \text{ x } 100\%$$

$$= 21,35\%$$

Contoh Perhitungan standarisasi kadar abu larut air ekstrak:

ekstrak rimpang kencur replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat abu setelah penambahan aquadest- berat krus}}{\text{berat abu total- berat krus}} \text{ x } 100\%$$

$$\% \text{ kadar} = \frac{34,0233-33,8660}{34,4007-33,8660} \text{ x } 100\%$$

$$= 70,58\%$$

Contoh perhitungan sudut diam granul:

Formula A bets 1

W persegi panjang = 4,64 gram

W lingkaran = 0,75 gram

Luas persegi panjang = 623,7 cm^2

Luas lingkaran $= \frac{0,75}{4,64}$ x 623,7 = 100,8136 cm^2

$L = \pi.r^2$

$r^2 = \frac{L}{\pi}$

$= \frac{100,816}{3,14}$

r $= 5,67$ cm

tg α $= \frac{h}{r} = \frac{3,6}{5,67}$

α $= 32,43^{o}$

Contoh perhitungan indeks kompresibilitas:

Formula A bets 1:

Berat gelas $= 149,61$ g (W_1)

Berat gelas + granul = 214,85 g (W_2)

$V_1 = 100$ ml

$V_2 = 90$ ml

Bj nyata $= \frac{(W2 - W1)}{V1} = \frac{214,85\text{-}149,61}{100} = 0,6524$

Bj mampat $= \frac{(W2 - W1)}{V2} = \frac{214,85\text{-}149,61}{90} = 0,7249$

% kompresibilitas $= \left(1\text{-} \frac{\text{Bj nyata}}{\text{Bj mampat}} \right) \text{ x } 100\% = 10,00\%$

Contoh perhitungan kerapuhan tablet:

Formula A bets 1:

Berat tablet $= 13,4042$ g (W_0)

Berat tablet setelah uji = 13,3413 g (W)

% kerapuhan $= \frac{(W0 - W)}{W0} \text{ x } 100\%$

$= \frac{(13,4042 - 13,3413)}{13,4042} \text{ x } 100\%$

$= 0,47\%$