BAB 5
SIMPULAN DAN SARAN

5.1. Simpulan

Konsentrasi amilum manihot berpengaruh signifikan terhadap kekerasan tablet, konsentrasi natrium croskarmelosa berpengaruh signifikan terhadap kerapuhan dan waktu hancur tablet. Amilum manihot meningkatkan kekerasan, menurunkan kerapuhan dan mempercepat waktu hancur. Natrium croskarmelosa meningkatkan kekerasan, meningkatkan kerapuhan, dan mempercepat waktu hancur, sedangkan interaksi amilum manihot dan natrium croskarmelosa meningkatkan kekerasan, menurunkan kerapuhan dan memperlama waktu hancur. Formula optimum tablet pelangsing teh hijau (*Camellia sinensis*) dapat diperoleh dengan menggunakan amilum manihot 9,25% dan natrium croskarmelosa 4,44% dengan hasil respon kekerasan 6,45 kgf; kerapuhan 0,99%; waktu hancur 7,19 menit.

5.2. Saran

Pada penelitian selanjutnya disarankan melakukan verifikasi persamaan polinomialnya serta disarankan dilakukan uji pelepasan obat untuk melihat jumlah zat aktif yang terlepas per satuan waktu.

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LAMPIRAN A
STANDARISASI SPESIFIK DAN NON SPESIFIK EKSTRAK DAUN TEH HIJAU (*CAMELLIA SINENSIS)*

A. Standarisasi Non Spesifik Ekstrak Daun Teh Hijau (*Camelia sinensis*)

1. Penentuan Kadar Air

Replikasi	Berat cawan (g)	Berat ekstrak (g)	Berat ekstrak konstan (g)	% kadar (%)
I	42,2207	10,0732	9,6452	4,25
II	50,6004	10,0002	9,5738	4,26
III	41,4631	10,0024	9,5683	4,34
$\bar{x}$ ± SD				4,28 ±0,05

Contoh Perhitungan:

Replikasi I:

$$\%\ \text{kadar}\ (\%) = \frac{\text{berat ekstrak} - \text{berat ekstrak konstan}}{\text{berat ekstrak}} \times 100\%$$

$$\%\ \text{kadar}\ (\%) = \frac{10{,}0732 - 9{,}6452}{10{,}0732} \times 100\%$$

$$= 4{,}25\%$$

2. Penentuan Susut Pengeringan

Replikasi	Hasil pengamatan
I	5,60
II	5,50
III	5,80
$\bar{x}$ ± SD	5,63 ± 0,15

3. Penentuan Kadar Abu Total

Rep	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	% kadar (%)
I	26,3552	28,3619	26,4512	4,78
II	26,4755	28,4813	26,5703	4,73
III	29,2404	31,2407	29,3352	4,74
$\bar{x}$ ±SD				4,75±0,03

Contoh Perhitungan:

Replikasi I:

$$\%\ \text{kadar}\ (\%) = \frac{\text{berat abu konstan}}{\text{berat ekstrak}} \times 100\%$$

$$\%\ \text{kadar}\ (\%) = \frac{28{,}0672 - 27{,}9761}{2{,}0063} \times 100\%$$

$$= 4{,}54\%$$

4. Penentuan Kadar Abu Tidak Larut Asam

Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+HCl konstan (g)	% kadar (%)
I	26,4755	28,4813	26,5703	26,4772	1,79
II	29,2404	31,2407	29,3352	29,2422	1,90
III	27,9055	29,9149	27,9964	27,907	1,65
$\bar{x}$ ± SD					1,78±0,13

Contoh Perhitungan:

Replikasi I:

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

$$\%\ \text{kadar}\ (\%) = \frac{26{,}4772 - 26{,}4755}{0{,}0948} \times 100\%$$

$$= 1{,}79\%$$

5. Penentuan Kadar Abu Larut Air

Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+HCl konstan (g)	% kadar (%)
I	27,9761	29,9824	28,0672	27,9794	3,6224
II	29,8374	31,8416	29,9211	29,8411	3,9112
III	26,3552	28,3619	26,4512	26,3591	4,0625
$\overline{x}$ ± SD					3,87±0,22

Contoh Perhitungan:

Replikasi I:

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

$$\% \text{ kadar } (\%) = \frac{27{,}9794 - 27{,}9761}{0{,}0911} \times 100\%$$

$$= 3{,}6224\%$$

B. Standarisasi Spesifik Ekstrak Daun Teh Hijau (*Camelia sinensis*)

1. Penentuan Nilai pH

Replikasi	Hasil pengamatan
I	5,43
II	5,40
III	5,41
$\overline{x}$ ± SD	5,41±0,02

2. Penentuan Titik Leleh

Replikasi	Hasil pengamatan
I	160,5
II	160,5
III	160,4
$\overline{x}$ ± SD	160,47±0,06

3. Penentuan Ukuran Partikel

Rep	No Mesh	d (µm)	Ln d (µm)	Berat ekstrak yang tertahan (g)	% bobot (%)	% FKB	Nilai z
I	20	850	6,7452	0,1	0,10	99,9	3,01
	40	425	6,0521	0,17	0,17	99,73	2,78
	60	250	5,5215	0,35	0,35	99,38	2,50
	80	180	5,1930	0,57	0,57	98,81	2,26
	100	150	5,0106	0,62	0,62	98,19	2,09
	120	125	4,8283	0,97	0,97	97,22	1,91
	0	0		96,83	97,21	0,01	-3,07
				99,61			
II	20	850	6,7452	0,08	0,08	99,92	3,01
	40	425	6,0521	0,14	0,14	99,78	2,85
	60	250	5,5215	0,21	0,21	99,57	2,63
	80	180	5,1930	0,43	0,43	99,14	2,38
	100	150	5,0106	0,61	0,61	98,53	2,08
	120	125	4,8283	0,98	0,99	97,54	1,97
	0	0		96,92	97,53	0,01	-3,07
				99,37			
III	20	850	6,7452	0,09	0,09	99,91	3,01
	40	425	6,0521	0,18	0,18	99,73	2,78
	60	250	5,5215	0,29	0,29	99,44	2,53
	80	180	5,1930	0,45	0,45	98,99	2,31
	100	150	5,0106	0,69	0,69	98,30	2,02
	120	125	4,8283	0,98	0,98	97,32	1,93
	0	0		96,88	97,31	0,01	-3,07
				99,56			

Replikasi	d50%	d84%	tg	dvs(µm)
I	3,61	21,05	5,83	3,93
II	3,91	21,80	5,57	3,80
III	3,63	21,01	5,80	3,91
$\overline{x}$ ± SD				3,88±0,77

4. Penentuan Kadar Sari Larut Air

Rep	Berat cawan (g)	Berat ekstrak (g)	Berat pemanasan I (g)	Berat pemanasan II (g)	% kadar (%)
I	41,4494	4,9930	42,4262	42,4254	97,88
II	42,2071	5,0256	43,1785	43,1773	96,53
III	50,5851	5,0248	51,5537	51,5525	96,26
$\bar{x}$ ± SD					96,89±0,86

Contoh Perhitungan:

Replikasi I:

Berat ekstrak = 4,9930/5 =0,9986 g

$$\%\ \text{kadar}\ (\%) = \frac{\text{berat pemanasan II} - \text{berat cawan kosong}}{\text{berat ekstrak}/5} \times 100\%$$

$$\%\ \text{kadar}\ (\%) = \frac{42{,}4254 - 41{,}4494}{0{,}9986} \times 100\%$$

$$= 97{,}88\%$$

5. Penentuan Kadar Sari Larut Etanol

Rep	Berat cawan (g)	Berat ekstrak (g)	Berat pemanasan I (g)	Berat pemanasan II (g)	% kadar (%)
I	76,2736	5,0199	77,0096	77,0056	72,91
II	63,9753	5,0425	64,7123	64,7128	72,85
III	53,3481	5,0316	54,0828	54,0803	72,76
$\bar{x}$ ± SD					72,84±0,51

Contoh Perhitungan:

Replikasi I:

Berat ekstrak = 5,0199/5 =1,0040 g

$$\%\ \text{kadar}\ (\%) = \frac{\text{berat pemanasan II} - \text{berat cawan kosong}}{\text{berat ekstrak}/5} \times 100\%$$

$$\%\ \text{kadar}\ (\%) = \frac{77{,}0056 - 76{,}2736}{1{,}0040} \times 100\%$$

$$= 72{,}91\%$$

LAMPIRAN B

HASIL UJI MUTU FISIK GRANUL EKSTRAK DAUN TEH HIJAU (*CAMELLIA SINENSIS*)

Uji Mutu Fisik	Replikasi	Formula Tablet								Persyaratan
		FA		FB		FC		FD		
		Bets 1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2	
Kadar air (%)	I	2,86	2,55	2,55	2,53	2,63	2,66	2,65	2,56	2-5% (Voigt, 1995; Rosanke, Gordon, *and* Fornner, 1990)
	II	2,77	2,68	2,67	2,23	2,70	2,60	2,43	2,68	
	III	2,80	2,86	2,77	2,44	2,34	2,51	2,52	2,44	
	$\bar{x}$± SD	2,81±0,05	2,70±0,16	2,66±0,11	2,40±0,15	2,56±0,19	2,59±0,08	2,53±0,11	2,56±0,12	
Sudut Diam (°)	I	28,80	28,88	30,80	29,78	29,80	29,88	30,80	30,88	25-40° (Cartensen, 1973)
	II	27,88	29,05	29,88	30,05	29,88	29,75	30,88	30,05	
	III	27,97	29,55	29,97	30,55	29,97	29,55	30,97	30,55	
	$\bar{x}$± SD	28,22±0,51	29,16±0,35	30,22±0,51	30,13±0,39	29,88±0,09	29,73±0,17	30,88±0,09	30,49±0,42	
Waktu Alir (detik)	I	8,55	8,24	8,51	8,45	9,95	9,75	9,86	9,65	< 10 detik (Marshal *and* Rudnic, 1986)
	II	8,97	8,67	8,53	8,87	9,88	9,79	9,83	9,89	
	III	8,99	8,21	8,44	8,54	9,50	9,67	9,76	9,68	
	$\bar{x}$± SD	8,84±0,25	8,37±0,26	8,49±0,05	8,62±0,22	9,78±0,24	9,74±0,06	9,82±0,05	9,74±0,13	
Indeks Kompresi-bilitas (%)	I	19,99	18,50	21,00	20,95	22,00	20,99	21,00	20,95	16-25 ° (Siregar, 1992)
	II	18,00	16,30	19,55	19,89	18,55	20,87	19,55	20,89	
	III	17,59	17,00	20,00	19,00	18,00	21,00	20,00	21,60	
	$\bar{x}$± SD	18,53±1,28	17,27±1,12	20,18±0,74	19,95±0,98	19,52±2,17	20,95±0,07	20,18±0,74	21,15±0,39	

Contoh Perhitungan Sudut Diam

Formula A Bets 1:

Berat Persegi Panjang = 4,88

Berat lingkaran = 0,9

Luas persegi panjang = 651

Luas lingkaran $= \frac{0,9}{4,88}$ x 651=120,06 cm^2

L $= \pi, r^2$

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

$r^2 = \frac{120,0615}{3,14}$

r = 6,18

tg α $= \frac{h}{r} = \frac{3,4}{6,1835}$

α $= 28,80^o$

Contoh Perhitungan Indeks Kompresibilitas

Formula A Bets 1:

Berat gelas = 126,58

Berat gelas + granul = 180,43

V_1 = 100 ml

V_2 = 80 ml

Bj nyata $= \frac{W2-W1}{V1} = \frac{180,43-126,58}{100} = 0,54$

Bj mampat $= \frac{W2-W1}{V2} = \frac{180,43-126,58}{80} = 0,67$

Indeks kompresibilitas= $(1-\frac{Bj\ nyata}{Bj\ mampat})$ x 100% = 19,99%

LAMPIRAN C

HASIL UJI MUTU FISIK TABLET EKSTRAK DAUN TEH HIJAU *(CAMELLIA SINENSIS)*

1. Hasil Uji Keseragaman Bobot Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula A Bets 1

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	653,2	655,1	654,2
2	649,7	648,7	651,5
3	645,3	652,5	654,8
4	647,7	653,6	648,8
5	647,8	648,3	656,9
6	653,6	653,2	655,3
7	654,2	647,4	651,9
8	651,5	653,6	647,3
9	654,8	654,2	648,3
10	648,8	656,3	653,2
11	656,9	653,1	647,4
12	655,3	656,4	653,6
13	651,9	657,4	654,2
14	647,3	657,3	647,7
15	648,2	643,5	647,8
16	651,5	650,6	653,6
17	653,1	653,5	657,3
18	651,5	652,4	643,5
19	655,6	655,3	650,6
20	652,4	650,5	653,5
$\bar{x}\pm$SD	651,52±3,20	652,65±3,59	651,57±3,72

Formula A Bets 2

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	651,3	658,8	647,3
2	648,9	646,9	649,9
3	646,3	655,3	655,5
4	649,9	651,9	642,8
5	652,3	657,3	657,3
6	652,6	663,5	663,5
7	649,4	642,4	642,4
8	651,2	655,3	655,3
9	653,5	650,5	648,9
10	657,9	649,7	646,3
11	648,7	645,3	649,9
12	643,9	647,7	652,3
13	651,1	647,8	651,9
14	652,3	663,6	657,3
15	647,3	654,2	663,5
16	649,9	653,6	654,2
17	655,5	658,3	653,6
18	642,8	653,2	658,3
19	654,3	657,4	652,6
20	657,2	643,8	649,4
$\bar{x}\pm$SD	650,82±3,95	652,83±6,07	652,61 ±5,81

Formula B Bets 1

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	654,4	645,9	651,5
2	659,7	660,8	654,8
3	665,5	654,5	649,8
4	647,4	653,6	648,3
5	657,6	648,3	653,2
6	693,6	653,2	651,4
7	644,3	651,4	654,4
8	651,5	654,0	659,7
9	654,8	650,2	665,5
10	649,8	662,3	654,2
11	656,9	653,1	653,6
12	655,3	652,4	658,3
13	661,9	654,4	665,5
14	647,3	643,9	647,4
15	648,2	652,5	650,6
16	651,5	650,6	655,5
17	653,1	655,5	650,4
18	661,5	650,4	645,6
19	645,6	653,3	662,4
20	662,4	649,5	653,3
$\bar{x}$±SD	650,82±3,95	652,83±6,07	654,27±5,58

Formula B Bets 2

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	654,4	645,9	651,5
2	659,7	660,8	654,8
3	665,5	654,5	649,8
4	647,4	653,6	648,3
5	657,6	648,3	653,2
6	693,6	653,2	651,4
7	644,3	651,4	654,4
8	651,5	654,0	659,7
9	654,8	650,2	665,5
10	649,8	662,3	654,2
11	656,9	653,1	653,6
12	655,3	652,4	658,3
13	661,9	654,4	665,5
14	647,3	643,9	647,4
15	648,2	652,5	650,6
16	651,5	650,6	655,5
17	653,1	655,5	650,4
18	661,5	650,4	645,6
19	645,6	653,3	662,4
20	662,4	649,5	653,3
$\bar{x}\pm$SD	650,82±3,95	652,83±6,07	654,27±5,58

Formula C Bets 1

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	648,3	660,8	647,4
2	653,2	653,6	650,6
3	651,4	654,5	649,8
4	665,5	653,6	648,3
5	654,2	653,2	651,4
6	654,4	651,5	654,4
7	659,7	654,8	659,7
8	651,5	654,0	645,9
9	654,8	650,2	647,3
10	643,9	649,8	648,2
11	652,5	656,9	651,5
12	655,3	652,4	647,4
13	661,9	654,4	657,6
14	662,3	693,6	658,3
15	653,1	644,3	665,5
16	654,8	650,6	655,5
17	653,1	655,5	650,4
18	661,5	650,4	645,6
19	645,6	653,3	662,4
20	652,4	659,5	653,3
$\bar{x}\pm$SD	654,47±5,51	655,35±9,68	652,53±5,69

Formula C Bets 2

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	653,2	645,9	651,5
2	651,4	660,8	654,8
3	662,3	654,5	649,8
4	647,4	653,6	652,5
5	647,6	648,3	650,6
6	643,6	654,0	651,4
7	644,3	650,2	654,4
8	654,2	644,4	659,7
9	653,6	669,7	665,5
10	650,9	655,5	650,4
11	656,9	653,1	653,3
12	655,3	652,4	649,5
13	661,9	654,4	650,6
14	647,3	665,5	655,5
15	648,2	647,4	650,4
16	661,5	653,3	645,6
17	653,1	655,5	662,4
18	651,5	651,5	643,9
19	645,6	654,8	648,3
20	642,4	649,8	653,2
$\bar{x}\pm$SD	651,61±5,97	653,73±6,09	652,67±5,19

Formula D Bets 1

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	654,8	657,1	651,5
2	650,7	654,3	654,8
3	654,8	654,5	649,8
4	655,3	653,6	645,9
5	653,2	648,3	660,8
6	657,2	653,2	651,4
7	651,4	658,3	654,4
8	654,0	665,5	659,7
9	650,2	654,4	665,5
10	654,2	643,9	654,2
11	653,6	653,3	653,6
12	658,3	649,5	648,3
13	645,5	662,4	653,2
14	650,4	653,3	650,2
15	660,8	652,4	662,3
16	644,5	650,6	655,5
17	653,6	655,5	650,4
18	653,3	650,4	645,6
19	669,5	654,9	653,3
20	655,5	639,6	649,5
$\bar{x}\pm$SD	654,04±5,28	653,25±5,69	653,50±5,26

Formula D Bets 2

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet (mg)	**Bobot Tablet (mg)**	**Bobot Tablet (mg)**
1	654,4	645,9	651,5
2	659,7	660,8	654,8
3	665,5	654,5	649,8
4	647,4	653,6	648,3
5	657,6	648,3	653,2
6	693,6	653,2	651,4
7	644,3	651,4	654,4
8	651,5	654,0	659,7
9	654,8	650,2	665,5
10	649,8	662,3	654,2
11	656,9	653,1	653,6
12	655,3	652,4	658,3
13	661,9	654,4	665,5
14	647,3	643,9	647,4
15	648,2	652,5	650,6
16	651,5	650,6	655,5
17	653,1	655,5	650,4
18	661,5	650,4	645,6
19	645,6	653,3	662,4
20	662,4	649,5	653,3
$\bar{x}\pm$SD	650,82±3,95	652,83±6,07	654,27±5,58

2. Hasil Uji Keseragaman Ukuran Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula A Bets 1

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,31	1,31	0,315	1,32	0,315	1,32
2	0,32	1,31	0,315	1,31	0,315	1,31
3	0,315	1,31	0,31	1,32	0,31	1,32
4	0,32	1,31	0,315	1,31	0,315	1,31
5	0,32	1,31	0,31	1,31	0,31	1,31
6	0,315	1,32	0,32	1,32	0,32	1,32
7	0,315	1,32	0,315	1,31	0,315	1,31
8	0,315	1,32	0,31	1,32	0,31	1,32
9	0,31	1,32	0,315	1,31	0,315	1,31
10	0,315	1,32	0,31	1,31	0,31	1,32
11	0,31	1,31	0,32	1,32	0,32	1,31
12	0,32	1,32	0,315	1,32	0,315	1,31
13	0,31	1,31	0,315	1,31	0,315	1,32
14	0,315	1,31	0,31	1,32	0,31	1,31
15	0,31	1,32	0,32	1,31	0,32	1,32
16	0,32	1,32	0,315	1,31	0,315	1,31
17	0,32	1,32	0,31	1,32	0,31	1,31
18	0,32	1,32	0,315	1,31	0,315	1,32
19	0,31	1,31	0,31	1,32	0,31	1,31
20	0,31	1,32	0,32	1,31	0,32	1,32
$\bar{x}\pm$SD	0,32±0,00	1,32±0,01	0,31±0,00	1,31±0,01	0,31±0,00	1,31±0,01

Formula A Bets 2

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,31	1,31	0,315	1,31	0,315	1,31
2	0,32	1,32	0,31	1,32	0,31	1,32
3	0,315	1,31	0,315	1,31	0,315	1,31
4	0,31	1,31	0,31	1,31	0,31	1,32
5	0,32	1,32	0,32	1,32	0,32	1,31
6	0,315	1,32	0,315	1,31	0,315	1,31
7	0,315	1,31	0,31	1,31	0,31	1,32
8	0,31	1,31	0,32	1,32	0,32	1,31
9	0,32	1,32	0,315	1,32	0,315	1,31
10	0,31	1,31	0,315	1,31	0,315	1,32
11	0,315	1,31	0,31	1,32	0,31	1,31
12	0,31	1,32	0,32	1,31	0,32	1,32
13	0,315	1,32	0,315	1,31	0,315	1,31
14	0,315	1,32	0,31	1,32	0,31	1,32
15	0,31	1,32	0,315	1,31	0,315	1,31
16	0,315	1,32	0,31	1,31	0,31	1,32
17	0,31	1,31	0,32	1,32	0,32	1,31
18	0,32	1,32	0,315	1,32	0,315	1,31
19	0,31	1,31	0,315	1,31	0,315	1,32
20	0,315	1,31	0,31	1,32	0,31	1,31
$\overline{x}\pm$SD	0,31±0,00	1,32±0,01	0,31±0,00	1,31±0,01	0,31±0,00	1,31±0,01

Formula B Bets 1

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,31	1,31	0,315	1,32	0,315	1,32
2	0,32	1,31	0,32	1,315	0,315	1,32
3	0,315	1,31	0,32	1,31	0,32	1,31
4	0,32	1,31	0,31	1,315	0,315	1,31
5	0,32	1,32	0,32	1,31	0,32	1,32
6	0,315	1,32	0,315	1,32	0,315	1,32
7	0,315	1,31	0,32	1,32	0,315	1,31
8	0,32	1,32	0,315	1,32	0,31	1,32
9	0,31	1,32	0,315	1,32	0,32	1,32
10	0,315	1,31	0,31	1,31	0,31	1,31
11	0,31	1,32	0,315	1,32	0,32	1,32
12	0,32	1,32	0,31	1,31	0,315	1,32
13	0,31	1,31	0,31	1,31	0,32	1,32
14	0,32	1,31	0,31	1,32	0,31	1,31
15	0,315	1,32	0,32	1,32	0,31	1,31
16	0,315	1,32	0,32	1,32	0,32	1,31
17	0,31	1,32	0,315	1,31	0,315	1,32
18	0,315	1,32	0,32	1,32	0,31	1,31
19	0,31	1,31	0,32	1,32	0,32	1,31
20	0,32	1,32	0,315	1,32	0,31	1,31
$\bar{x}\pm$SD	0,32±0,00	1,32±0,01	0,32±0,00	1,32±0,00	0,32±0,00	1,32±0,01

Formula B Bets 2

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,31	1,31	0,31	1,31	0,32	1,32
2	0,32	1,31	0,31	1,32	0,31	1,31
3	0,31	1,31	0,31	1,31	0,32	1,32
4	0,32	1,31	0,31	1,32	0,31	1,31
5	0,315	1,32	0,32	1,32	0,31	1,31
6	0,31	1,31	0,31	1,31	0,32	1,32
7	0,32	1,31	0,31	1,32	0,31	1,31
8	0,315	1,32	0,32	1,32	0,31	1,31
9	0,31	1,31	0,31	1,31	0,32	1,32
10	0,32	1,31	0,31	1,32	0,31	1,31
11	0,315	1,32	0,32	1,32	0,31	1,31
12	0,32	1,31	0,31	1,32	0,31	1,31
13	0,31	1,31	0,31	1,31	0,32	1,32
14	0,32	1,31	0,31	1,32	0,31	1,31
15	0,31	1,31	0,31	1,31	0,32	1,32
16	0,32	1,31	0,31	1,32	0,31	1,31
17	0,31	1,31	0,31	1,31	0,32	1,32
18	0,32	1,31	0,31	1,32	0,31	1,31
19	0,315	1,32	0,32	1,32	0,31	1,31
20	0,31	1,31	0,31	1,31	0,32	1,32
$\overline{x}\pm$SD	0,32±0,00	1,31±0,01	0,31±0,00	1,32±0,01	0,31±0,01	1,31±0,01

Formula C Bets 1

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,31	1,31	0,32	1,31	0,315	1,32
2	0,32	1,31	0,32	1,32	0,315	1,32
3	0,315	1,31	0,315	1,31	0,315	1,31
4	0,32	1,31	0,31	1,32	0,315	1,32
5	0,32	1,31	0,315	1,32	0,32	1,32
6	0,315	1,32	0,31	1,31	0,32	1,32
7	0,315	1,32	0,32	1,32	0,315	1,32
8	0,315	1,32	0,31	1,32	0,315	1,32
9	0,31	1,32	0,31	1,32	0,31	1,32
10	0,315	1,32	0,32	1,32	0,32	1,31
11	0,31	1,31	0,31	1,32	0,32	1,32
12	0,32	1,32	0,315	1,32	0,31	1,32
13	0,31	1,31	0,31	1,31	0,32	1,32
14	0,315	1,31	0,315	1,31	0,315	1,32
15	0,31	1,32	0,31	1,32	0,32	1,31
16	0,32	1,32	0,315	1,32	0,32	1,31
17	0,32	1,32	0,31	1,32	0,32	1,31
18	0,32	1,32	0,32	1,32	0,31	1,31
19	0,31	1,31	0,32	1,32	0,31	1,31
20	0,31	1,32	0,315	1,32	0,31	1,31
$\overline{x}\pm$SD	0,32±0,00	1,32±0,01	0,31±0,00	1,32±0,00	0,32±0,00	1,32±0,00

Formula C Bets 2

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,32	1,32	0,315	1,32	0,32	1,31
2	0,32	1,32	0,31	1,32	0,32	1,31
3	0,32	1,32	0,32	1,32	0,31	1,31
4	0,32	1,32	0,315	1,32	0,32	1,31
5	0,32	1,32	0,31	1,32	0,32	1,31
6	0,32	1,32	0,32	1,32	0,31	1,31
7	0,32	1,32	0,315	1,32	0,32	1,31
8	0,32	1,32	0,31	1,32	0,32	1,31
9	0,32	1,32	0,32	1,32	0,31	1,31
10	0,31	1,31	0,32	1,32	0,31	1,31
11	0,31	1,32	0,315	1,32	0,31	1,31
12	0,32	1,32	0,315	1,32	0,32	1,31
13	0,32	1,32	0,315	1,32	0,32	1,31
14	0,32	1,32	0,31	1,32	0,32	1,31
15	0,32	1,32	0,32	1,32	0,31	1,31
16	0,31	1,31	0,32	1,32	0,31	1,31
17	0,31	1,32	0,315	1,32	0,31	1,31
18	0,32	1,32	0,315	1,32	0,32	1,31
19	0,32	1,32	0,31	1,32	0,32	1,31
20	0,32	1,32	0,32	1,32	0,31	1,31
$\bar{x}\pm$SD	0,32±0,00	1,32±0,00	0,32±0,00	1,32±0,00	0,32±0,01	1,31±0,00

Formula D Bets 1

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,315	1,32	0,32	1,32	0,315	1,32
2	0,315	1,32	0,31	1,32	0,315	1,32
3	0,31	1,32	0,31	1,32	0,31	1,32
4	0,315	1,32	0,32	1,32	0,315	1,32
5	0,315	1,32	0,31	1,32	0,315	1,32
6	0,31	1,32	0,31	1,32	0,31	1,32
7	0,315	1,32	0,32	1,32	0,32	1,31
8	0,31	1,31	0,31	1,32	0,32	1,32
9	0,315	1,32	0,32	1,32	0,315	1,32
10	0,315	1,32	0,31	1,32	0,315	1,32
11	0,315	1,32	0,32	1,32	0,315	1,32
12	0,315	1,32	0,31	1,32	0,315	1,32
13	0,31	1,32	0,31	1,32	0,31	1,32
14	0,315	1,32	0,32	1,32	0,32	1,31
15	0,31	1,31	0,31	1,32	0,32	1,32
16	0,315	1,32	0,32	1,32	0,315	1,32
17	0,315	1,32	0,32	1,32	0,315	1,32
18	0,315	1,32	0,31	1,32	0,315	1,32
19	0,31	1,32	0,31	1,32	0,31	1,32
20	0,315	1,32	0,32	1,32	0,32	1,31
$\overline{x}\pm SD$	0,31±0,00	1,32±0,00	0,31±0,01	1,32±0,00	0,32±0,00	1,32±0,00

Formula D Bets 2

No	Replikasi I		Replikasi II		Replikasi III	
	Tebal (mm)	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**	**Tebal (mm)**	**Diameter (cm)**
1	0,31	1,31	0,31	1,32	0,32	1,32
2	0,315	1,32	0,32	1,32	0,315	1,32
3	0,31	1,31	0,31	1,32	0,32	1,32
4	0,315	1,32	0,32	1,32	0,315	1,32
5	0,315	1,32	0,31	1,32	0,315	1,32
6	0,32	1,32	0,32	1,32	0,315	1,32
7	0,31	1,32	0,31	1,32	0,315	1,32
8	0,31	1,32	0,31	1,32	0,31	1,32
9	0,31	1,31	0,31	1,32	0,32	1,32
10	0,32	1,32	0,32	1,32	0,315	1,32
11	0,31	1,32	0,31	1,32	0,315	1,32
12	0,315	1,32	0,32	1,32	0,315	1,32
13	0,315	1,32	0,31	1,32	0,315	1,32
14	0,31	1,32	0,31	1,32	0,31	1,32
15	0,315	1,32	0,32	1,32	0,32	1,31
16	0,31	1,31	0,31	1,32	0,32	1,32
17	0,315	1,32	0,32	1,32	0,315	1,32
18	0,315	1,32	0,31	1,32	0,315	1,32
19	0,315	1,32	0,32	1,32	0,315	1,32
20	0,315	1,32	0,31	1,32	0,315	1,32
$\overline{x}\pm$SD	0,31±0,00	1,32±0,00	0,31±0,01	1,32±0,00	0,32±0,00	1,32±0,00

1. Hasil Uji Kekerasan Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Replikasi I

No	Kekerasan Tablet (Kgf)							
	Formula A		Formula B		Formula C		Formula D	
	Bets1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2
1	4,3	4,9	6,2	7,1	4,7	6,5	7,9	7,6
2	5,3	5,9	6,8	6,3	5,2	4,7	7,2	7,0
3	5,6	5,7	6,4	6,3	5,2	6,5	6,8	7,1
4	5,3	5,3	6,9	6,7	5,6	5,3	6,4	6,8
5	5,1	5,4	5,9	6,5	5,7	5,0	6,1	5,9
6	5,7	4,5	6,4	5,7	5,6	5,0	6,5	7,5
7	5,4	5,1	6,9	6,5	5,6	7,0	7,3	6,0
8	5,1	5,9	6,3	6,5	6,5	7,1	6,5	6,5
9	5,4	5,7	6,5	6,2	6,9	6,9	5,7	7,4
10	5,3	5,6	6,4	6,2	5,7	5,8	6,4	5,9
$\bar{x}$±SD	5,25±0,38	5,40±0,46	6,47±0,32	6,40±0,37	5,67±0,63	5,98±0,93	6,68±0,64	6,77±0,66

Replikasi II

No	Kekerasan Tablet (Kgf)							
	Formula A		Formula B		Formula C		Formula D	
	Bets1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2
1	5,3	6,2	6,7	6,2	7,4	4,5	7,3	6,6
2	5,3	5,8	6,2	6,2	6,5	4,3	6,5	7,0
3	5,6	5,4	6,2	6,8	4,7	4,5	5,7	7,1
4	5,3	6,9	6,6	6,4	6,5	5,3	6,4	6,8
5	5,1	5,9	6,7	5,1	4,2	7,0	6,1	5,9
6	5,7	5,4	6,6	6,5	4,8	5,0	6,5	6,9
7	5,4	5,9	6,6	5,3	4,4	4,7	7,1	7,2
8	6,1	5,3	6,5	6,5	4,1	6,4	6,8	6,8
9	6,4	4,5	5,9	6,7	6,9	6,2	5,9	6,4
10	5,3	6,4	5,7	6,4	5,8	6,1	6,4	5,9
$\overline{x}\pm$SD	5,55±0,41	5,77±0,67	6,37±0,35	6,21±0,57	5,53±1,23	5,40±0,95	6,47±0,50	6,66±0,46

Replikasi III

No	Kekerasan Tablet (Kgf)							
	Formula A		Formula B		Formula C		Formula D	
	Bets 1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2	Bets 1	Bets 2
1	5,6	5,3	6,7	6,4	7,8	4,7	6,8	7,6
2	5,6	5,4	5,6	6,6	4,4	6,2	5,9	7,0
3	5,5	5,9	6,5	6,3	4,1	6,2	7,9	7,1
4	5,4	5,3	6,9	6,0	7,4	6,0	6,4	7,3
5	6,1	4,5	5,7	6,1	6,5	6,5	6,1	6,5
6	5,7	6,2	6,2	5,5	4,7	5,0	6,8	5,7
7	5,4	5,8	7,2	5,3	6,5	4,5	6,4	7,2
8	5,1	5,4	6,6	5,5	4,2	4,3	5,9	6,5
9	6,4	6,9	6,7	6,0	6,7	4,5	5,9	7,1
10	5,3	6,4	6,6	6,4	5,4	5,3	6,4	6,8
$\bar{x}$±SD	5,61±0,38	5,71±0,68	6,47±0,50	6,01±0,44	5,77±1,38	5,32±0,84	6,45±0,61	6,88±0,54

2. Hasil Uji Kerapuhan Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula	Bets	Rep	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	$\overline{x} \pm SD$
A	1	I	12,68	12,60	0,63	0,68±0,05
		II	12,59	12,50	0,71	
		III	12,69	12,60	0,71	
	2	I	12,93	12,85	0,62	0,62±0,01
		II	12,95	12,87	0,62	
		III	12,74	12,66	0,63	
B	1	I	12,59	12,48	0,87	0,90±0,05
		II	12,74	12,63	0,86	
		III	12,61	12,49	0,95	
	2	I	12,59	12,48	0,87	0,92±0,04
		II	12,74	12,62	0,94	
		III	12,61	12,49	0,95	
C	1	II	12,74	12,60	1,10	0,99±0,11
		III	12,61	12,50	0,87	
		III	12,86	12,73	1,01	
	2	II	12,74	12,62	0,94	0,94±0,01
		III	12,61	12,49	0,95	
		III	12,86	12,74	0,93	
D	1	I	12,66	12,51	1,18	1,05±0,12
		II	12,76	12,64	0,94	
		III	12,55	12,42	1,04	
	2	I	12,85	12,73	0,93	0,99±0,08
		II	12,98	12,84	1,08	
		III	12,65	12,53	0,95	

Contoh perhitungan:

Formula A Bets 1

Berat awal (Wo) = 12,68 g

Berat akhir (W1) =12,60 g

$$\text{Kerapuhan} = \frac{(Wo - W1)}{Wo} \times 100\%$$

$$= \frac{(12{,}68 - 12{,}60)}{12{,}68} \times 100\%$$

$$= 0{,}68$$

3. Hasil Uji Waktu Hancur Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula	Bets	Replikasi	Waktu Hancur tablet (menit)	x ± SD
A	1	I	11,25	10,97±0,36
		II	11,10	
		III	10,57	
	2	I	10,95	11,10±0,18
		II	11,30	
		III	11,05	
B	1	I	9,45	9,34±0,12
		II	9,37	
		III	9,21	
	2	I	9,37	9,32±0,06
		II	9,26	
		III	9,34	
C	1	I	7,55	7,30±0,26
		II	7,31	
		III	7,04	
	2	I	7,01	7,47±0,40
		II	7,67	
		III	7,74	
D	1	I	6,62	6,69±0,08
		II	6,66	
		III	6,78	
	2	I	6,68	6,63±0,05
		II	6,63	
		III	6,58	

LAMPIRAN D

HASIL UJI STATISTIK ANTAR BETS TABLET EKSTRAK DAUN TEH HIJAU *(CAMELLIA SINENSIS)*

1. Kekerasan Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula A

Paired Sampel Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	5.4700	3	.19287	.11136
	bets2	5.6267	3	.19858	.11465

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	.953	.196

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	-.15667	.06028	.03480	-.30640	-.00693	-4.502	2	.046

T hitung -4,502 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula B

Paired Sampel Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	6.4367	3	.05774	.03333
	bets2	6.2067	3	.19502	.11260

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.015	.991

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	.23000	.20421	.11790	-.27728	.73728	1.951	2	.190

T hitung 1,951< $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula C

Paired Sampel Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	5.6567	3	.12055	.06960
	bets2	5.5667	3	.36019	.20795

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.015	.990

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	.09000	.38158	.22030	-.85789	1.03789	.409	2	.722

T hitung 0,409< $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula D

Paired Sampel Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	6.5333	3	.12741	.07356
	bets2	6.7700	3	.11000	.06351

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.078	.950

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	-.23667	.17474	.10088	-.67074	.19741	-2.346	2	.144

T hitung -2,346 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

2. Kerapuhan Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula A

Paired Sampel Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	.6833	3	.04619	.02667
	bets2	.6233	3	.00577	.00333

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	.500	.667

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	.06000	.04359	.02517	-.04828	.16828	2.384	2	.140

T hitung 2,384 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula B

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	.8933	3	.04933	.02848
	bets2	.9200	3	.04359	.02517

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	.512	.658

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	-.02667	.04619	.02667	-.14140	.08807	-1.000	2	.423

T hitung -1,000 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula C

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	.9933	3	.11590	.06692
	bets2	.9400	3	.01000	.00577

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.604	.587

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	.05333	.12220	.07055	-.25023	.35690	.756	2	.529

T hitung $0{,}756 < T_{0,05}(2) = 2{,}920$ sehingga tidak ada perbedaan bermakna antar bets

Formula D

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	1.0533	3	.12055	.06960
	bets2	.9867	3	.08145	.04702

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.879	.316

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	.06667	.19604	.11319	-.42033	.55367	.589	2	.616

T hitung $0{,}589 < T_{0,05}(2) = 2{,}920$ sehingga tidak ada perbedaan bermakna antar bets

3. Waktu Hancur Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

Formula A

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	10.9733	3	.35726	.20626
	bets2	11.1000	3	.18028	.10408

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	.031	.980

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	-.12667	.39514	.22813	-1.10824	.85491	-.555	2	.635

T hitung -0,555 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula B

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	9.3433	3	.12220	.07055
	bets2	9.3233	3	.05686	.03283

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	.077	.951

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 – Bets2	.02000	.13077	.07550	-.30484	.34484	.265	2	.816

T hitung 0,265 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula C

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	7.3000	3	.25515	.14731
	bets2	7.4733	3	.40278	.23255

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.891	.300

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	-.17333	.64073	.36992	-1.76499	1.41833	-.469	2	.685

T hitung -0,469 < $T_{0,05}$ (2) = 2,920 sehingga tidak ada perbedaan bermakna antar bets

Formula D

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	bets1	6.6867	3	.08327	.04807
	bets2	6.6300	3	.05000	.02887

Paired Sampel Correlations

		N	Correlation	Sig.
Pair 1	bets1 & bets2	3	-.961	.179

Paired Sampel Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Bets1 - Bets2	.05667	.13204	.07623	-.27133	.38466	.743	2	.535

T hitung $0{,}743 < T_{0{,}05}(2) = 2{,}920$ sehingga tidak ada perbedaan bermakna antar bets

LAMPIRAN E

HASIL UJI STATISTIK ANTAR FORMULA TABLET EKSTRAK DAUN TEH HIJAU *(CAMELLIA SINENSIS)*

1. Kekerasan Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

ANOVA

Kekerasan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.615	3	.872	48.896	.000
Within Groups	.143	8	.018		
Total	2.757	11			

Post Hoc Test

Multiple Comparisons

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula A	Formula B	-.96667*	.10901	.000	-1.3158	-.6176
	Formula C	-.18667	.10901	.377	-.5358	.1624
	Formula D	-1.06333*	.10901	.000	-1.4124	-.7142
Formula B	Formula A	.96667*	.10901	.000	.6176	1.3158
	Formula C	.78000*	.10901	.000	.4309	1.1291
	Formula D	-.09667	.10901	.812	-.4458	.2524
Formula C	Formula A	.18667	.10901	.377	-.1624	.5358
	Formula B	-.78000*	.10901	.000	-1.1291	-.4309
	Formula D	-.87667*	.10901	.000	-1.2258	-.5276
Formula D	Formula A	1.06333*	.10901	.000	.7142	1.4124
	Formula B	.09667	.10901	.812	-.2524	.4458
	Formula C	.87667*	.10901	.000	.5276	1.2258

F hitung (48,986) > $F_{0,05}$ (3,8) = 4,07 sehingga ada perbadaan bermakna antar formula

Homogeneous Subsets
Kekerasan

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05	
		1	2
Formula A	3	5.4700	
Formula C	3	5.6567	
Formula B	3		6.4367
Formula D	3		6.5333
Sig.		.377	.812

Means for groups in homogeneous subsets are displayed.

Uses Harmonic Mean Sample Size = 3.000.

2. Kerapuhan Tablet

ANOVA

Kerapuhan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.237	3	.079	9.722	.005
Within Groups	.065	8	.008		
Total	.302	11			

Post Hoc Tests

Multiple Comparisons

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula A	Formula B	-.21000	.07364	.082	-.4458	.0258
	Formula C	-.31000*	.07364	.013	-.5458	-.0742
	Formula D	-.37000*	.07364	.004	-.6058	-.1342
Formula B	Formula A	.21000	.07364	.082	-.0258	.4458
	Formula C	-.10000	.07364	.556	-.3358	.1358
	Formula D	-.16000	.07364	.210	-.3958	.0758
Formula C	Formula A	.31000*	.07364	.013	.0742	.5458
	Formula B	.10000	.07364	.556	-.1358	.3358
	Formula D	-.06000	.07364	.846	-.2958	.1758
Formula D	Formula A	.37000*	.07364	.004	.1342	.6058
	Formula B	.16000	.07364	.210	-.0758	.3958
	Formula C	.06000	.07364	.846	-.1758	.2958

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

F hitung (9,722) > $F_{0,05}$ (3,8) = 4,07 sehingga ada perbadaan bermakna antar formula

Homogeneous Subsets

Kerapuhan

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05	
		1	2
Formula A	3	.6833	
Formula B	3	.8933	.8933
Formula C	3		.9933
Formula D	3		1.0533
Sig.		.082	.210

Means for groups in homogeneous subsets are displayed.

Uses Harmonic Mean Sample Size = 3.000.

3. Waktu Hancur Tablet Ekstrak Daun Teh Hijau (*Camellia sinensis*)

ANOVA

WaktuHancur

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	34.601	3	11.534	214.982	.000
Within Groups	.429	8	.054		
Total	35.030	11			

Post Hoc Tests

Multiple Comparisons

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Formula A	Formula B	1.63000*	.18912	.000	1.0244	2.2356
	Formula C	3.67333*	.18912	.000	3.0677	4.2790
	Formula D	4.28667*	.18912	.000	3.6810	4.8923
Formula B	Formula A	-1.63000*	.18912	.000	-2.2356	-1.0244
	Formula C	2.04333*	.18912	.000	1.4377	2.6490
	Formula D	2.65667*	.18912	.000	2.0510	3.2623
Formula C	Formula A	-3.67333*	.18912	.000	-4.2790	-3.0677
	Formula B	-2.04333*	.18912	.000	-2.6490	-1.4377
	Formula D	.61333*	.18912	.047	.0077	1.2190
Formula D	Formula A	-4.28667*	.18912	.000	-4.8923	-3.6810
	Formula B	-2.65667*	.18912	.000	-3.2623	-2.0510
	Formula C	-.61333*	.18912	.047	-1.2190	-.0077

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

F hitung (214,892) > $F_{0,05}$ (3,8) = 4,07 sehingga ada perbedaan bermakna antar formula

Homogeneous Subsets

WaktuHancur

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula D	3	6.6867			
Formula C	3		7.3000		
Formula B	3			9.3433	
Formula A	3				10.9733
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN F

HASIL UJI STATISTIK ANAVA SATU ARAH KEKERASAN TABLET EKSTRAK DAUN TEH HIJAU *(CAMELLIA SINENSIS)*

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 Prob > F	
Model	1.75	3	0.58	32.32	0.0029	significant
A-Na croskarmelosa	0.076	1	0.076	4.22	0.1092	
B-Amilum Manihot	1.64	1	1.64	90.88	0.0007	
AB	0.034	1	0.04	1.88	0.2427	
Pure Error	0.072	4	0.018			
Cor Total	1.82	7				

The Model F-value of 32.32 implies the model is significant. There is only a 0.29% 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 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.	0.13	R-Squared
Mean6.04		Adj R-Squared
C.V. %	2.22	Pred R-Squared
PRESS	0.29	Adeq Precision

The "Pred R-Squared" of 0.8415 is in reasonable agreement with the "Adj R-Squared" of 0.9307. "Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable.

Your ratio of 11.587 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	6.04	1	0.047	5.90	6.17	
A-Natrium croskarmelosa	0.097	1	0.047	-0.034	0.23	1.00
B-Amilum Manihot	0.45	1	0.047	0.32	0.58	1.00
AB	0.065	1	0.047	-0.067	0.20	1.00

Final Equation in Terms of Coded Factors:

Kekerasan =
+6.04
+0.097 * A
+0.45 * B
+0.065 * A * B

Final Equation in Terms of Actual Factors:

Kekerasan =
+6.03500
+0.097500 * Natrium croskarmelosa
+0.45250 * Amilum Manihot
+0.065000 * Natrium croskarmelosa * Amilum Manihot

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 G

HASIL UJI STATISTIK ANAVA SATU ARAH KERAPUHAN TABLET TEH HIJAU *(CAMELLIA SINENSIS)*

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	p-value Prob > F	
Model	0.16	3	0.054	42.49	0.0017	significant
A-Na croskarmelosa	0.090	1	0.090	71.53	0.0011	
B-Amilum Manihot	0.050	1	0.050	39.30	0.0033	
AB	0.021	1	0.021	16.64	0.0151	
Pure Error	5.50E-003	4	1.262E-003			
Cor Total	0.17	7				

The Model F-value of 42.49 implies the model is significant. There is only a 0.17% 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, 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.	0.036	R-Squared
Mean	0.89	Adj R-Squared
C.V. %	4.01	Pred R-Squared
PRESS	0.020	Adeq Precision

The "Pred R-Squared" of 0.8783 is in reasonable agreement with the "Adj R-Squared" of 0.9468.
"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 14.727 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	0.89	1	0.013	0.85	0.92	
A-Natrium croskarmelosa	0.11	1	0.013	0.071	0.14	1.00
B-Amilum Manihot	0.079	1	0.013	0.044	0.11	1.00
AB	-0.051	1	0.013	-0.086	-0.016	1.00

Final Equation in Terms of Coded Factors:

Kerapuhan =
+0.89
+0.11 * A
+0.079 * B
-0.051 * A * B

Final Equation in Terms of Actual Factors:

Kerapuhan =
+0.88625
+0.10625 * Natrium croskarmelosa
+0.078750 * Amilum Manihot
-0.051250 * Natrium croskarmelosa * Amilum Manihot

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 H

HASIL UJI STATISTIK ANAVA SATU ARAH WAKTU HANCUR TABLET TEH HIJAU *(CAMELLIA SINENSIS)*

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	23.40	3	7.80	1253.22	0.0001	significant
A-Na croskarmelosa	19.97	1	19.97	3208.22	0.0001	
B-Amilum Manihot	2.95	1	2.95	474.29	0.0001	
AB	0.48	1	0.48	77.14	0.0009	
Pure Error	0.025	4	6.225E-003			
Cor Total	23.43	7				

The Model F-value of 1253.22 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, B, 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.	0.079	R-Squared
Mean	8.60	Adj R-Squared
C.V. %	0.92	Pred R-Squared
PRESS	0.100	Adeq Precision

The "Pred R-Squared" of 0.9957 is in reasonable agreement with the "Adj R-Squared" of 0.9981.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your ratio of 78.419 indicates an adequate signal.
This model can be used to navigate the design space.

Coefficient Factor	Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	8.60	1	0.028	8.53	8.68	
A-Natrium croskarmelosa	-1.58	1	0.028	-1.66	-1.50	1.00
B-Amilum Manihot	-0.61	1	0.028	-0.68	-0.53	1.00
AB	0.25	1	0.028	0.17	0.32	1.00

Final Equation in Terms of Coded Factors:

Waktu Hancur =
+8.60
-1.58 * A
-0.61 * B
+0.25 * A * B

Final Equation in Terms of Actual Factors:

Waktu Hancur =
+8.60250
-1.58000 * Natrium croskarmelosa
-0.60750 * Amilum Manihot
+0.24500 * Natrium croskarmelosa * Amilum Manihot

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 I
HASIL PERHITUNGAN KONVERSI NILAI TINGKAT MENJADI NILAI RIIL

Contoh hasil perhitungan konversi nilai tingkat menjadi nilai riil

$$X' = \frac{X - rata - rata\ 2\ level}{\frac{1}{2} x perbedaan\ level}$$

Amilum Manihot

$$0{,}7 = \frac{X - 7{,}5}{\frac{1}{2} x5}$$

$$= 9{,}25\%$$

Natrium Croskarmelosa

$$0{,}7 = \frac{X - 2{,}75}{\frac{1}{2} x4{,}5}$$

$$= 4{,}44\%$$

LAMPIRAN J
SERTIFIKAT ANALISIS PEMBELIAN EKSTRAK TEH HIJAU (*CAMELLIA SINENSIS*)

NATURA
FOOD & NUTRACEUTICAL COMPANY

QA Dept.

Certificate of Analysis

Ref. No.0568/CoA/QA/IX/13 – P04SI072.04

Product Name : **Green Tea PE**
Product Code : **5001B**
Batch/Lot No. : **P5001B631201**

Manufacturing date : June 26th 2013
Best used before : December 26th 2014
Date of issued : September 05th 2013

Test Descriptions	Specification	Results
Sensory Evaluation		
- Color (Visual)	Light brown to brown	Light brown
- Appearance (Visual)	Homogeny, fine powder	Conform
- Odour and Taste (Smell)	Characteristic odour and taste of Green Tea	Conform
Physicochemical		
- Solubility (0,1% water)	Soluble in water	Conform
- Particle Size (Sieve thru mesh #100)	Min.90 %	99 %
- Lost On Drying (IR/105 °C)	Max. 8 %	3 %
- Tapped Density (50 ml / 500-750 X)	0.30 – 0.60 g/mL	0,39 g/ml
- *pH at 25 °C (1.0 % solution)*	*4.5 – 5.5*	*5,1*
Microbiological		
- Aerobic Plate Count	Max. 1.10^4 cfu/g	< 1.10^4 cfu/g
- Yeast and Mold	Max. 1.10^2 cfu/g	< 1.10^3 cfu/g
- Apm Koliform	Max. 3.10^1 cfu/10g	< 3.10^1 cfu/10g
- Salmonella sp	Negative/25g	Conform
- *Staphylococcus aureus*	Negative/g	Conform

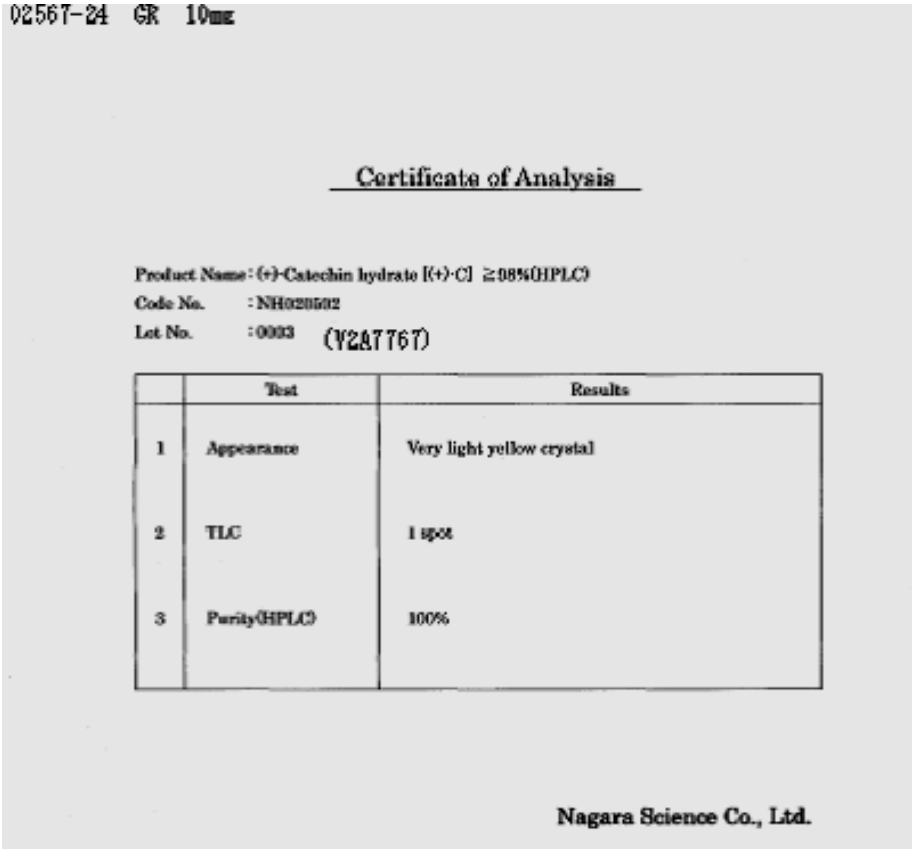
Dion Kristianto – QA Dept. :

NATURA LABORATORIA PRIMA pt.

Office : Jl. Suryopranoto, Kompleks Harmoni Plaza Blok J3-J4, Jakarta 10130 - Indonesia. Ph. +62-21-6318949 (hunting), Fax. +62-21-6318948.
Factory & Extraction Center : Jl. Stadion No. 26, Pandaan, Pasuruan 67156, East Java - Indonesia. Ph. +62-343-633432, 633433 Fax. +62-343-633435
e-mail : info@natura-lab.com
Website : http://www.natura-lab.com

LAMPIRAN K

SERTIFIKAT ANALISIS PEMBELIAN KATEKIN HIDRAT



02567-24 GR 10mg

Certificate of Analysis

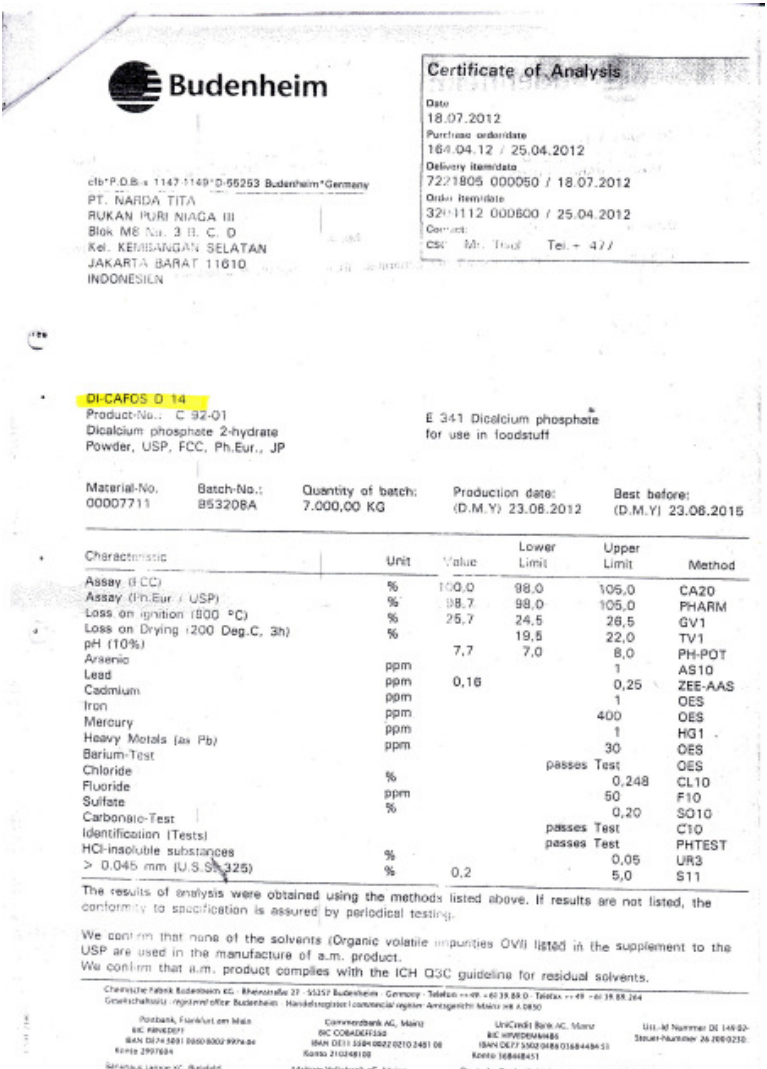
Product Name : (+)-Catechin hydrate [(+)-C] ≧98%(HPLC)
Code No. : NH020502
Lot No. : 0003 (Y2A7767)

	Test	Results
1	Appearance	Very light yellow crystal
2	TLC	1 spot
3	Purity(HPLC)	100%

Nagara Science Co., Ltd.

LAMPIRAN L

SERTIFIKAT ANALISIS PEMBELIAN BAHAN KALSIUM FOSFAT DIBASIK ANHIDRAT



Budenheim

Certificate of Analysis

Date
18.07.2012
Purchase order/date
164.04.12 / 25.04.2012
Delivery item/date
72/1805 000050 / 18.07.2012
Order item/date
32/1112 000600 / 25.04.2012
Contact:
CSC Ms. Trost Tel.: - 477

cfb*P.O.B.s 1147-1149*D-55253 Budenheim*Germany
PT. NARDA TITA
RUKAN PURI NIAGA III
Blok M8 No. 3 B. C. D
Kel. KEMBANGAN SELATAN
JAKARTA BARAT 11610
INDONESIEN

DI-CAFOS D 14
Product-No.: C 92-01
Dicalcium phosphate 2-hydrate
Powder, USP, FCC, Ph.Eur., JP

E 341 Dicalcium phosphate
for use in foodstuff

Material-No.	Batch-No.:	Quantity of batch:	Production date:	Best before:
00007711	853208A	7.000,00 KG	(D.M.Y) 23.06.2012	(D.M.Y) 23.06.2015

Charactenistic	Unit	Value	Lower Limit	Upper Limit	Method
Assay (I.CC)	%	100,0	98,0	105,0	CA20
Assay (Ph.Eur. / USP)	%	98,7	98,0	105,0	PHARM
Loss on ignition (800 °C)	%	25,7	24,5	26,5	GV1
Loss on Drying (200 Deg.C, 3h)	%		19,5	22,0	TV1
pH (10%)		7,7	7,0	8,0	PH-POT
Arsenic	ppm			1	AS10
Lead	ppm	0,16		0,25	ZEE-AAS
Cadmium	ppm			1	OES
Iron	ppm			400	OES
Mercury	ppm			1	HG1
Heavy Metals (as Pb)	ppm			30	OES
Barium-Test			passes Test		OES
Chloride	%			0,248	CL10
Fluoride	ppm			50	F10
Sulfate	%			0,20	SO10
Carbonate-Test			passes Test		C10
Identification (Tests)			passes Test		PHTEST
HCl-insoluble substances	%			0,05	UR3
> 0.045 mm (U.S.S. 325)	%	0,2		5,0	S11

The results of analysis were obtained using the methods listed above. If results are not listed, the conformity to specification is assured by periodical testing.

We confirm that none of the solvents (Organic volatile impurities OVI) listed in the supplement to the USP are used in the manufacture of a.m. product.
We confirm that a.m. product complies with the ICH Q3C guideline for residual solvents.

LAMPIRAN M

SERTIFIKAT ANALISIS PEMBELIAN BAHAN NATRIUM CROSKARMELOSA

JRS PHARMA JRS THE EXCIPIENT FAMILY

VIVASOL®

Croscarmellose Sodium Ph. Eur., NF, JP

CERTIFICATE OF ANALYSIS

Batch-no.: 3201014136 Manufacturing site: Pirna, Germany
Re-evaluation date: December 2015
Manufacturing date: December 2011

Description	Almost white, very hygroscopic powder; practically insoluble in acetone, ethanol, ether and toluene.

Standards	Specification	Batch Result	Reference
Particle size (retained on air jet sieve)			T226F (MCW)
> 75 µm (200 mesh)	max. 2 %	< 2 %*	
> 45 µm (325 mesh)	max. 10 %	< 10 %*	

Pharmacopoeial test items	Specification	Batch Result	Reference
Identification (A, B, C), (1, 2, 3)	passes	passes*	Ph. Eur., NF, JP
Degree of Substitution	0.60 – 0.85	0.77 *	Ph. Eur., NF, JP
Loss on drying	max. 10.0 %	3.9 %	Ph. Eur., NF, JP
pH	5.0 - 7.0	6.1	Ph. Eur., USP, JP
Content of water-soluble material	1.0 -10.0 %	5.1 %	Ph. Eur., NF, JP
Sulphated ash	14.0 – 28.0 %	passes*	Ph. Eur., JP
Settling volume	10.0 – 30.0 ml	15.5 ml	Ph. Eur., NF, JP
Sodium chloride and Sodium glycolate	max. 0.5 %	< 0.5 %*	Ph. Eur., NF, JP
Heavy metals	max. 10 ppm	< 10 ppm*	T CC 043 (CHP)
Arsenic	max. 2 ppm	< 2 ppm*	T CC 043 (CHP)
Residue of Methanol	max. 1.0 %	< 1.0 %*	T CC 019 (CHP)
Total aerobic microbial count	< 100 CFU / g	< 100 CFU / g*	Ph. Eur., USP
Fungi / molds and yeasts	< 20 CFU / g	< 20 CFU / g*	Ph. Eur., USP
E. coli, Pseudomonas aeruginosa	absent in 10 g	absent*	Ph. Eur., USP
Staph. aureus, Salmonella spec.	absent in 10 g	absent*	Ph. Eur., USP

* Results reported are expected results based on periodic testing.

The batch described by this certificate meets the requirements of Ph. Eur., NF and JP monographs for "Croscarmellose Sodium" current edition. It is released on the basis of the results ascertained.

The raw materials, manufacturing process, and product do not contain any of the solvents listed in the Residual Solvents (Ph. Eur.<5.4>, USP<467>) except for Methanol limited to max. 1.0%.

This product may contain raw materials derived from unauthorized genetically modified cotton and is not suitable for the production or marketing of food or dietary supplements in the EC.

Storage recommendation: **Protect from excessive heat and moisture. Keep containers closed.**

February 24, 2012
AB: 21144363
VSOL P09

Mathias Winkelmann
QUALITY CONTROL
CHP Carbohydrate Pirna

LAMPIRAN N

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 O

TABEL HARGA-HARGA KRITIS t

Tabel B. Tabel Harga-harga Kritis t*)

df	Tingkat signifikansi untuk tes satu-sisi					
	.10	.05	.025	.01	.005	.0005
	Tingkat signifikansi untuk tes dua-sisi					
	.20	.10	.05	.02	.01	.001
1	3.078	6.314	12.706	31.821	63.657	636.619
2	1.886	2.920	4.303	6.965	9.925	31.598
3	1.638	2.353	3.182	4.541	5.841	12.941
4	1.533	2.132	2.776	3.747	4.604	8.610
5	1.476	2.015	2.571	3.365	4.032	6.859
6	1.440	1.943	2.447	3.143	3.707	5.959
7	1.415	1.895	2.365	2.998	3.499	5.405
8	1.397	1.860	2.306	2.896	3.355	5.041
9	1.383	1.833	2.262	2.821	3.250	4.781
10	1.372	1.812	2.228	2.764	3.169	4.587
11	1.363	1.796	2.201	2.718	3.106	4.437
12	1.356	1.782	2.179	2.681	3.055	4.318
13	1.350	1.771	2.160	2.650	3.012	4.221
14	1.345	1.761	2.145	2.624	2.977	4.140
15	1.341	1.753	2.131	2.602	2.947	4.073
16	1.337	1.746	2.120	2.583	2.921	4.015
17	1.333	1.740	2.110	2.567	2.898	3.965
18	1.330	1.734	2.101	2.552	2.878	3.922
19	1.328	1.729	2.093	2.539	2.861	3.883
20	1.325	1.725	2.086	2.528	2.845	3.850
21	1.323	1.721	2.080	2.518	2.831	3.819
22	1.321	1.717	2.074	2.508	2.819	3.792
23	1.319	1.714	2.069	2.500	2.807	3.767
24	1.318	1.711	2.064	2.492	2.797	3.745
25	1.316	1.708	2.060	2.485	2.787	3.725
26	1.315	1.706	2.056	2.479	2.779	3.707
27	1.314	1.703	2.052	2.473	2.771	3.690
28	1.313	1.701	2.048	2.467	2.763	3.674
29	1.311	1.699	2.045	2.462	2.756	3.659
30	1.310	1.697	2.042	2.457	2.750	3.646
40	1.303	1.684	2.021	2.423	2.704	3.551
60	1.296	1.671	2.000	2.390	2.660	3.460
120	1.289	1.658	1.980	2.358	2.617	3.373
∞	1.282	1.645	1.960	2.326	2.576	3.291

*) Tabel B diringkaskan dari Tabel III dalam Fisher dan Yates: *Statistical tables for biological, agricultural, and medical, research*, diterbitkan oleh Oliver and Boyd Ltd. Edinburgh, dengan izin dari para penulis dan penerbit.