





Gambar 15. Ekstrak kering tomat (*Solanum lycopersicum*) L



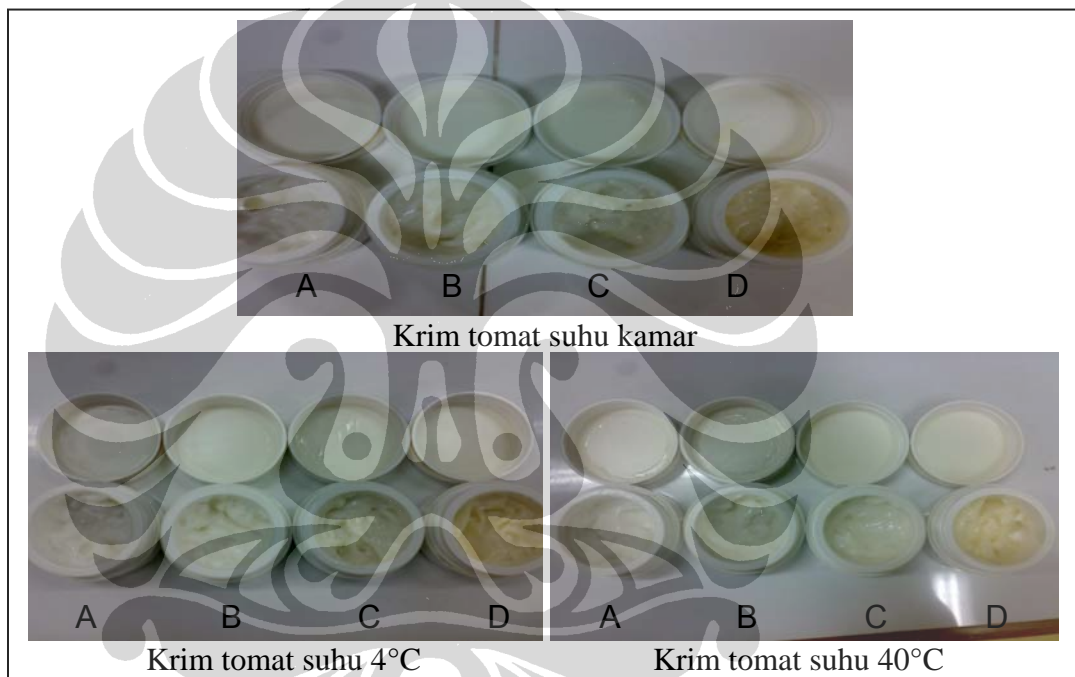
Tomat 0,5%

Tomat 1%

Tomat 2%

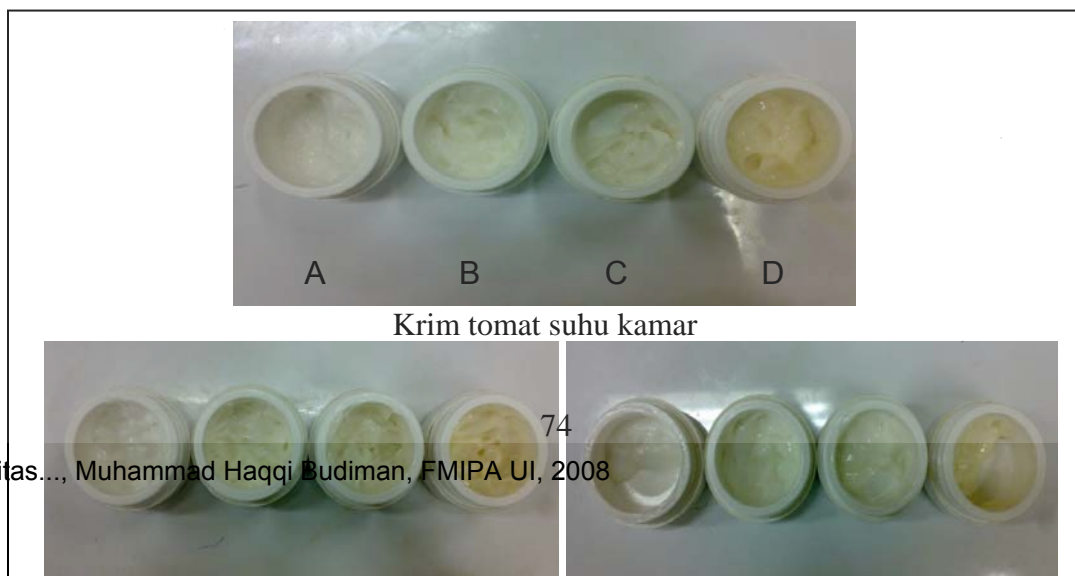
Tomat 3%

Gambar 16. Foto awal krim tomat pada konsentrasi 0,5%;
1%; 2%; dan 3%



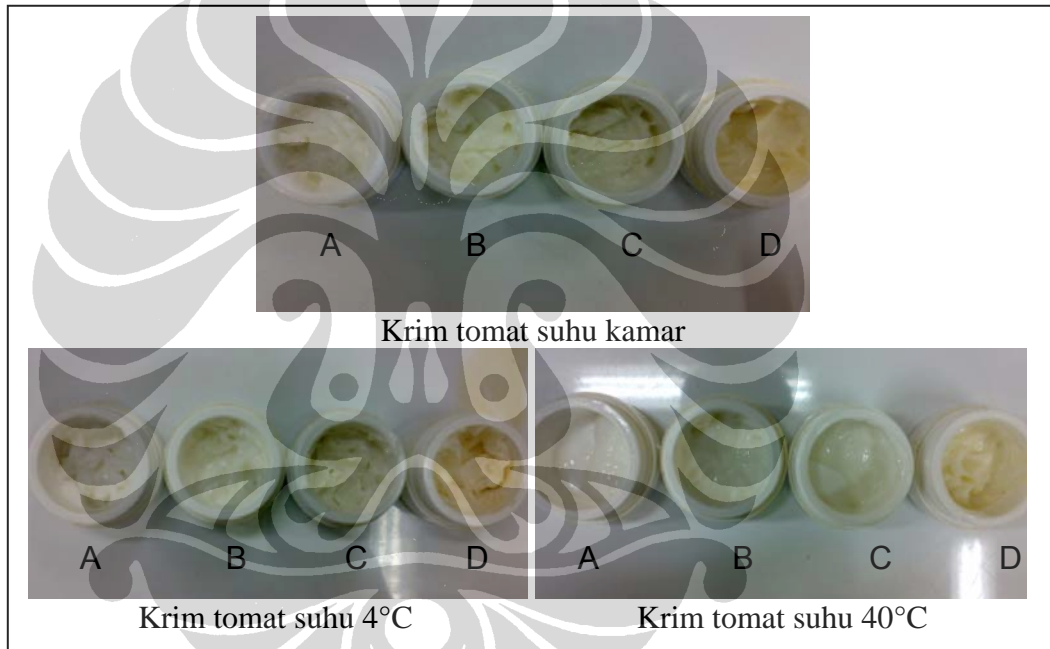
Gambar 17. Foto krim tomat uji stabilitas minggu ke-2,

A= 0,5%; B= 1%; C= 2%; dan D= 3%



A B C D A B C D

Gambar 18. Foto krim tomat uji stabilitas minggu ke-4,
A= 0,5%; B= 1%; C= 2%; dan D= 3%



Gambar 19. Foto krim tomat uji stabilitas minggu ke-6,
A= 0,5%; B= 1%; C= 2%; dan D= 3%

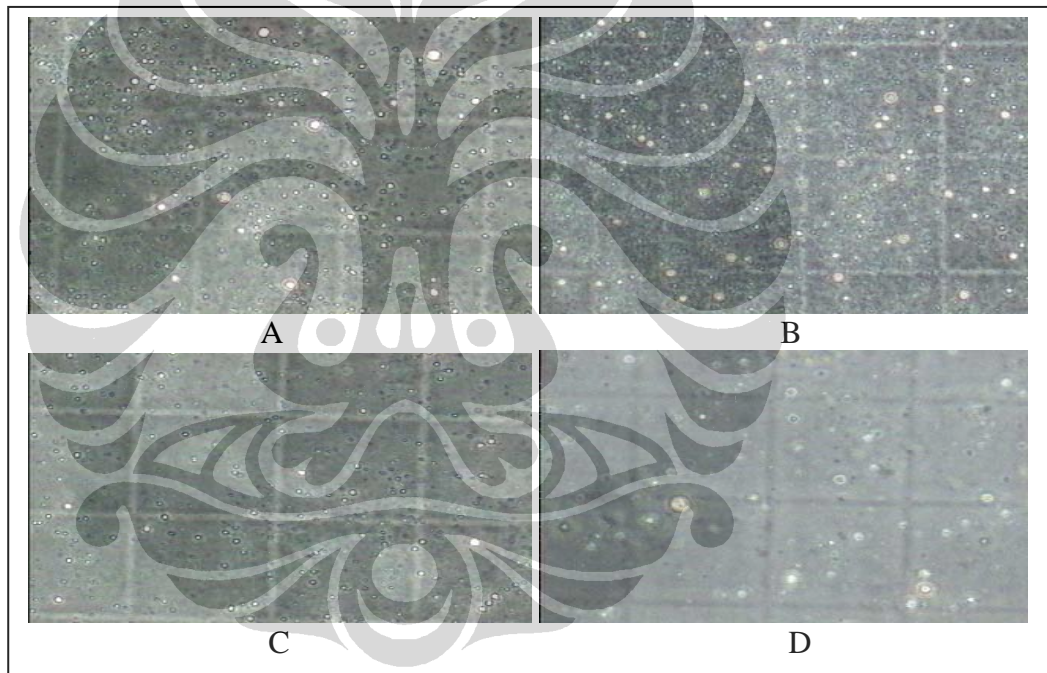


A B C D

A B C D A B C D

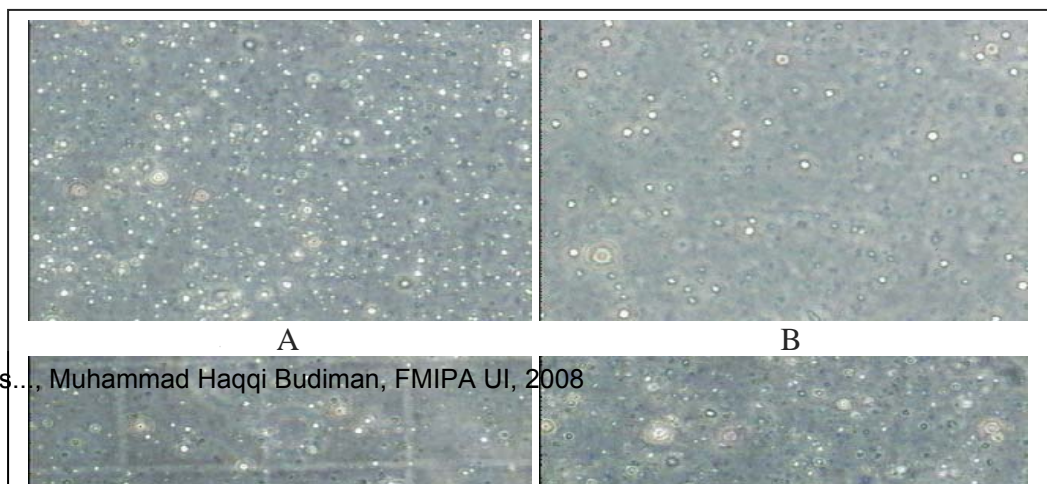
Gambar 20. Foto krim tomat uji stabilitas minggu ke-8,

A= 0,5%; B= 1%; C= 2%; dan D= 3%



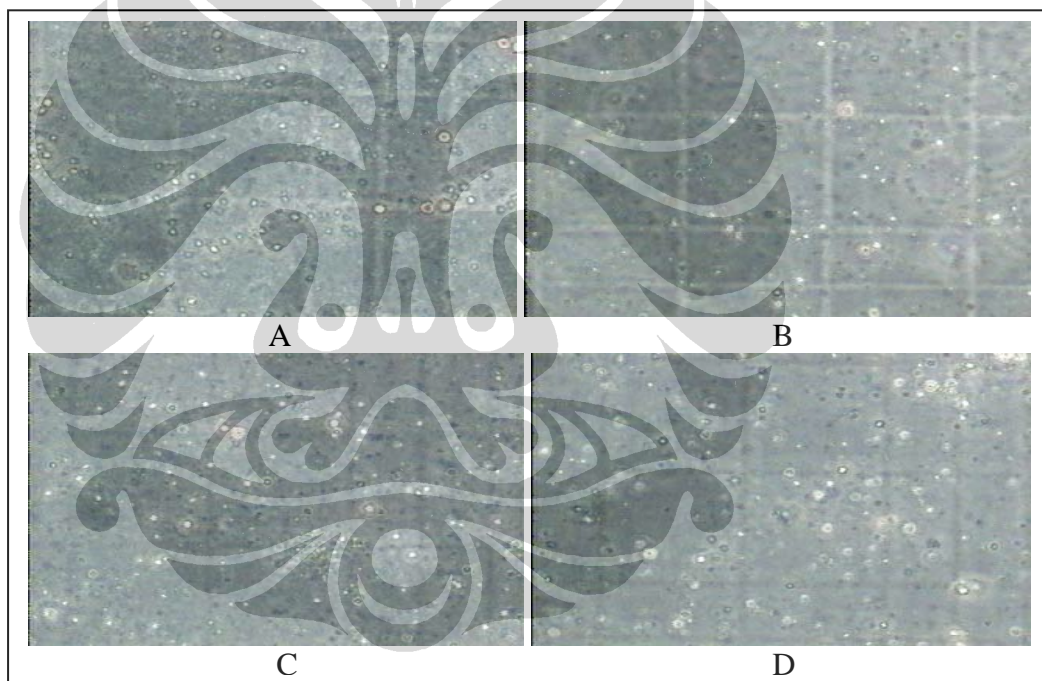
Gambar 21. Diameter globul awal krim, A= 0,5%; B= 1%;

C= 2%; dan D= 3%



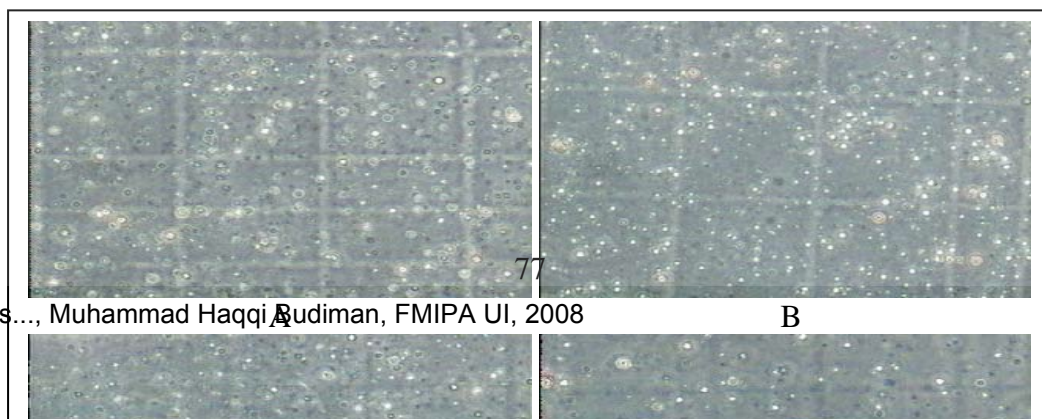
Gambar 22. Diameter globul krim minggu ke-2 pada suhu kamar

A= 0,5%; B= 1%; C= 2%; dan D= 3%



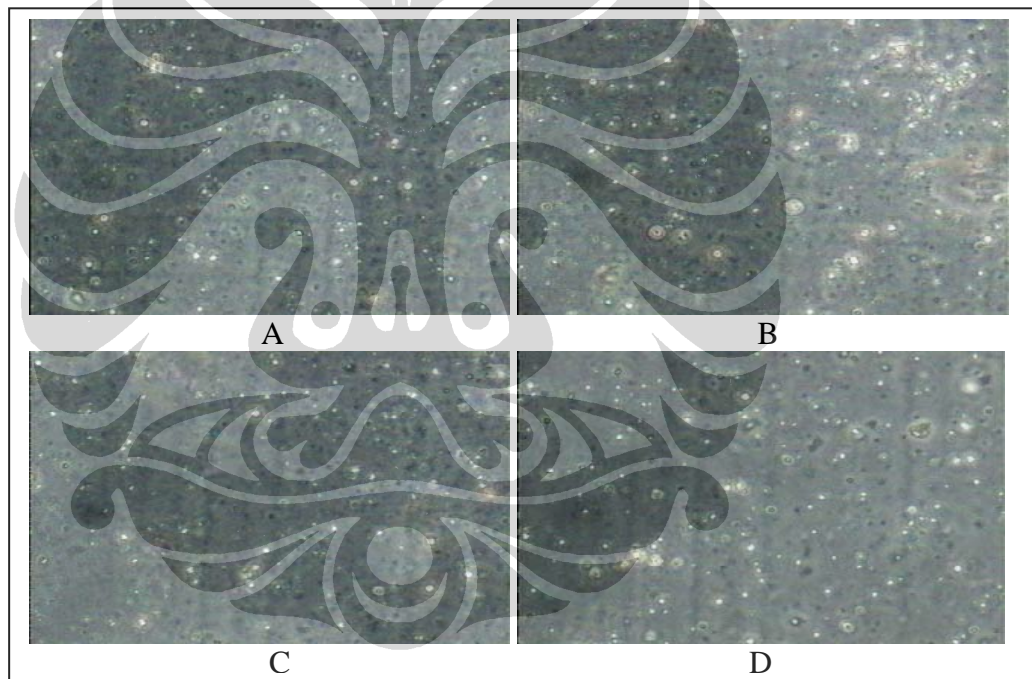
Gambar 23. Diameter globul krim minggu ke-2 pada suhu 4°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



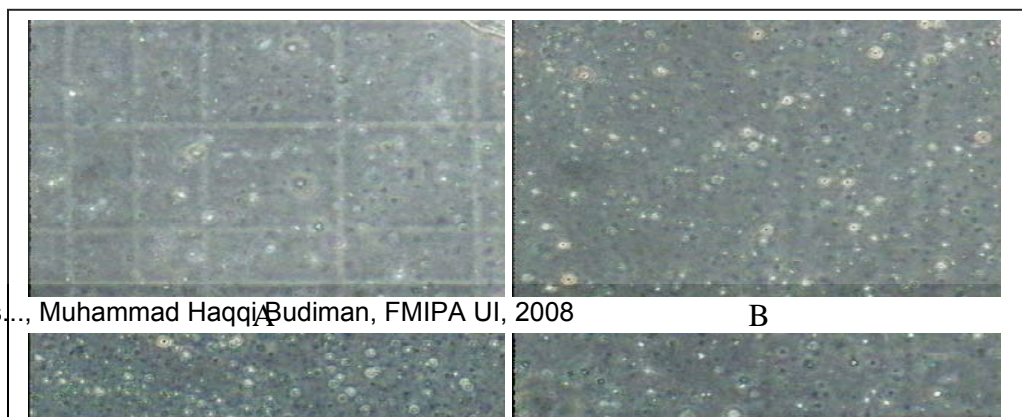
Gambar 24. Diameter globul krim minggu ke-2 pada suhu 40°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



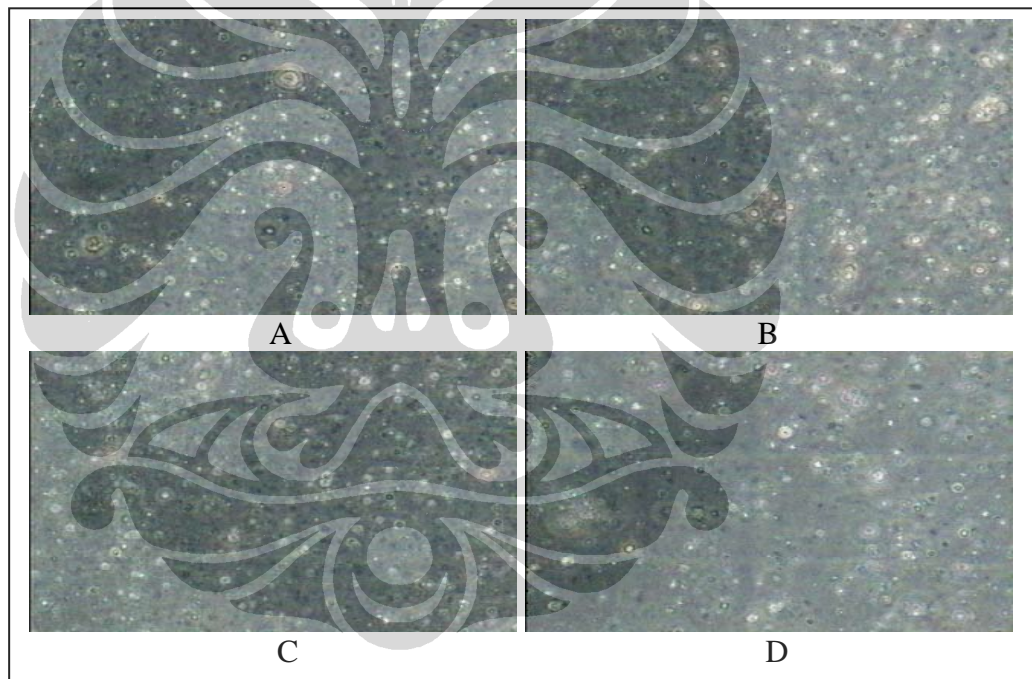
Gambar 25. Diameter globul krim minggu ke-4 pada suhu kamar

A= 0,5%; B= 1%; C= 2%; dan D= 3%



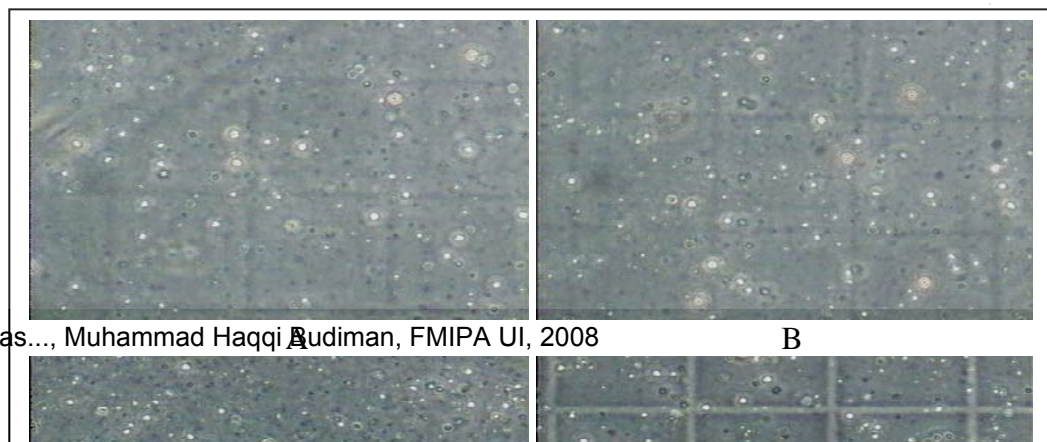
Gambar 26. Diameter globul krim minggu ke-4 pada suhu 4°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



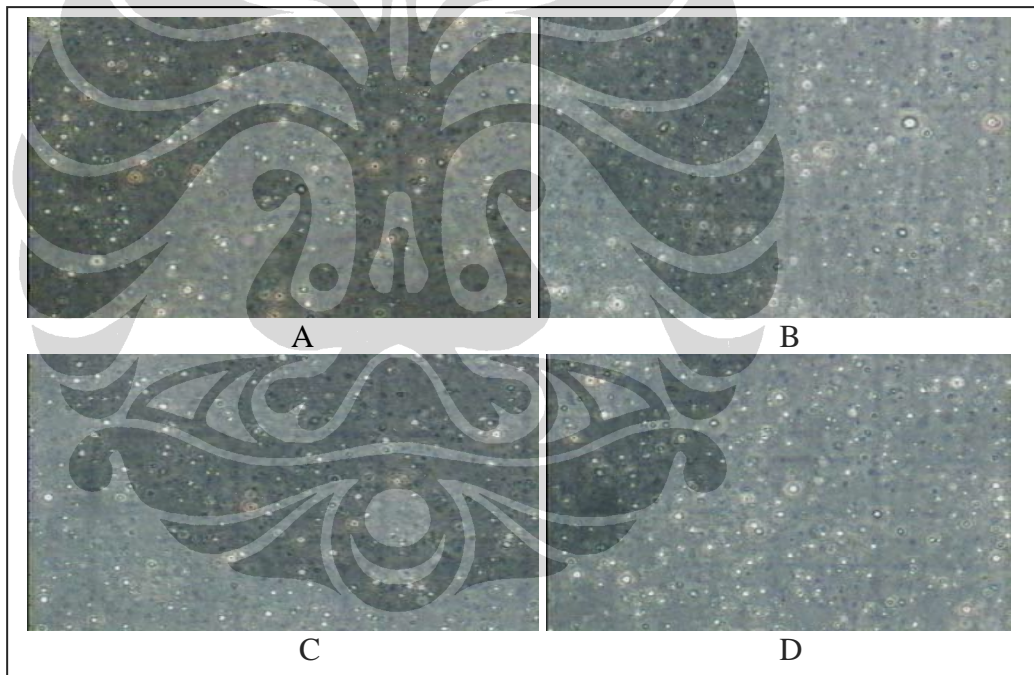
Gambar 27. Diameter globul krim minggu ke-4 pada suhu 40°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



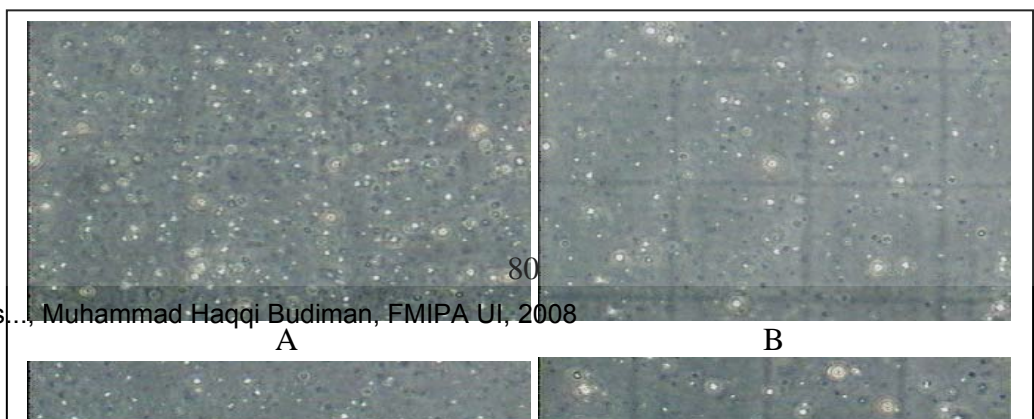
Gambar 28. Diameter globul krim minggu ke-6 pada suhu kamar

A= 0,5%; B= 1%; C= 2%; dan D= 3%



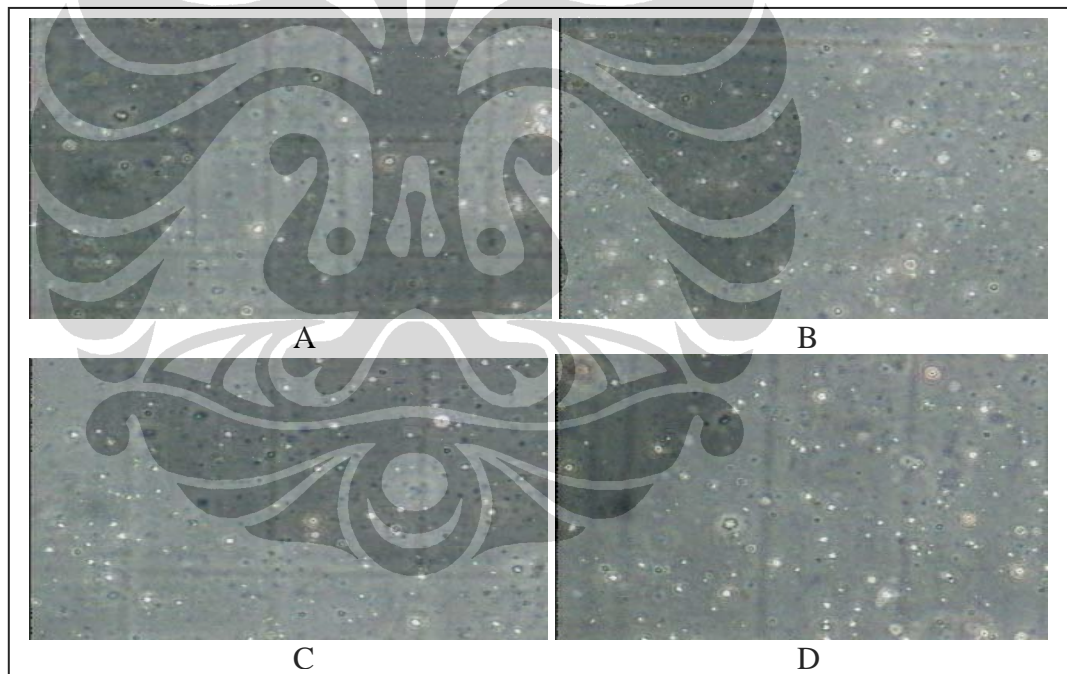
Gambar 29. Diameter globul krim minggu ke-6 pada suhu 4°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



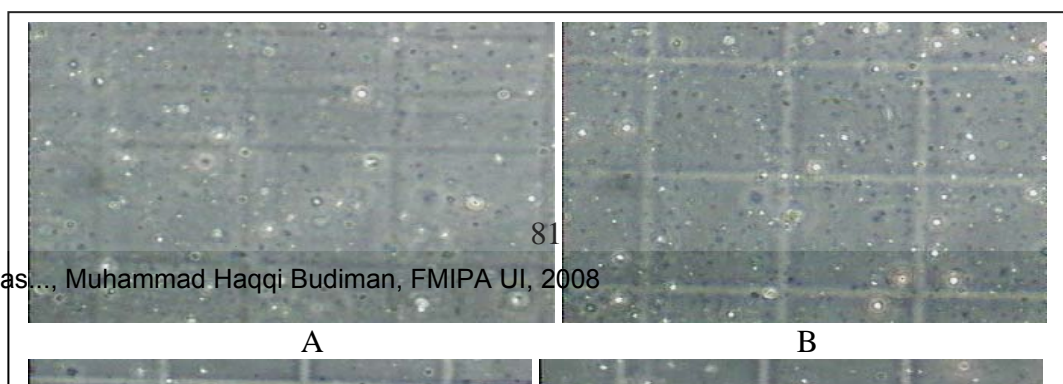
Gambar 30. Diameter globul krim minggu ke-6 pada suhu 40°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



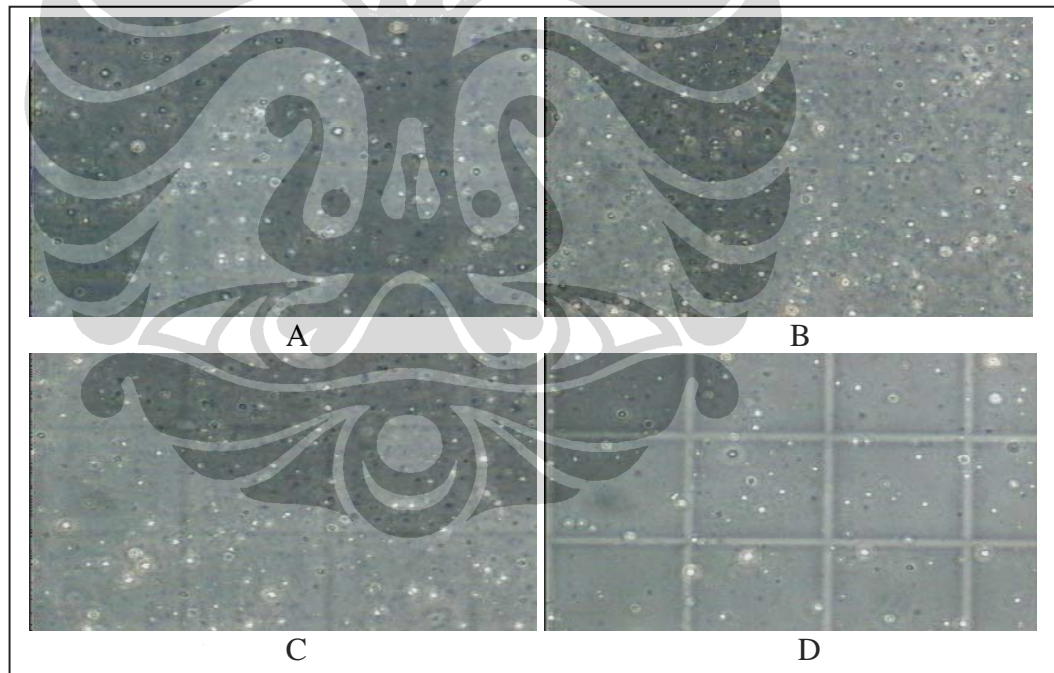
Gambar 31. Diameter globul krim minggu ke-8 pada suhu kamar

A= 0,5%; B= 1%; C= 2%; dan D= 3%



Gambar 32. Diameter globul krim minggu ke-8 pada suhu 4°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



Gambar 33. Diameter globul krim minggu ke-8 pada suhu 40°C

A= 0,5%; B= 1%; C= 2%; dan D= 3%



(a)



(b)



(c)

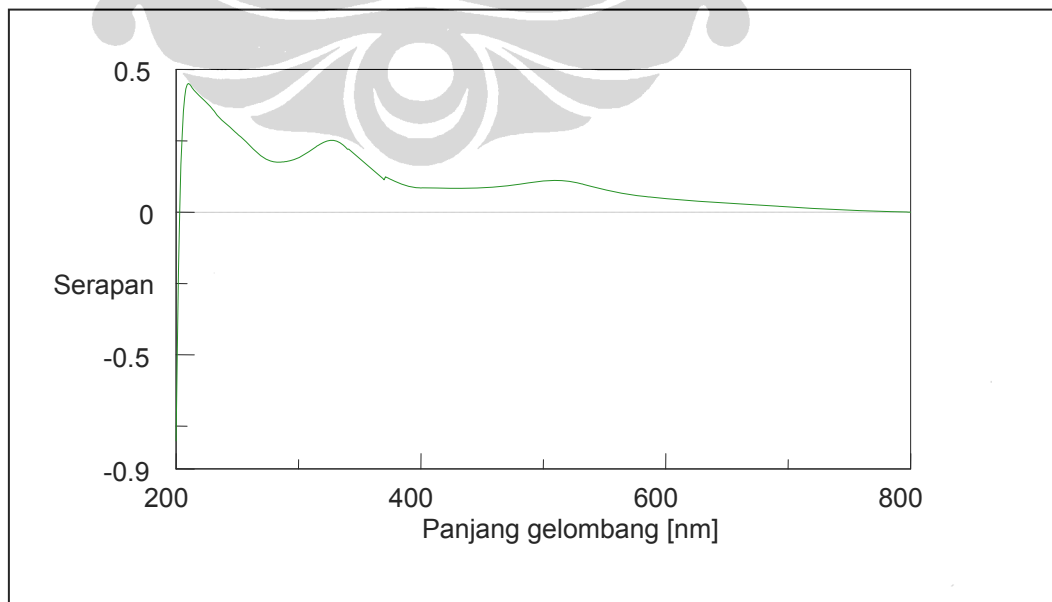


(d)



(e)

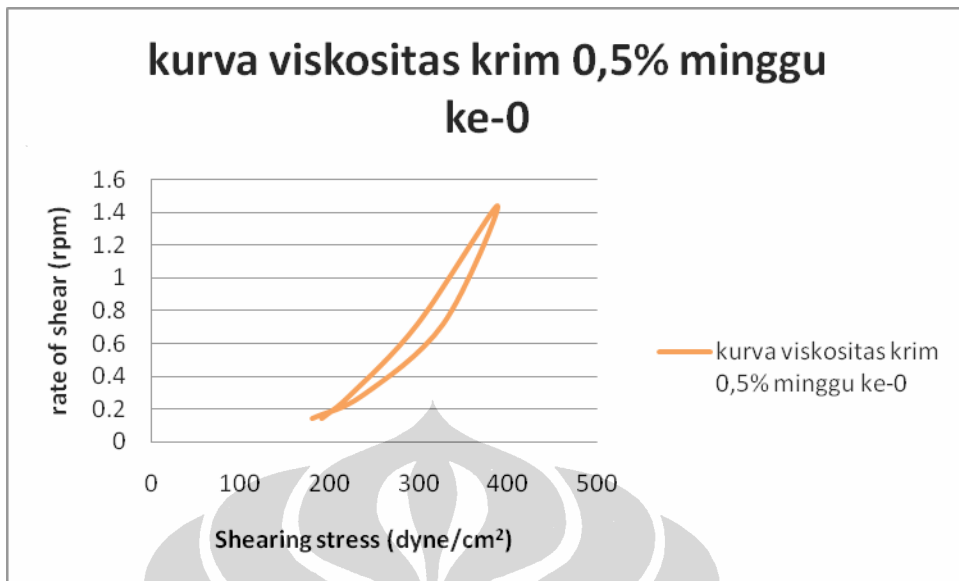
Gambar 34. Foto alat-alat yang digunakan: (a) Homogenizer; (b) Viskometer Brookfield; (c) Sentrifugator; (d) pH meter; (e) Spektrofotometer UV-Vis;



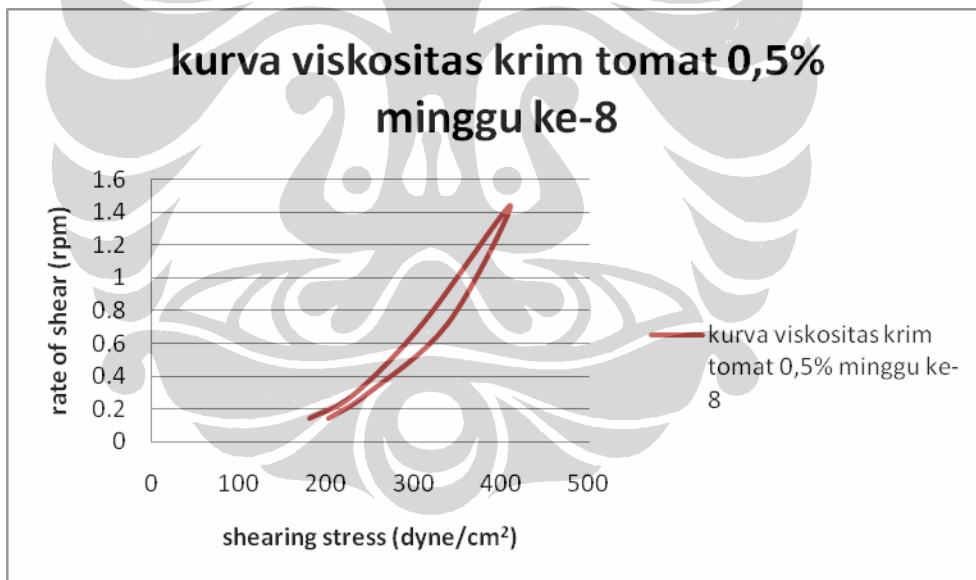
Gambar 35. Kurva serapan larutan DPPH dengan Spektrofotometer UV-Vis



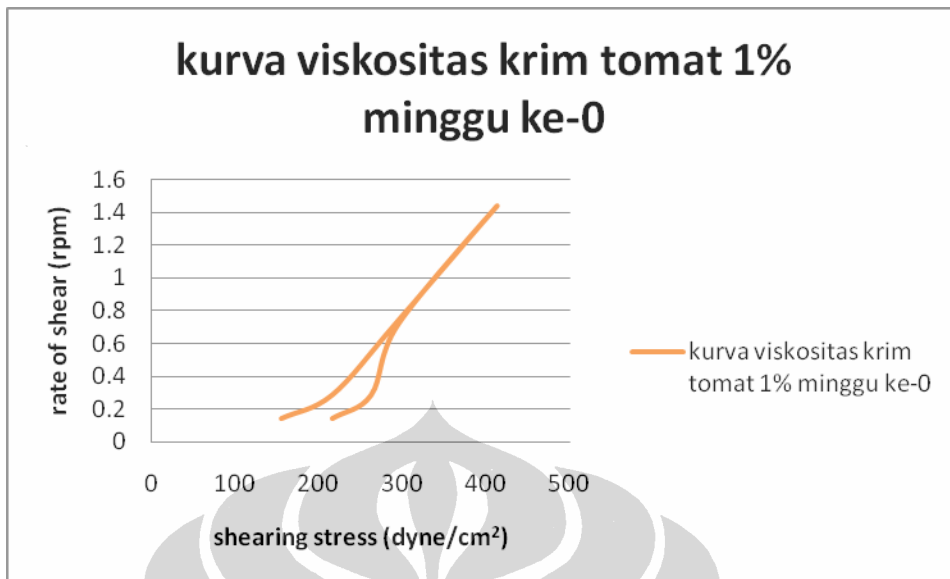
Gambar 36. Foto uji aktivitas antioksidan metode peredaman DPPH secara kualitatif



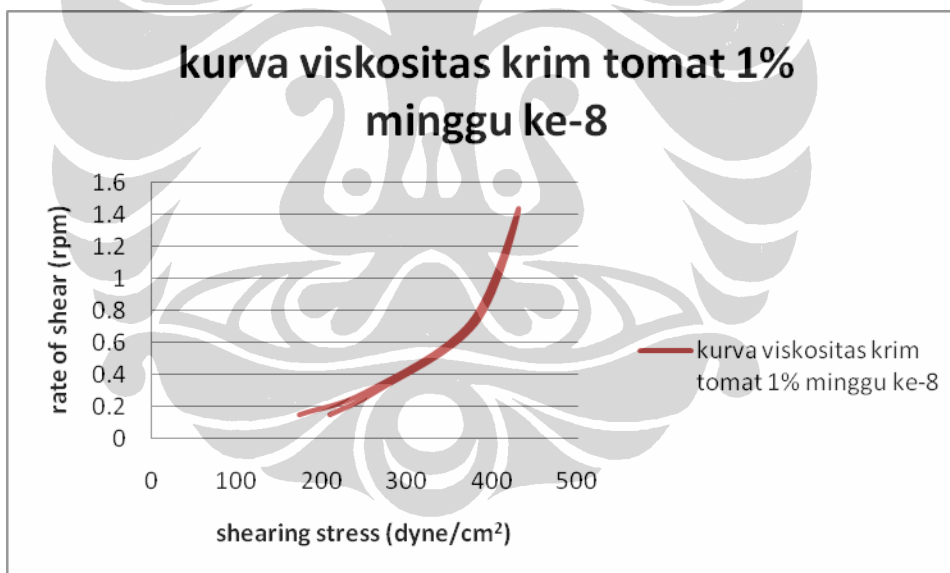
Gambar 37. Kurva viskositas krim tomat 0,5% minggu ke-0



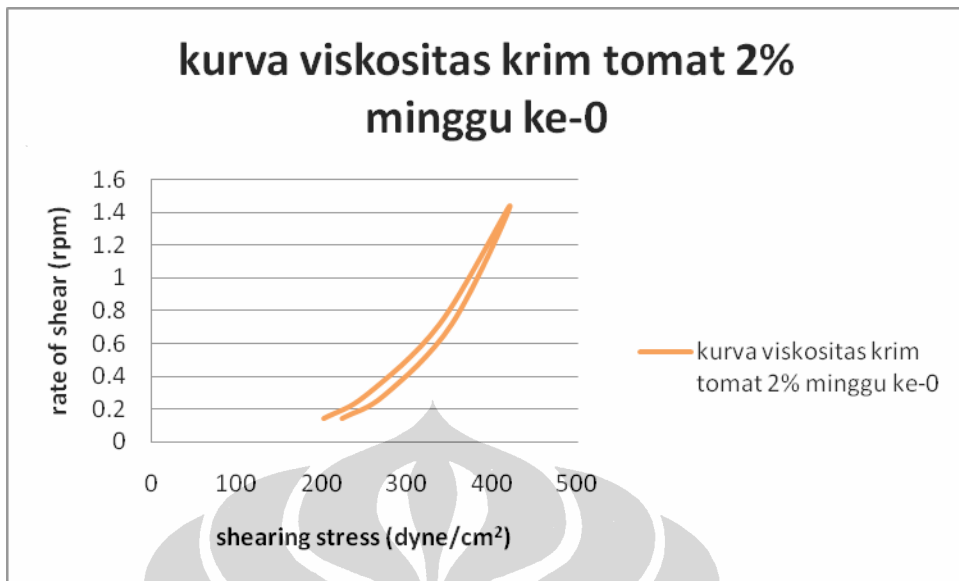
Gambar 38. Kurva viskositas krim tomat 0,5% minggu ke-8



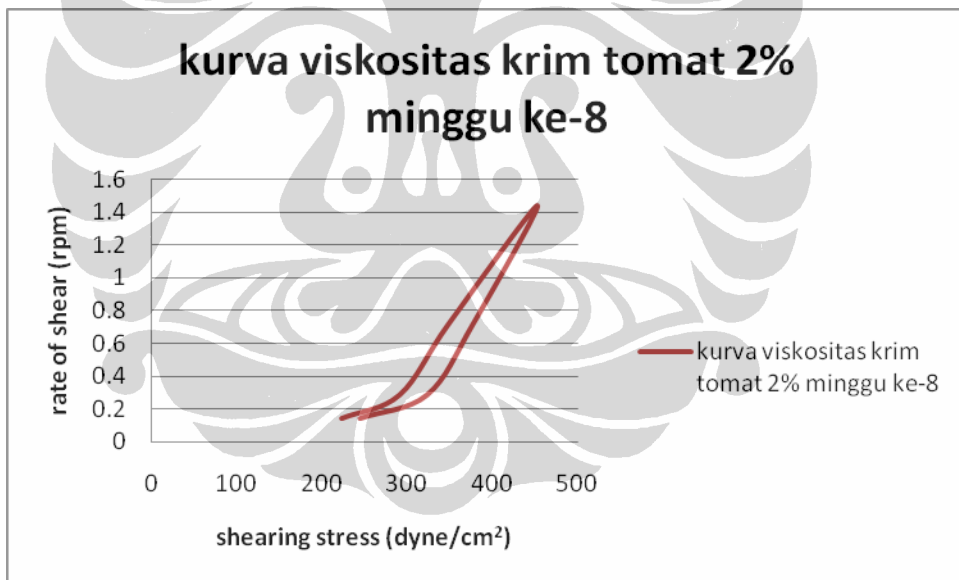
Gambar 39. Kurva viskositas krim tomat 1% minggu ke-0



Gambar 40. Kurva sifat alir krim tomat 1% minggu ke-8



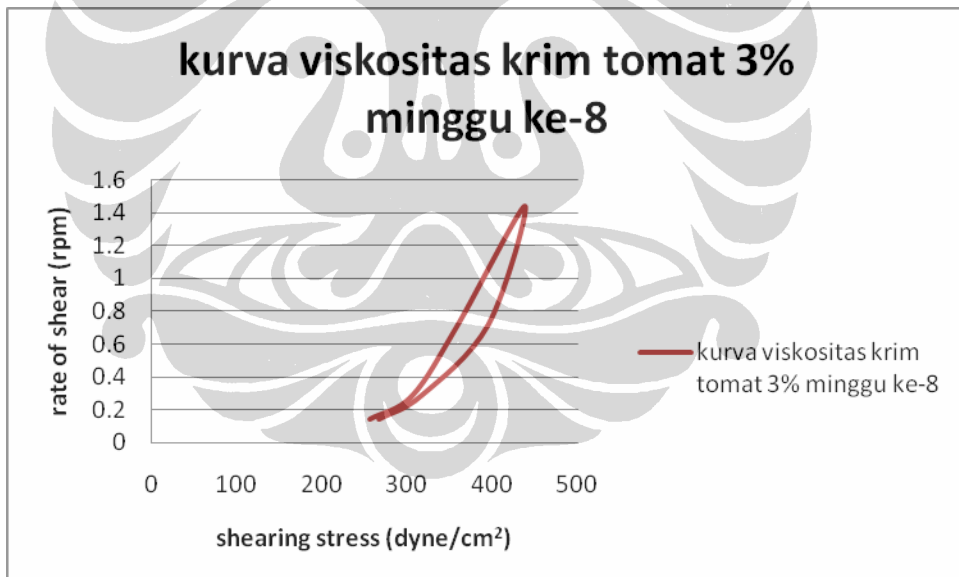
Gambar 41. Kurva viskositas krim tomat 2% minggu ke-0



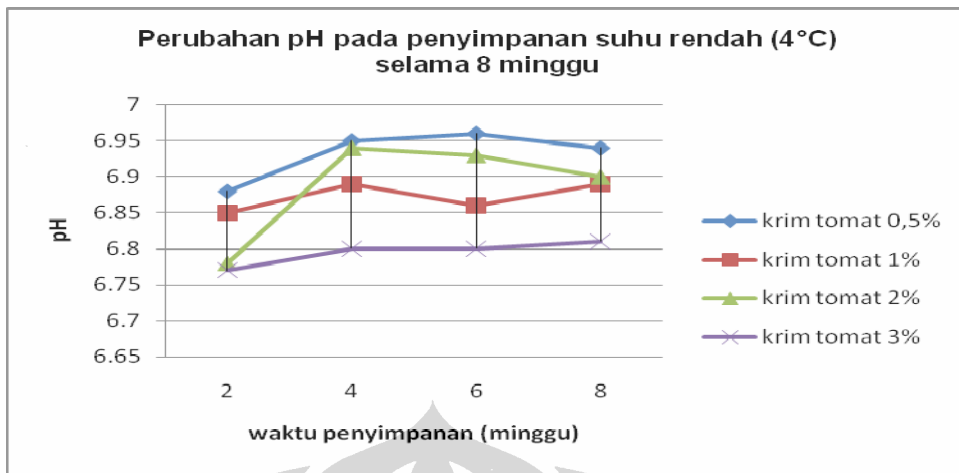
Gambar 42. Kurva viskositas krim tomat 2% minggu ke-8



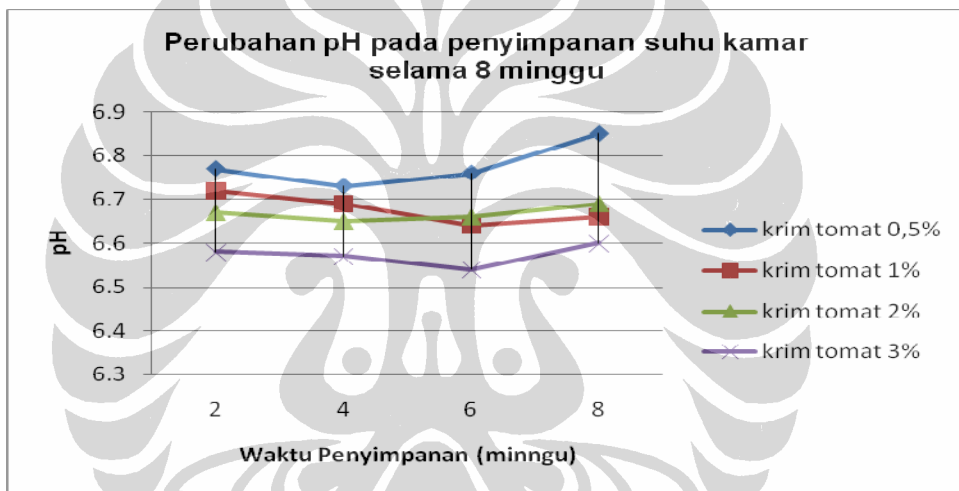
Gambar 43. Kurva viskositas krim tomat 3% minggu ke-0



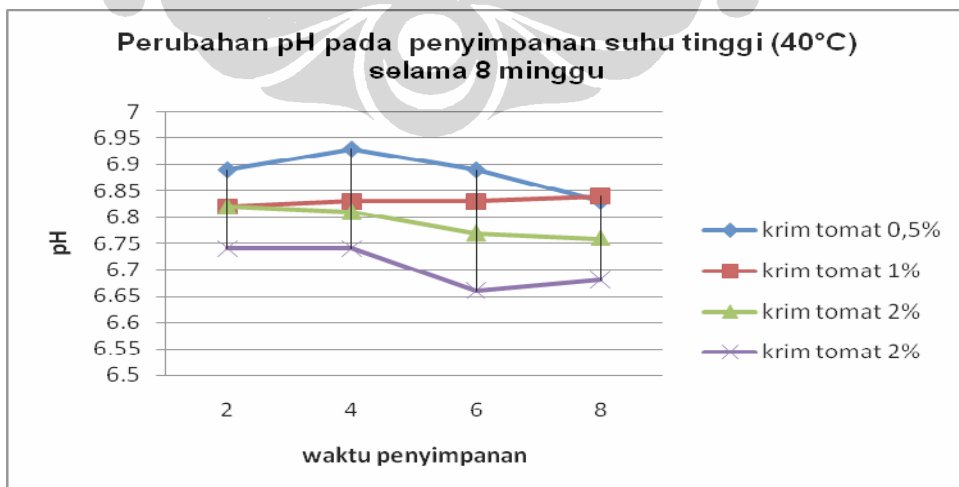
Gambar 44. Kurva viskositas krim tomat 3% minggu ke-8



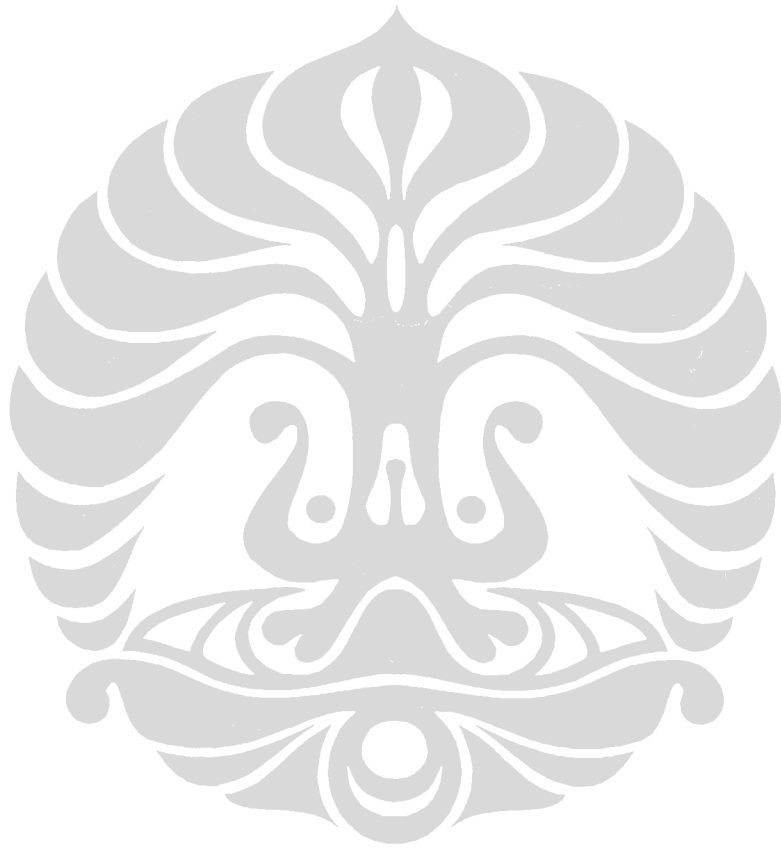
Gambar 45. Kurva perubahan pH pada penyimpanan suhu rendah 4°C

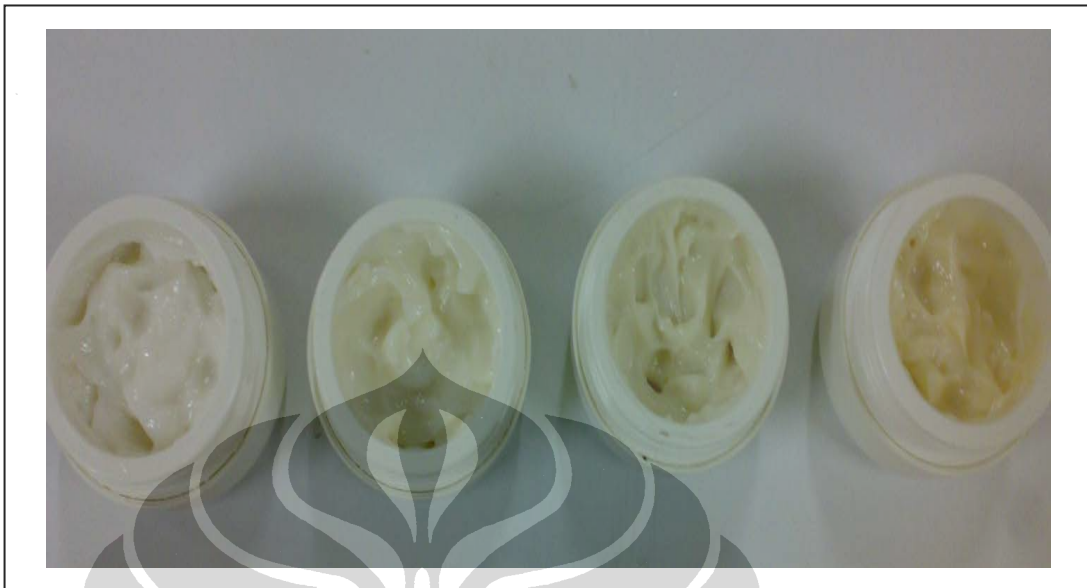


Gambar 46. Kurva perubahan pH pada penyimpanan suhu kamar



Gambar 47. Kurva perubahan pH pada penyimpanan suhu tinggi (40°C)





Gambar 48. Foto hasil tomat 0,5%, 1%, 2%, dan 3% setelah *cycling test*



Gambar 49. Foto hasil tomat 0,5%, 1%, 2%, dan 3% setelah uji mek

Tabel 2
 Hasil evaluasi krim dengan kadar ekstrak tomat 0,5%, 1%, 2%, dan 3%

Krim	Warna	Homogenitas	pH	Viskositas	Diameter Globul
Tomat 0,5%	Putih +++	Homogen	6,85	140.000 cps	1,6725 μm
Tomat 1%	Putih-jingga ++	Homogen	6,80	150.000 cps	1,6121 μm
Tomat 2%	Putih-coklat +++	Homogen	6,76	155.000 cps	1,6576 μm
Tomat 3%	Jingga-coklat ++	Homogen	6,73	165.000 cps	1,5509 μm

Tabel 3
 Nilai Viskositas krim awal pada berbagai kecepatan (rpm)

Krim	Spindel	Kecepatan (rpm)	Dial Reading (dr)	Faktor koreksi	Viskositas $\eta = dr \times f$ (cps)	Shearing Stress $F/A = dr \times 7,187$ (dyne/cm ²)	Rate of Share $dv/dr = F/A \times 1/\eta$
Tomat 0,5%	6	2	28	5000	140000	179,675	0,14374
		4	33	2500	82500	237,171	0,28748
		10	45,5	1000	45500	327,008	0,7187
		20	54	500	27000	388,098	1,4374
		10	41,5	1000	41500	298,26	0,7187
		4	31	2500	77500	222,797	0,28748
		2	26,5	5000	132500	190,455	0,14374
Tomat 1%	6	2	30	5000	150000	215,61	0,14374
		4	36,5	2500	91250	262,325	0,28748
		10	41	1000	41000	294,667	0,7187
		20	57,5	500	28750	413,252	1,4374
		10	40,5	1000	40500	291,073	0,7187
		4	30	2500	75000	215,61	0,28748
		2	21,5	5000	107500	154,520	0,14374

Tabel 3 (lanjutan)
 Nilai Viskositas krim awal pada berbagai kecepatan (rpm)

Krim	Spindel	Kecepatan (rpm)	Dial Reading (dr)	Faktor koreksi	Viskositas $\eta = dr \times f$ (cps)	Shearing Stress $F/A = dr \times 7,187$ (dyne/cm ²)	Rate of Share $dv/dr = F/A \times 1/\eta$
Tomat 2%	6	2	31	5000	155000	222,797	0,14374
		4	38	2500	87500	273,106	0,28748
		10	49	1000	47000	352,163	0,7187
		20	58,5	500	29250	420,439	1,4374
		10	47	1000	49000	337,789	0,7187
		4	35	2500	95000	251,545	0,28748
		2	28	5000	155000	201,236	0,14374
Tomat 3%	6	2	32	5000	165000	229,984	0,14374
		4	38	2500	92500	273,106	0,28748
		10	56	1000	52000	402,472	0,7187
		20	66,5	500	33250	477,935	1,4374
		10	52	1000	56000	373,724	0,7187
		4	37	2500	95000	265,919	0,28748
		2	31	5000	160000	222,797	0,14374

Tabel 4
 Nilai Viskositas krim akhir pada berbagai kecepatan (rpm)

Krim	Spindel	Kecepatan (rpm)	Dial Reading (dr)	Faktor koreksi	Viskositas $\eta = dr \times f$ (cps)	Shearing Stress $F/A = dr \times 7,187$ (dyne/cm ²)	Rate of Share $dv/dr = F/A \times 1/\eta$
Tomat 0,5%	6	2	28	5000	140000	201,236	0,14374
		4	34	2500	85000	244,358	0,28748
		10	47	1000	47000	337,789	0,7187
		20	57	500	28500	409,659	1,4374
		10	43	1000	43000	309,041	0,7187
		4	32	2500	80000	229,984	0,28748
		2	25	5000	125000	179,675	0,14374
		2	29	5000	145000	208,423	0,14374
Tomat 1%	6	4	36,5	2500	87500	262,325	0,28748
		10	53	1000	52000	380,911	0,7187
		20	60	500	30000	431,22	1,4374
		10	52	1000	53000	373,724	0,7187
		4	35	2500	91250	251,545	0,28748
		2	24	5000	120000	172,488	0,14374

Tabel 4 (lanjutan)
 Nilai Viskositas krim akhir pada berbagai kecepatan (rpm)

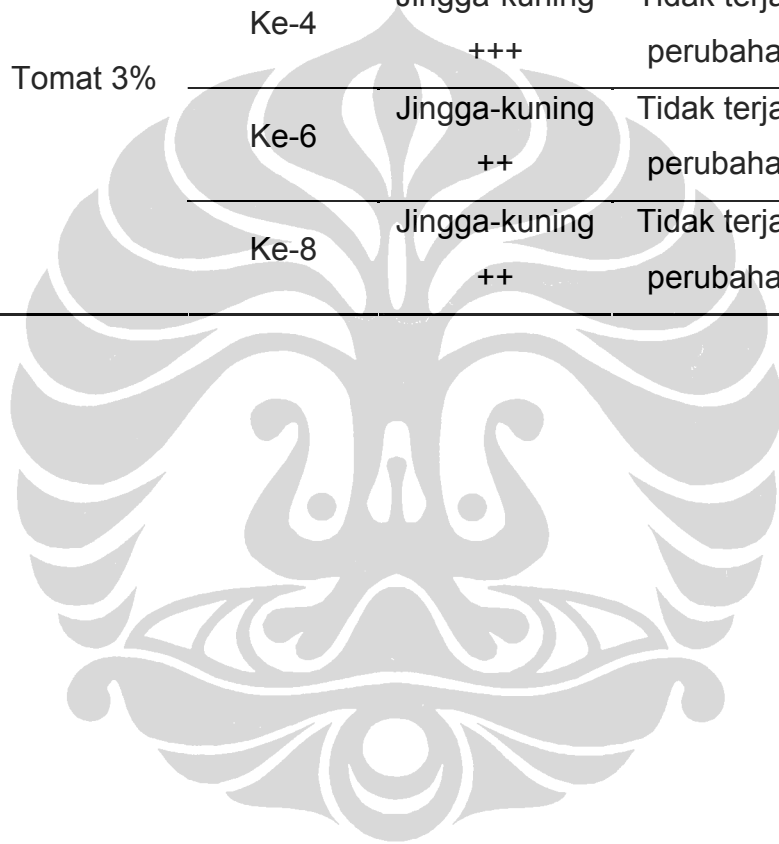
Krim	Spindel	Kecepatan (rpm)	Dial Reading (dr)	Faktor koreksi	Viskositas $\eta = dr \times f$ (cps)	Shearing Stress $F/A = dr \times 7,187$ (dyne/cm ²)	Rate of Share $dv/dr = F/A \times 1/\eta$
Tomat 2%	6	2	34	5000	155000	244,358	0,14374
		4	45	2500	95000	323,415	0,28748
		10	52,5	1000	52500	377,317	0,7187
		20	63	500	31500	452,781	1,4374
		10	48,5	1000	48500	348,569	0,7187
		4	40,5	2500	112500	291,073	0,28748
		2	31	5000	170000	222,797	0,14374
		2	37	5000	177500	265,919	0,14374
Tomat 3%	6	4	44	2500	106250	316,228	0,28748
		10	55	1000	50000	395,285	0,7187
		20	61	500	30500	438,407	1,4374
		10	50	1000	55000	359,380	0,7187
		4	42,5	2500	97500	305,447	0,28748
		2	35,5	5000	160000	255.138	0,14374

Tabel 5
Pengamatan organoleptis sampel krim pada suhu rendah ($4\pm 2^{\circ}\text{C}$) selama 8 minggu

Krim	Minggu	Pengamatan		
		Warna	Bau	Homogenitas
Tomat 0,5%	Ke-2	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-4	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih +++++	Tidak terjadi perubahan	Homogen
Tomat 1%	Ke-2	Putih-kuning +	Tidak terjadi perubahan	Homogen
	Ke-4	Putih-kuning ++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih-kuning +++	Tidak terjadi perubahan	Homogen
Tomat 2%	Ke-2	Putih-kuning ++	Tidak terjadi perubahan	Homogen
	Ke-4	Putih-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih-kuning +++	Tidak terjadi perubahan	Homogen

Tabel 5
Lanjutan

Krim	Minggu	Pengamatan		
		Warna	Bau	Homogenitas
Tomat 3%	Ke-2	Jingga-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-4	Jingga-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-6	Jingga-kuning ++	Tidak terjadi perubahan	Homogen
	Ke-8	Jingga-kuning ++	Tidak terjadi perubahan	Homogen

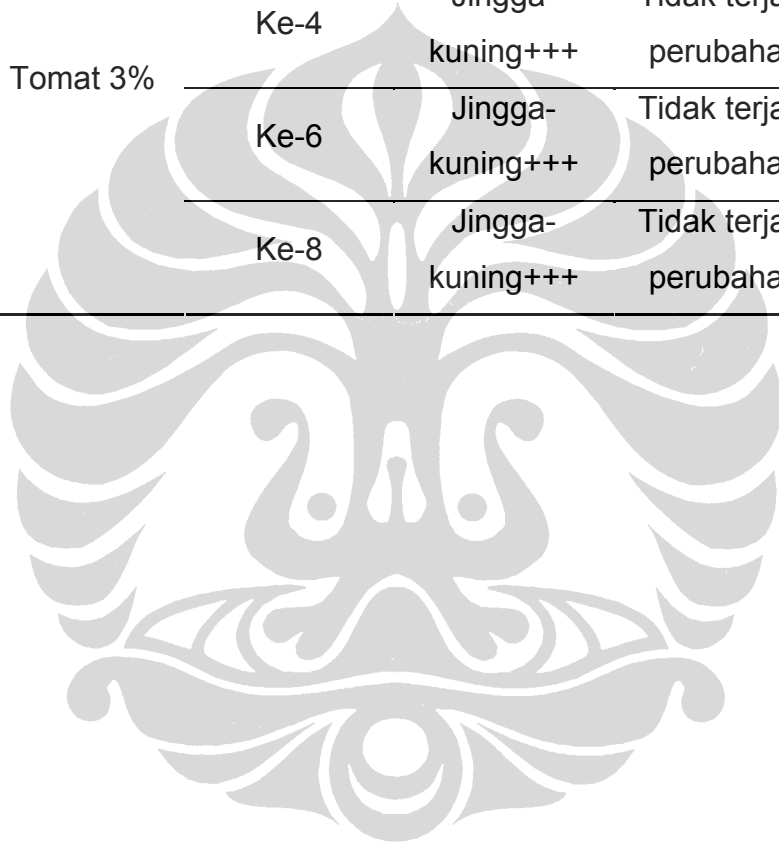


Tabel 6
Pengamatan organoleptis sampel krim pada suhu kamar (27-30°C)
selama 8 minggu

Krim	Minggu	Pengamatan		
		Warna	Bau	Homogenitas
Tomat 0,5%	Ke-2	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-4	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih +++++	Tidak terjadi perubahan	Homogen
Tomat 1%	Ke-2	Putih-kuning +	Tidak terjadi perubahan	Homogen
	Ke-4	Putih-kuning ++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih-kuning ++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih-kuning +++	Tidak terjadi perubahan	Homogen
Tomat 2%	Ke-2	Putih-kuning +	Tidak terjadi perubahan	Homogen
	Ke-4	Putih-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih-kuning +++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih-kuning ++++	Tidak terjadi perubahan	Homogen

Tabel 6
Lanjutan

Krim	Minggu	Pengamatan		
		Warna	Bau	Homogenitas
Tomat 3%	Ke-2	Jingga-kuning+++	Tidak terjadi perubahan	Homogen
	Ke-4	Jingga-kuning+++	Tidak terjadi perubahan	Homogen
	Ke-6	Jingga-kuning+++	Tidak terjadi perubahan	Homogen
	Ke-8	Jingga-kuning+++	Tidak terjadi perubahan	Homogen



Tabel 7
Pengamatan organoleptis sampel krim pada suhu tinggi ($40 \pm 2^\circ\text{C}$) selama 8 minggu

Krim	Minggu	Pengamatan		
		Warna	Bau	Homogenitas
Tomat 0,5%	Ke-2	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-4	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih +++++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih +++++	Tidak terjadi perubahan	Homogen
Tomat 1%	Ke-2	Putih-kuning +	Tidak terjadi perubahan	Homogen
	Ke-4	Putih-kuning ++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih-kecoklatan +	Tidak terjadi perubahan	Homogen
	Ke-8	Putih-kecoklatan ++	Tidak terjadi perubahan	Homogen
Tomat 2%	Ke-2	Putih kuning +	Tidak terjadi perubahan	Homogen
	Ke-4	Putih kuning +++	Tidak terjadi perubahan	Homogen
	Ke-6	Putih kuning +++	Tidak terjadi perubahan	Homogen
	Ke-8	Putih-kuning ++++	Tidak terjadi perubahan	Homogen

Tabel 7
Lanjutan

Krim	Minggu	Pengamatan		
		Warna	Bau	Homogenitas
Tomat 3%	Ke-2	Kuning krem +++	Tidak terjadi perubahan	Homogen
	Ke-4	Kuning krem +++	Tidak terjadi perubahan	Homogen
	Ke-6	Kuning krem ++	Tidak terjadi perubahan	Homogen
	Ke-8	Kuning krem ++	Tidak terjadi perubahan	Homogen

Tabel 8

Pengukuran pH dan diameter globul pada penyimpanan suhu 4°C, suhu kamar, dan suhu 40°C selama 8 minggu

Krim	Suhu	Minggu ke-2		Minggu ke-4		Minggu ke-6		Minggu ke-8	
		pH	d(μm)	pH	d(μm)	pH	d(μm)	pH	d(μm)
Tomat 0,5%	4°C	6,88	1,9204	6,95	1,966	6,96	2,043	6,94	1,603
	Kamar	6,77	1,816	6,73	1,872	6,76	2,119	6,85	2,007
	40°C	6,89	1,7851	6,93	1,782	6,89	1,919	6,83	1,964
Tomat 1%	4°C	6,85	1,8468	6,89	1,852	6,86	1,831	6,89	2,034
	Kamar	6,72	1,8061	6,69	1,806	6,64	1,993	6,66	1,770
	40°C	6,82	1,7307	6,83	1,872	6,83	1,875	6,84	1,833
Tomat 2%	4°C	6,78	1,715	6,94	1,912	6,93	1,841	6,90	1,779
	Kamar	6,67	1,789	6,65	1,689	6,66	2,041	6,69	1,695
	40°C	6,82	1,872	6,81	1,872	6,77	1,877	6,76	1,928
Tomat 3%	4°C	6,77	1,785	6,80	1,811	6,80	1,952	6,81	2,002
	Kamar	6,58	1,8728	6,57	1,816	6,54	2,060	6,60	1,839
	40°C	6,74	1,8888	6,74	2,157	6,66	1,906	6,68	1,943

Tabel 9
Cycling test

Krim	Pengamatan		
	Awal	Siklus ke-6	
	Warna	Warna	Pemisahan fase
Tomat 0,5%	Putih +++++	Putih +++++	Tidak terjadi pemisahan
Tomat 1%	Putih kuning ++	Putih kuning ++	Tidak terjadi pemisahan
Tomat 2%	Putih kuning +++	Putih kuning +++	Tidak terjadi pemisahan
Tomat 3%	Kuning krem ++	Kuning krem ++	Tidak terjadi pemisahan

Tabel 10
Uji mekanik (Uji Sentrifugasi)

Krim	Awal	Akhir
Tomat 0,5%	Tidak terjadi pemisahan	Tidak terjadi pemisahan
Tomat 1%	Tidak terjadi pemisahan	Tidak terjadi pemisahan
Tomat 2%	Tidak terjadi pemisahan	Tidak terjadi pemisahan
Tomat 3%	Tidak terjadi pemisahan	Tidak terjadi pemisahan

Tabel 11

Pengukuran aktivitas antioksidan krim tomat 0,5%,1%, 2% dan 3% pada minggu ke-0 dengan metode DPPH (kuantitatif) secara spektrofotometer UV-Vis

Krim	Serapan (A)	%peredaman (EC50)
Krim tomat 0,5%	0,0694	36,58
Krim tomat 1%	0,0427	60,98
Krim tomat 2%	0,0348	68,20
Krim tomat 3%	0,0292	73,33
Krim vitamin C 0,5%	0,0474	62,20

Tabel 12

Pengukuran aktivitas antioksidan krim tomat 0,5%,1%, 2% dan 3% pada minggu ke-8 setelah penyimpanan pada suhu kamar dengan metode DPPH (kuantitatif) secara spektrofotometer UV-Vis

Krim	Serapan (A)	%peredaman (EC50)
Krim tomat 0,5%	0,0862	21,23
Krim tomat 1%	0,0616	43,71
Krim tomat 2%	0,0548	49,92
Krim tomat 3%	0,0369	66,28

Lampiran 1

Perhitungan basis

Perhitungan basis untuk masing-masing konsentrasi krim tomat:

1. Krim tomat 0,5% = 100 % basis krim– (0,18% metil paraben+0,02 propil paraben+ 0,5% ekstrak tomat)
= 99,3%
2. Krim tomat 1% = 100 % basis krim– (0,18% metal paraben+0,02 propil paraben+ 1% ekstrak tomat)
= 98,8%
3. Krim tomat 2% = 100 % basis krim– (0,18% metil paraben+0,02 propil paraben+ 2% ekstrak tomat)
= 97,8%
4. Krim tomat 3% = 100 % basis krim– (0,18% metil paraben+0,02 propil paraben+ 3% ekstrak tomat)
= 96,8%

Lampiran 2

Tomat 0,5% ,t = minggu ke-0, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,7006-1,0545	1,1536	30	34,6080
2.	1,0546-1,4085	1,2315	90	110,835
3.	1,4086-1,7625	1,5855	72	114,156
4.	1,7626-2,1165	1,9395	42	81,459
5.	2,1166-2,4705	2,2935	12	27,522
6.	2,4706-2,8245	2,6475	30	79,425
7.	2,8246-3,1785	3,0015	12	36,0168
8.	3,1786-3,5325	3,3555	-	-
9.	3,5326-3,8865	3,7095	6	22,857
Jumlah (Σ)			300	503,2644

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l=\frac{3,885-0,7006}{9}$$

$$= 0,3539 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{503,264}{300} = 1,6775 \mu\text{m}$$

Tomat 1% ,t = minggu ke-0, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,7006-0,9058	0,8032	30	24,096
2.	0,9059-1,1111	1,0085	36	36,306
3.	1,1112-1,3164	1,3164	24	31,5936
4.	1,3165-1,5217	1,4191	48	68,1168
5.	1,5218-1,7270	1,6244	54	87,7176
6.	1,7271-1,9323	1,8297	18	32,9346
7.	1,9324-2,1376	2,0350	30	61,050
8.	2,1377-2,3429	2,2403	24	53,7672
9.	2,3430-2,5482	2,4456	36	53,7672
Jumlah (Σ)			300	483,6234

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,5477-0,7006}{9}$$

$$= 0,2052 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{483,6234}{300} = 1,6121 \mu\text{m}$$

Tomat 2% ,t = minggu ke-0, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,7006-1,0686	0,8846	18	15,228
2.	1,0687-1,4367	1,2527	90	112,743
3.	1,4368-1,8048	1,6208	96	155,596
4.	1,8049-2,1729	1,9889	72	143,200
5.	2,1730-2,5410	2,3570	12	28,284
6.	2,5411-2,9091	2,7251	-	-
7.	2,9092-3,2772	3,0932	6	18,5592
8.	3,2773-3,6453	3,4613	-	-
9.	3,6454-4,0134	3,8294	6	22,9764
Jumlah (Σ)			300	497,283

$$k=1+3,322\log 300 \\ =9,28 \sim 9$$

$$l = \frac{4,0127-0,7006}{9} \\ = 0,3680 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{497,283}{300} = 1,6576 \mu\text{m}$$

Tomat 3% ,t = minggu ke-0, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,7006-1,1528	0,9267	54	50,042
2.	1,1529-1,6051	1,3790	138	190,302
3.	1,6052-2,0574	1,8313	84	153,829
4.	2,0575-2,5097	2,2836	12	27,4032
5.	2,5098-2,9620	2,7359	6	16,4154
6.	2,9621-3,4143	3,1882	-	-
7.	3,4144-3,8666	3,6405	-	-
8.	3,8667-4,3189	4,0928	-	-
9.	4,3190-4,7712	4,5451	6	27,2706
Jumlah (Σ)			300	465,2622

$$k=1+3,322\log 300 \\ =9,28 \sim 9$$

$$l = \frac{4,770-0,7006}{9} \\ = 0,4522 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{465,2622}{300} = 1,5509 \mu\text{m}$$

Lampiran 3

Tomat 0,5% ,t = minggu ke-2, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3234	1,2031	60	72,186
2.	1,3235-1,5641	1,4438	-	-
3.	1,5642-1,8048	1,6845	66	111,177
4.	1,8049-2,0455	1,9252	72	138,6144
5.	2,0456-2,2862	2,1659	-	-
6.	2,2863-2,5269	2,4066	90	216,594
7.	2,5270-2,7676	2,6473	-	-
8.	2,7677-3,0083	2,2880	-	-
9.	3,0084-3,2490	3,1287	12	37,5444
Jumlah (Σ)			300	576,1158

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2484-1,0828}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{576,1158}{300} = 1,9204 \mu\text{m}$$

Tomat 1% ,t = minggu ke-2, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3517	1,2173	36	43,8228
2.	1,3518-1,6207	1,4863	96	142,684
3.	1,6208-1,8897	1,7553	30	63,1908
4.	1,8898-2,1587	2,0243	90	182,187
5.	2,1588-2,4277	2,2933	-	-
6.	2,4278-2,6967	2,5623	24	61,4952
7.	2,6968-2,9657	2,8313	-	-
8.	2,9658-3,2347	3,1003	-	-
9.	3,2348-3,5037	3,3693	18	60,6474
Jumlah (Σ)			300	554,028

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,5032-1,0828}{9}$$

$$= 0,2689 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{554,028}{300} = 1,8468 \mu\text{m}$$

Tomat 2% ,t = minggu ke-2, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,2382	1,1604	102	118,360
2.	1,2382-1,3939	1,3160	-	-
3.	1,3940-1,5465	1,4717	-	-
4.	1,5446-1,7053	1,6274	-	-
5.	1,7054-1,8610	1,7831	90	160,479
6.	1,8611-2,0167	1,9388	-	-
7.	2,0168-2,1723	2,0945	66	138,237
8.	2,1724-2,3280	2,2501	24	54,0024
9.	2,3281-2,4837	2,4058	18	43,3058
Jumlah (Σ)			300	514,381

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,4840-1,0828}{9}$$

$$= 0,1557 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{514,381}{300} = 1,715 \mu\text{m}$$

Tomat 3% ,t = minggu ke-2, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,8780-1,0473	0,9607	45	43,2067
2.	1,0423-1,2067	1,1244	-	-
3.	1,2068-1,3711	1,2889	-	-
4.	1,3712-1,5355	1,4533	67	98,1011
5.	1,5356-1,6999	1,6177	-	-
6.	1,7000-1,8643	1,7821	67	120,295
7.	1,8644-2,0287	2,0228	-	-
8.	2,0288-2,931	2,1109	-	-
9.	2,931-2,3575	2,2752	120	273,03
Jumlah (Σ)			300	535,44

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{32,356-0,8780}{9}$$

$$= 0,1643 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{535,44}{300} = 1,785 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-2, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,2809	1,1818	30	35,454
2.	1,2810-1,4791	1,380	48	66,24
3.	1,4792-1,6773	1,5782	66	104,161
4.	1,6774-1,8755	1,7765	12	21,318
5.	1,8756-2,0737	1,9746	-	-
6.	2,0738-2,2719	2,1728	78	154,01
7.	2,2720-2,4701	2,371	42	99,582
8.	2,4502-2,6683	2,5692	12	30,83
9.	2,6684-2,8665	2,7674	12	33,208
Jumlah (Σ)			300	544,80

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,8661-1,0828}{9}$$

$$= 0,1981 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{544,80}{300} = 1,816 \mu\text{m}$$

Tomat 1% ,t = minggu ke-2, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,2101	1,0827	66	71,458
2.	1,2102-1,4649	1,3375	60	80,25
3.	1,4650-1,7197	1,5923	24	38,215
4.	1,7198-1,9745	1,8471	48	88,66
5.	1,9746-2,2293	2,1019	54	113,502
6.	2,2294-2,4841	2,3567	-	-
7.	2,4842-2,7389	2,6115	-	-
8.	2,7380-2,9927	2,8653	-	-
9.	2,9928-3,2475	3,120	48	149,76
Jumlah (Σ)			300	541,845

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2484-0,9554}{9}$$

$$= 0,2547 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{541,845}{300} = 1,806 \mu\text{m}$$

Tomat 2% ,t = minggu ke-2, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3092	1,196	36	43,056
2.	1,3093-1,5357	1,4225	102	145,095
3.	1,5358-1,7622	1,649	54	89,046,
4.	1,7623-1,9887	1,8755	36	67,518
5.	1,9888-2,2152	2,102	60	126,12
6.	2,215-2,4417	2,3284	-	-
7.	2,4418-2,6682	2,555	-	-
8.	2,6682-2,8946	2,7814	-	-
9.	2,8947-3,1211	3,0079	12	36,094
Jumlah (Σ)			300	506,094

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,1210-1,0828}{9}$$

$$= 0,2264 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{506,929}{300} = 1,7897 \mu\text{m}$$

Tomat 3% ,t = minggu ke-2, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3234	1,2031	30	36,093
2.	1,3235-1,564	1,4438	48	69,302
3.	1,565-1,8056	1,6853	102	171,900
4.	1,8075-2,0463	1,9260	66	127,116
5.	2,0464-2,2870	2,1667	-	-
6.	2,2871-2,4277	2,4074	12	28,88
7.	2,5278-2,7684	2,6481	-	-
8.	2,7685-3,0091	2,8888	12	34,665
9.	3,0092-3,2497	3,1295	30	93,885
Jumlah (Σ)			300	561,84

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2487-1,0828}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{561,84}{300} = 1,8728 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-2, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,2243	1,1536	30	34,608
2.	1,2244-1,3659	1,2952	-	-
3.	1,3660-1,5075	1,4368	30	43,104
4.	1,5076-1,6491	1,5784	42	66,2928
5.	1,6492-1,7907	1,7200	42	72,24
6.	1,7908-1,9323	1,8616	54	100,526
7.	1,9324-2,0739	2,0032	48	96,1536
8.	2,0740-2,2155	2,1448	6	12,8688
9.	2,2156-2,3571	2,2864	48	109,7472
Jumlah (Σ)			300	535,5408

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,3566-1,0828}{9}$$

$$= 0,1415 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{535,5408}{300} = 1,785 \mu\text{m}$$

Tomat 1% ,t = minggu ke-2, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,7006-0,8280	0,7643	36	27,5148
2.	0,8281-0,9555	0,8918	12	10,7016
3.	0,9556-1,083	1,0193	6	6,1158
4.	1,084-1,2114	1,1477	24	27,5448
5.	1,2115-1,3389	1,2752	12	15,3024
6.	1,3390-1,4664	1,4027	60	84,162
7.	1,4665-1,5939	1,5302	54	82,6308
8.	1,5940-1,7214	1,6577	48	79,5696
9.	1,7215-1,8489	1,7852	48	85,6896
Jumlah (Σ)			300	519,2314

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{1,8471-0,7006}{9}$$

$$= 0,1274 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{519,2314}{300} = 1,73077 \mu\text{m}$$

Tomat 2% ,t = minggu ke-2, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3234	1,2031	30	36,093
2.	1,3235-1,5641	1,4438	48	69,3024
3.	1,5642-1,8048	1,6845	30	50,535
4.	1,8049-2,0455	1,9252	96	184,819
5.	2,0456-2,2862	2,1659	60	129,954
6.	2,2863-2,5269	2,4066	30	72,198,
7.	2,5270-2,7676	2,6473	-	-
8.	2,7677-3,0083	2,8880	-	-
9.	3,0084-3,2490	3,1287	6	18,7722
Jumlah (Σ)			300	561,6738

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$I = \frac{3,2484-1,0828}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{561,6738}{300} = 1,8723 \mu\text{m}$$

Tomat 3% ,t = minggu ke-2, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3092	1,196	36	43,056
2.	1,3093-1,5357	1,4225	102	145,095
3.	1,5358-1,7622	1,649	54	89,046,
4.	1,7623-1,9887	1,8755	36	67,518
5.	1,9888-2,2152	2,102	60	126,12
6.	2,215-2,4417	2,3284	-	-
7.	2,4418-2,6682	2,555	-	-
8.	2,6682-2,8946	2,7814	-	-
9.				
Jumlah (Σ)			300	550,9632

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$I = \frac{4,1401-0,8280}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{561,84}{300} = 1,8728 \mu\text{m}$$

Lampiran 4

Tomat 0,5% ,t = minggu ke-4, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3659	1,2244	72	88,1568
2.	1,3660-1,6491	1,5676	-	-
3.	1,6492-1,9323	1,7908	54	96,703
4.	1,9324-2,2155	2,0740	42	87,108
5.	2,2156-2,4987	2,3572	126	297,0072
6.	2,4988-2,7819	2,6404	-	-
7.	2,7820-3,0651	2,9236	-	-
8.	3,0652-3,3483	3,2068	-	-
9.	3,3484-3,6315	3,4900	6	20,940
Jumlah (Σ)			300	589,9152

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,6305-1,0828}{9}$$

$$= 0,2831 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{589,915}{300} = 1,9663 \mu\text{m}$$

Tomat 1% ,t = minggu ke-4, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,8780-1,1414	1,0097	60	60,5820
2.	1,1415-1,4040	1,2732	-	-
3.	1,4050-1,6684	1,5367	96	147,523
4.	1,6685-1,9319	1,8002	-	-
5.	1,9320-2,1954	2,0637	60	123,822
6.	2,1955-2,4589	2,3272	48	111,705
7.	2,4590-2,7224	2,5907	-	-
8.	2,7225-2,9859	2,8542	-	-
9.	2,9860-3,2494	3,1177	36	112,237
Jumlah (Σ)			300	555,870

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2434-0,878}{9}$$

$$= 0,1317 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{555,87}{300} = 1,8529 \mu\text{m}$$

Tomat 2% ,t = minggu ke-4, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd	
1.	1,0828-1,1960	1,1394	60	68,3640	$k=1+3,322\log 300$ $=9,28\sim 9$ $I = \frac{3,2484-0,9554}{9}$ $= 0,2548 \mu\text{m}$
2.	1,1891-1,3093	1,2527	48	60,1296	
3.	1,3094-1,4226	1,3660	-	-	
4.	1,4227-1,5359	1,4793	48	71,0064	
5.	1,5360-1,6492	1,5926	-	-	
6.	1,6493-1,7625	1,7059	48	81,8832	
7.	1,7626-1,8758	1,8192	-	-	
8.	1,8759-1,9891	1,9325	36	69,57	
9.	1,9892-2,1024	2,0458	60	122,748	
Jumlah (Σ)			300	573,7052	

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{573,701}{300} = 1,91233 \mu\text{m}$$

Tomat 3% ,t = minggu ke-4, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd	
1.	1,4649-1,6058	1,5354	174	267,156	$k=1+3,322\log 300$ $=9,28\sim 9$ $I = \frac{2,7332-1,4649}{9}$ $= 0,14092 \mu\text{m}$
2.	1,6058-1,7467	1,6763	-	-	
3.	1,7467-1,8876	1,8172	-	-	
4.	1,8876-2,0286	1,9581	36	70,4944	
5.	2,0287-2,1696	2,0992	60	125,952	
6.	2,1696-2,3105	2,2401	-	-	
7.	2,3105-2,4514	2,3816	-	-	
8.	2,3105-2,5924	2,5219	-	-	
9.	2,5942-2,7334	2,6629	30	79,887	
Jumlah (Σ)			300	543,493	

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{543,493}{300} = 1,8116 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-4, T= 25°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,4649-1,6347	1,5498	108	167,3748
2.	1,6348-1,8046	1,7197	54	92,8638
3.	1,8047-1,9745	1,8896	60	113,376
4.	1,9746-2,1444	2,0595	-	-
5.	2,1445-2,3143	2,2294	54	120,387
6.	2,3144-2,4842	2,3993	-	-
7.	2,4843-2,6541	2,5692	-	-
8.	2,6542-2,8240	2,7391	-	-
9.	2,8241-2,0039	2,9090	24	69,816
Jumlah (Σ)			300	563,821

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-1,4649}{9}$$

$$= 0,1698 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{563,821}{300} = 1,8794 \mu\text{m}$$

Tomat 1% ,t = minggu ke-4, T= 25°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1960	1,0757	66	71,458
2.	1,1961-1,4367	1,3164	60	80,25
3.	1,4368-1,6774	1,5571	24	38,215
4.	1,6775-1,9180	1,7977	48	88,66
5.	1,9181-2,1587	2,0384	54	113,502
6.	2,1588-2,3994	2,2791	-	-
7.	2,3995-2,6400	2,5198	-	-
8.	2,6401-2,8816	2,7613	-	-
9.	2,8817-3,1223	3,0005	48	149,76
Jumlah (Σ)			300	541,845

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2484-0,9554}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{541,845}{300} = 1,8062 \mu\text{m}$$

Tomat 2% ,t = minggu ke-4, T= 25°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd	
1.	1,0828-1,3092	1,1126	36	43,056	$k=1+3,322\log 300$ $=9,28 \sim 9$ $l = \frac{3,0079-1,196}{9}$ $= 0,2264 \mu\text{m}$
2.	1,3093-1,5357	1,4225	102	145,095	
3.	1,5358-1,7622	1,649	54	89,046	
4.	1,7623-1,9887	1,8255	36	67,518	
5.	1,9888-2,2152	2,102	60	126,12	
6.	2,2153-2,4417	2,3284	-	-	
7.	2,4418-2,6668	2,555	-	-	
8.	2,6682-2,8946	2,7814	-	-	
9.	2,8947-3,1211	3,0079	12	36,094	
Jumlah (Σ)			300	506,929	

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{506,929}{300} = 1,6897 \mu\text{m}$$

Tomat 3% ,t = minggu ke-4, T= 25°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd	
1.	1,4649-1,6058	1,5354	174	267,159	$k=1+3,322\log 300$ $=9,28 \sim 9$ $l = \frac{2,7332-1,4092}{9}$ $= 0,14092 \mu\text{m}$
2.	1,6058-1,7467	1,6763	-	-	
3.	1,7467-1,8876	1,8172	-	-	
4.	1,8876-2,2028	1,9581	36	70,494	
5.	2,0287-2,1696	2,0992	60	125,952	
6.	2,1696-2,3105	2,2401	-	-	
7.	2,3105-2,4514	2,3180	-	-	
8.	2,4514-2,5924	2,5219	-	-	
9.	2,5942-2,7333	2,6629	30	79,8876	
Jumlah (Σ)			300	543,4936	

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{543,4936}{300} = 1,8116 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-4, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,8780-1,0473	0,9607	45	43,2067
2.	1,0423-1,2067	1,1244	-	-
3.	1,2068-1,3711	1,2889	-	-
4.	1,3712-1,5355	1,4533	67	98,1011
5.	1,5356-1,6999	1,6177	-	-
6.	1,7000-1,8643	1,7821	67	120,295
7.	1,8644-2,0287	2,0228	-	-
8.	2,0288-2,931	2,1109	-	-
9.	2,931-2,3575	2,2752	120	273,03
Jumlah (Σ)			300	534,1633

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{32,356-0,878}{9}$$

$$= 0,1643 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{534,633}{300} = 1,7821 \mu\text{m}$$

Tomat 1% ,t = minggu ke-4, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,8280-1,1960	1,0120	48	
2.	1,1961-1,5641	1,3801	48	
3.	1,5642-1,9322	1,7482	48	
4.	1,9323-2,3003	2,1163	144	
5.	2,3004-2,6684	2,4844	-	
6.	2,6685-3,0365	2,8525	-	
7.	3,0366-3,4046	3,2206	-	
8.	3,4047-3,7727	3,5887	-	
9.	3,7728-4,1408	3,9658	12	
Jumlah (Σ)			300	550,9632

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{4,1401-0,8280}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{561,84}{300} = 1,8728 \mu\text{m}$$

Tomat 2% ,t = minggu ke-4, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3234	1,2031	30	36,093
2.	1,3235-1,5641	1,4438	48	69,3024
3.	1,5642-1,8048	1,6845	30	50,535
4.	1,8049-2,0455	1,9252	96	184,819
5.	2,0456-2,2862	2,1659	60	129,954
6.	2,2863-2,5269	2,4066	30	72,198,
7.	2,5270-2,7676	2,6473	-	-
8.	2,7677-3,0083	2,8880	-	-
9.	3,0084-3,2490	3,1287	6	18,7722
Jumlah (Σ)			300	561,6738

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2484-1,0828}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{561,6738}{300} = 1,8723 \mu\text{m}$$

Tomat 3% ,t = minggu ke-4, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,4649-1,6347	1,5498	90	139,482
2.	1,6348-1,8046	1,7197	-	-
3.	1,8047-1,9745	1,8896	114	215,414
4.	1,9746-2,1444	2,0595	36	74,1420
5.	2,1445-2,3143	2,2294	-	-
6.	2,3144-2,4842	2,3993	30	86,374
7.	2,4843-2,6541	2,5692	-	-
8.	2,6542-2,8240	2,7391	-	-
9.	2,8241-2,9939	2,9090	24	69,8160
Jumlah (Σ)			300	645,2292

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-1,4649}{9}$$

$$= 0,1698 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{645,2292}{300} = 2,1507$$

Lampiran 5

Tomat 0,5% ,t = minggu ke-6, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,4649-1,6489	1,5569	120	186,8280
2.	1,6490-1,8330	1,7410	-	-
3.	1,8331-2,0171	1,9251	24	46,2024
4.	2,0172-2,2012	2,1092	30	63,2760
5.	2,2013-2,3853	2,2933	84	192,6372
6.	2,3854-2,5694	2,4774	-	-
7.	2,5695-2,7535	2,6615	-	-
8.	2,7536-2,9376	2,8456	18	51,2208
9.	2,9377-3,1217	3,0297	24	72,7128
Jumlah (Σ)			300	612,8772

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,1210-1,4649}{9}$$

$$= 0,1840 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{612,8772}{300} = 2,043 \mu\text{m}$$

Tomat 1% ,t = minggu ke-6, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,2662	1,1745	48	56,376
2.	1,2663-1,4497	1,3580	-	-
3.	1,4498-1,6332	1,5415	66	101,739
4.	1,6333-1,8167	1,7250	30	51,75
5.	1,8168-2,0002	1,9085	60	114,51
6.	2,0003-2,1837	2,0920	-	-
7.	2,1838-2,3672	2,2755	78	177,489
8.	2,3673-2,5507	2,4590	-	-
9.	2,5508-2,7342	2,6425	18	47,565
Jumlah (Σ)			300	549,429

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,7332-1,0828}{9}$$

$$= 0,1834 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{549,429}{300} = 1,831 \mu\text{m}$$

Tomat 2% ,t = minggu ke-6, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1960	1,0757	48	51,634
2.	1,1961-1,4367	1,3164	18	23,6937
3.	1,4368-1,6774	1,5571	42	65,391
4.	1,6775-1,9180	1,7977	66	118,6376
5.	1,9181-2,1587	2,0384	48	97,8312
6.	2,1588-2,3994	2,2791	54	123,053
7.	2,3995-2,6400	2,5198	-	-
8.	2,6401-2,8816	2,7613	-	-
9.	2,8817-3,1223	3,0005	24	72,0141
Jumlah (Σ)			300	552,2549

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,1210-0,9554}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{552,2549}{300} = 1,841 \mu\text{m}$$

Tomat 3% ,t = minggu ke-6, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,2102-1,4084	1,3093	42	54,9906
2.	1,4085-1,6067	1,5076	42	63,3192
3.	1,6067-1,8050	1,7059	-	-
4.	1,8051-2,0033	1,9042	114	217,0788
5.	2,0034-2,2016	2,1025	30	63,075
6.	2,2017-2,3999	2,3008	36	82,8288
7.	3,4000-2,5982	2,4991	-	-
8.	2,5983-2,7965	2,6974	-	-
9.	2,7966-2,9948	2,8957	36	104,2452
Jumlah (Σ)			300	585,5376

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-1,2102}{9}$$

$$= 0,1982 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{585,5376}{300} = 1,9518 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-6, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1819	1,0686	24	25,6478
2.	1,1819-1,4084	1,2951	-	-
3.	1,4085-1,6349	1,5216	30	45,6504
4.	1,6350-1,8614	1,7481	-	-
5.	1,8615-2,0879	1,9747	54	106,6338
6.	2,0880-2,3144	2,2012	96	211,3162
7.	2,3145-2,5409	2,4277	48	116,5306
8.	2,5410-2,7674	2,6542	36	95,5523
9.	2,7675-2,9939	2,8807	12	34,5689
Jumlah (Σ)			300	635,8992

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-0,9554}{9}$$

$$= 0,2265 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{635,8992}{300} = 2,1197 \mu\text{m}$$

Tomat 1% ,t = minggu ke-6, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,2101-1,4224	1,3161	48	63,171
2.	1,4225-1,6348	1,5285	60	91,71
3.	1,6349-1,8472	1,7409	66	114,8994
4.	1,8473-2,0596	1,9533	-	-
5.	2,0597-2,2720	2,1657	-	-
6.	2,2721-2,4844	2,3781	78	185,5628
7.	2,4845-2,6968	2,4905	-	-
8.	2,6968-2,9091	2,7008	12	33,6846
9.	2,9092-3,1215	3,0152	36	108,7562
Jumlah (Σ)			300	597,782

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,1210-1,2101}{9}$$

$$= 0,2123 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{597,782}{300} = 1,993 \mu\text{m}$$

Tomat 2% ,t = minggu ke-6, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3234	1,1882	42	49,736
2.	1,3235-1,564	1,4255	-	-
3.	1,565-1,8056	1,6662	60	99,96
4.	1,8075-2,0463	1,9071	48	91,54
5.	2,0464-2,2870	2,1476	72	154,584
6.	2,2871-2,4277	2,3883	30	71,64
7.	2,5278-2,7684	2,6290	-	-
8.	2,7685-3,0091	2,8697	18	51,642
9.	3,0092-3,2497	3,1104	30	93,3
Jumlah (Σ)			300	612,402

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,1210-1,0828}{9}$$

$$= 0,2264 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{612,402}{300} = 2,041 \mu\text{m}$$

Tomat 3% ,t = minggu ke-6, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1818	1,0686	30	32,058
2.	1,1819-1,4083	1,2451	36	46,6236
3.	1,4084-1,6348	1,5216	-	-
4.	1,6349-1,8613	1,7481	42	73,416
5.	1,8614-2,1178	1,9746	48	94,752
6.	2,1179-2,3443	2,2012	-	-
7.	2,3444-2,5708	2,4276	-	-
8.	2,5709-2,7973	2,6541	48	127,396
9.	2,7974-2,0238	2,8806	48	138,24
Jumlah (Σ)			300	618,142

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2487-1,0828}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{618,142}{300} = 2,0604 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-6, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,4012-1,5492	1,4752	96	141,6192
2.	1,5493-1,6973	1,6233	48	77,9184
3.	1,6974-1,8454	1,7714	-	-
4.	1,8455-1,9935	1,9195	48	92,136
5.	1,9936-2,1416	2,0676	-	-
6.	2,1417-2,2897	2,2157	-	-
7.	2,2898-2,4378	2,3638	78	184,3764
8.	2,4379-2,5859	2,5119	-	-
9.	2,5860-2,7340	2,6600	30	79,8
Jumlah (Σ)			300	575,85

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,7332-1,4012}{9}$$

$$= 0,1480 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{575,85}{300} = 1,9195 \mu\text{m}$$

Tomat 1% ,t = minggu ke-6, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1819	1,0686	90	96,1794
2.	1,1819-1,4084	1,2951	-	-
3.	1,4085-1,6349	1,5216	-	-
4.	1,6350-1,8614	1,7481	60	104,8914
5.	1,8615-2,0879	1,9747	42	82,9374
6.	2,0880-2,3144	2,2012	-	-
7.	2,3145-2,5409	2,4277	72	174,7958
8.	2,5410-2,7674	2,6542	-	-
9.	2,7675-2,9939	2,8807	36	103,7066
Jumlah (Σ)			300	564,5106

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-0,9554}{9}$$

$$= 0,2265 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{564,5106}{300} = 1,875 \mu\text{m}$$

Tomat 2% ,t = minggu ke-6, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,3234	1,2031	36	43,316
2.	1,3234-1,5641	1,4438	48	69,3024
3.	1,5642-1,8048	1,6845	66	111,177
4.	1,8049-2,0455	1,9252	42	80,8584
5.	2,0456-2,2862	2,1659	78	168,9402
6.	2,2863-2,5269	2,4066	-	-
7.	2,5270-2,7676	2,6473	-	-
8.	2,7677-3,0083	2,8880	18	51,984
9.	3,0084-3,2490	3,1287	12	37,5444
Jumlah (Σ)			300	563,118

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,2484-1,0828}{9}$$

$$= 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{563,118}{300} = 1,877 \mu\text{m}$$

Tomat 3% ,t = minggu ke-6, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,4649-1,6489	1,5569	120	186,828
2.	1,6490-1,8330	1,7410	42	73,122
3.	1,8331-2,0171	1,9251	-	-
4.	2,0172-2,2012	2,1092	84	177,1728
5.	2,2013-2,3853	2,2933	-	-
6.	2,3854-2,5694	2,4774	-	-
7.	2,5695-2,7535	2,6615	-	-
8.	2,7536-2,9376	2,8456	36	102,4416
9.	2,9377-3,1217	3,0297	18	54,5346
Jumlah (Σ)			300	594,099

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,1210-1,4649}{9}$$

$$= 0,1840 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{594,099}{300} = 1,9803 \mu\text{m}$$

Lampiran 6

Tomat 0,5%, t = minggu ke-8, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1818	1,0686	42	44,881
2.	1,1819-1,4083	1,2951	-	-
3.	1,4084-1,6348	1,5216	54	82,166
4.	1,6349-1,8613	1,7481	60	104,886
5.	1,8614-2,1178	2,0878	30	62,634
6.	2,1179-2,3443	2,2311	48	107,092
7.	2,3444-2,5708	2,4526	24	58,862
8.	2,5709-2,7973	2,6841	-	-
9.	2,7974-2,0238	2,9106	7	20,374
Jumlah (Σ)			300	480,895

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-0,9554}{9}$$

$$= 0,1132 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{480,895}{300} = 1,603 \mu\text{m}$$

Tomat 1% ,t = minggu ke-8, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1819	1,0687	36	38,4718
2.	1,1820-1,4085	1,2952	-	-
3.	1,4086-1,6351	1,5217	54	82,1707
4.	1,6352-1,8617	1,7419	-	-
5.	1,8618-2,0883	1,9747	36	71,0892
6.	2,0884-2,3149	2,2012	66	145,2799
7.	2,3150-2,5415	2,4277	84	203,9285
8.	2,5416-2,7681	2,6542	-	-
9.	2,7682-2,9947	2,8807	24	69,1378
Jumlah (Σ)			300	610,0778

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,9936-0,9554}{9}$$

$$= 0,2265 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{610,0778}{300} = 2,034 \mu\text{m}$$

Tomat 2% ,t = minggu ke-8, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,2102-1,3234	1,2668	66	83,6081
2.	1,3235-1,4367	1,3800	-	-
3.	1,4368-1,5500	1,4933	-	-
4.	1,5501-1,6633	1,6066	-	-
5.	1,6634-1,7766	1,7199	66	113,5134
6.	1,7767-1,8899	1,8332	42	76,9944
7.	1,8900-2,0032	1,9465	42	81,753
8.	2,0033-2,1165	2,0598	42	86,5116
9.	2,1166-2,2298	2,1731	42	91,2702
Jumlah (Σ)			300	533,6507

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,2292-1,2102}{9}$$

$$= 0,1132 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{533,6507}{300} = 1,779 \mu\text{m}$$

Tomat 3% ,t = minggu ke-8, T= 4°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,2102-1,3942	1,3022	54	70,3188
2.	1,3943-1,5783	1,4863	30	44,589
3.	1,5784-1,7624	1,6704	-	-
4.	1,7625-1,9465	1,8545	30	55,635
5.	1,9466-2,1306	2,0386	30	61,158
6.	2,1307-2,3147	2,2227	96	213,3792
7.	2,3148-2,4988	2,4068	30	72,204
8.	2,4989-2,6829	2,5909	-	-
9.	2,6830-2,8670	2,7750	30	83,25
Jumlah (Σ)			300	600,534

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,8662-1,2102}{9}$$

$$= 0,1840 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{600,534}{300} = 2,002 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-8, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,5923-1,7479	1,6701	138	230,473
2.	1,7480-1,9036	1,8258	-	-
3.	1,9037-2,0593	1,9815	36	71,334
4.	2,0594-2,2150	2,1372	48	102,585
5.	2,2151-2,3707	2,2928	48	110,054
6.	2,3708-2,5264	2,4486	-	-
7.	2,5265-2,6821	2,6042	-	-
8.	2,6822-2,8378	2,7600	-	-
9.	2,8379-2,9938	2,9157	30	87,471
Jumlah (Σ)			300	601,917

$$k=1+3,322\log 300 \\ =9,28 \sim 9$$

$$l = \frac{2,9936-1,5923}{9} \\ = 0,1556 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{601,917}{300} = 2,007 \mu\text{m}$$

Tomat 1% ,t = minggu ke-8, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,1960	1,0757	48	49,075
2.	1,1961-1,4367	1,3164	-	-
3.	1,4368-1,6774	1,5571	108	168,166
4.	1,6775-1,9180	1,7977	60	107,862
5.	1,9181-2,1587	2,0384	48	97,843
6.	2,1588-2,3994	2,2791	-	-
7.	2,3995-2,6400	2,5198	-	-
8.	2,6401-2,8816	2,7613	-	-
9.	2,8817-3,1223	3,0005	36	108,072
Jumlah (Σ)			300	531,018

$$k=1+3,322\log 300 \\ =9,28 \sim 9$$

$$l = \frac{3,2484-0,9554}{9} \\ = 0,2406 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{531,018}{300} = 1,770 \mu\text{m}$$

Tomat 2% ,t = minggu ke-8, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,2243	1,1535	66	76,13
2.	1,2244-1,3659	1,2951	-	-
3.	1,3660-1,5075	1,4367	-	-
4.	1,5076-1,6491	1,5783	60	94,698
5.	1,6492-1,7907	1,7199	48	82,555
6.	1,7098-1,9323	1,8615	66	122,859
7.	1,9324-2,0739	2,0031	18	36,055
8.	2,0740-2,2154	2,1447	-	-
9.	2,255-2,3570	2,2862	42	96,020
Jumlah (Σ)			300	508,317

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$I = \frac{2,3556-1,0828}{9}$$

$$= 0,1415 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{508,317}{300} = 1,694 \mu\text{m}$$

Tomat 3% ,t = minggu ke-8, T= 27-30°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,0828-1,2951	1,1889	90	107
2.	1,2952-1,5075	1,4013	36	50,446
3.	1,5076-1,7199	1,6137	42	67,775
4.	1,7200-1,9323	1,8262	-	-
5.	1,9324-2,1447	2,0385	-	-
6.	2,1448-2,3571	2,2509	66	148,559
7.	2,3572-2,5695	2,4633	30	73,899
8.	2,5696-2,7819	2,7021	-	-
9.	2,7820-2,9943	2,8881	36	103,971
Jumlah (Σ)			300	551,65

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$I = \frac{2,9936-1,0828}{9}$$

$$= 0,2123 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{551,65}{300} = 1,839 \mu\text{m}$$

Tomat 0,5% ,t = minggu ke-8, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,9554-1,2526	1,1040	54	59,6165
2.	1,2527-1,5499	1,4012	-	-
3.	1,5500-1,8472	1,6984	60	101,9058
4.	1,8473-2,1445	1,9956	54	107,7646
5.	2,1446-2,4418	2,2928	120	275,1420
6.	2,4419-2,7391	2,5901	-	-
7.	2,7392-3,0364	2,8873	-	-
8.	3,0365-3,3337	3,1845	-	-
9.	3,3338-3,6310	3,4817	12	41,7803
Jumlah (Σ)			300	586,2092

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{3,6305-0,9554}{9}$$

$$= 0,2972 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{586,2092}{300} = 1,964 \mu\text{m}$$

Tomat 1% ,t = minggu ke-8, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,2102-1,3517	1,2810	68	86,4680
2.	1,3518-1,4933	1,4226	45	64,0170
3.	1,4934-1,6349	1,5642	-	-
4.	1,6350-1,7765	1,7058	-	-
5.	1,7766-1,9181	1,8474	30	55,4220
6.	1,9182-2,0597	1,9890	60	119,34
7.	2,0598-2,2013	2,1306	-	-
8.	2,2014-2,3429	2,2722	75	170,415
9.	2,3430-2,4845	2,4238	22	54,3106
Jumlah (Σ)			300	549,972

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,4840-1,2102}{9}$$

$$= 0,1415 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{549,972}{300} = 1,833 \mu\text{m}$$

Tomat 2% ,t = minggu ke-8, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	0,8784-1,0564	0,9672	30	29,016
2.	1,0565-1,2349	1,1457	-	-
3.	1,2350-1,4134	1,3242	-	-
4.	1,4135-1,5919	1,5027	-	-
5.	1,5920-1,7704	1,6812	-	-
6.	1,7705-1,9489	1,8597	90	167,373
7.	1,9490-2,1274	2,0382	138	281,2716
8.	2,1275-2,3059	2,2167	-	-
9.	2,3060-2,4844	2,3952	42	100,5984
Jumlah (Σ)			300	578,259

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,4840-0,8780}{9}$$

$$= 0,1784 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{578,259}{300} = 1,928 \mu\text{m}$$

Tomat 3% ,t = minggu ke-8, T= 40°C, n=300

No.	Rentang (μm)	Nilai Tengah (m)	n	nd
1.	1,4649-1,5781	1,5215	78	118,677
2.	1,5782-1,6914	1,6348	-	-
3.	1,6915-1,8047	1,7481	30	52,443
4.	1,8048-1,9180	1,8614	-	-
5.	1,9181-2,0313	1,9747	60	118,482
6.	2,0314-2,1446	2,0880	60	125,28
7.	2,1447-2,2579	2,2013	30	66,039
8.	2,2580-2,3712	2,3146	-	-
9.	2,3713-2,4845	2,4279	42	101,9718
Jumlah (Σ)			300	582,8928

$$k=1+3,322\log 300$$

$$=9,28 \sim 9$$

$$l = \frac{2,4840-1,4649}{9}$$

$$= 0,1132 \mu\text{m}$$

$$d_{\text{rata-rata}} = \frac{\sum nd}{\sum n} = \frac{582,8928}{300} = 1,943 \mu\text{m}$$

Lampiran 7

Perhitungan aktivitas antioksidan dengan menggunakan metode peredaman DPPH

Nilai 50 % peredaman DPPH (IC50) dihitung dengan menggunakan rumus:

$$\% \text{ EC50} = \left\{ \frac{\text{Serapan kontrol} - \text{Serapan sampel}}{\text{Serapan kontrol}} \right\} \times 100\%$$

A. Perhitungan aktivitas antioksidan awal krim

1. Krim tomat 0,5% = $\frac{0,10944 - 0,0694}{0,10944} \times 100\% = 36,58\%$
2. Krim tomat 1 % = $\frac{0,10944 - 0,0427}{0,10944} \times 100\% = 60,98\%$
3. Krim tomat 2 % = $\frac{0,10944 - 0,0348}{0,10944} \times 100\% = 68,20\%$
4. Krim tomat 3 % = $\frac{0,10944 - 0,0292}{0,10944} \times 100\% = 73,33\%$
5. Krim vitamin 0,5% = $\frac{0,10944 - 0,0474}{0,10944} \times 100\% = 62,20\%$

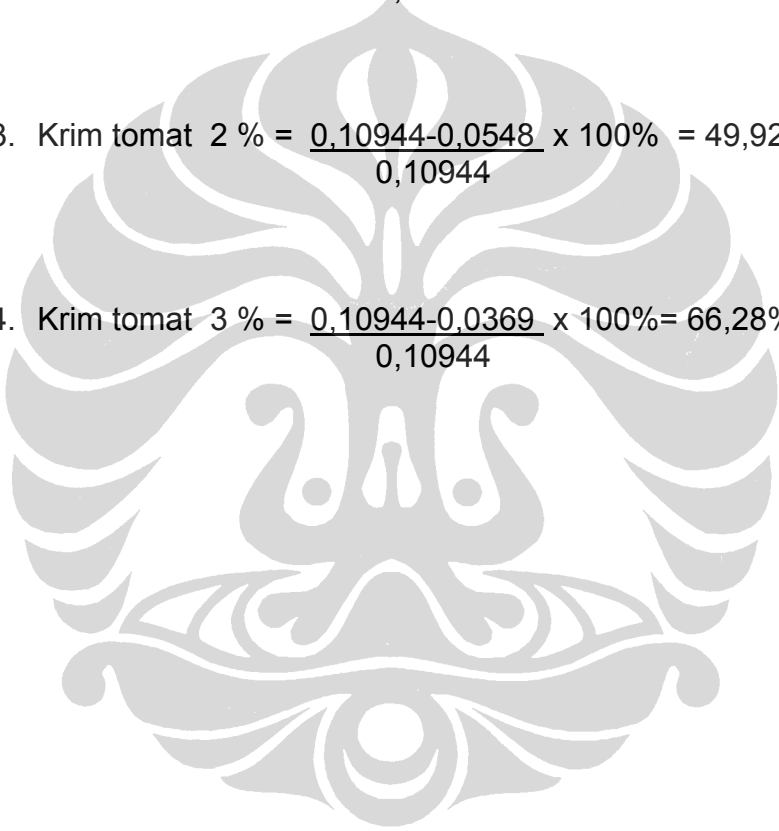
B. Perhitungan aktivitas antioksidan krim setelah penyimpanan pada suhu kamar selama 8 minggu

1. Krim tomat 0,5% = $\frac{0,10944-0,0862}{0,10944} \times 100\% = 21,23\%$

2. Krim tomat 1 % = $\frac{0,10944-0,0616}{0,10944} \times 100\% = 43,71\%$


3. Krim tomat 2 % = $\frac{0,10944-0,0548}{0,10944} \times 100\% = 49,92\%$

4. Krim tomat 3 % = $\frac{0,10944-0,0369}{0,10944} \times 100\% = 66,28\%$



Lampiran 8

Sertifikat analisis vitamin C



Weisheng Pharmaceutical(Shijiazhuang)Co., Ltd
236 Huangke Street, Shijiazhuang, China

Certificate of Analysis

Product: Ascorbic Acid Analysis standard: BP2000/USP26
Batch No: 05117302 Quantity: 4000KGS
Manufacturing Date: Nov., 2005 Analysis date: Nov., 2005
Expiry Date: Nov., 2007

Item	Analysis	Standard	Result
Characteristics	White crystalline powder		Pass
Identification	Positive Reaction	Positive Reaction	Pass
Melting Point	≈190°C		191.00°C
pH	2.1 ~ 2.6		2.4
Clarity of Solution	Pass		Pass
Color of Solution	<BY ₇		<BY ₇
Copper Salt	≤5ppM		<5ppM
Heavy Metal	≤3ppM	≤20ppM	<3ppM
Ferrite	≤2ppM		<2ppM
Oxalate	≤0.2%		<0.2%
Sulfated Ash	≤0.1%	≤0.1%	0.03%
Specific Rotation	+20.5°~+21.5°		+21.3°
Assay	99.0~100.5%	99.0~100.5%	99.67%
Organic Volatile Impurities		Pass	Pass

Conclusion: The above product complies with BP/USP

Manufacturer: Weisheng Pharmaceutical (Shijiazhuang) Co.,LTD

Lampiran 9

Sertifikat analisis ekstrak kering tomat

Certificate of Analysis

- Product : Tomato powder
- Code : BEU-TMT.001.4
- Lot No. : LB 91707-P
- Typical Physical Properties :
 - Appearance : Orange to red color
 - Odor : Characteristic tomato
 - Solubility : Water soluble
 - pH (1% solution) : 4,58
 - Moisture content (%) : 4,52%
- Typical Microbiological :
 - Total plate count : < 5000
 - Yeast and mold : < 250cell/ml
 - E. coli : Negative
- Remarks

This product is natural. Store in highly close containers with minimum head place in a cool dark and dry place, in absence of direct sunlight

- Shelf life : December, 2008
- Packaging:: Plastic/5 kg

Bali, January 16th 2008