

Lampiran 1 Hasil Penelitian Pendahuluan

Hasil Uji Vitamin C dengan Pemanasan 100⁰C dalam Sawi Putih

Waktu (menit)	Vitamin C (mg/100gr)
60	-0,4153
60	0,0656
60	0,2536
60	-0,3454
60	-0,3585
60	-0,3410
35	4,0131
35	3,8907
35	2,7978
35	3,0164
35	3,4842
35	2,1683

Hasil Uji Vitamin C dengan Pemanasan 70⁰C dalam Sawi Putih

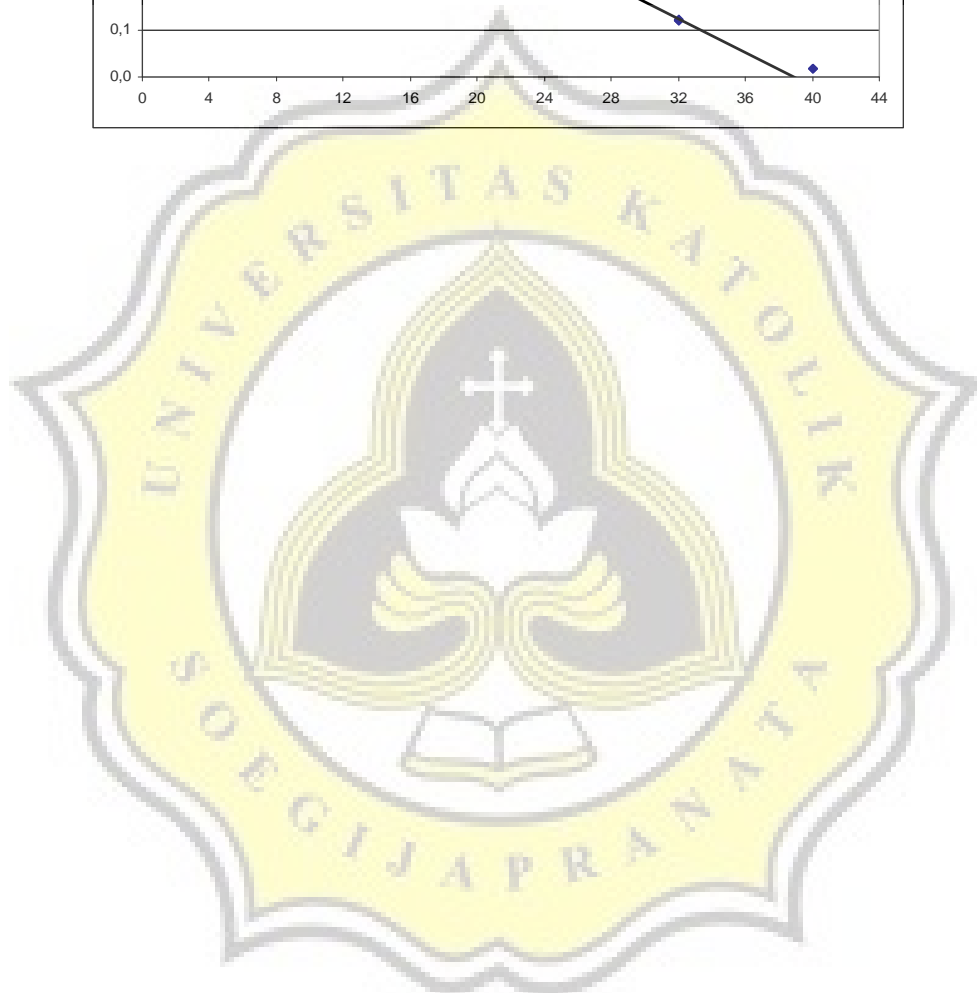
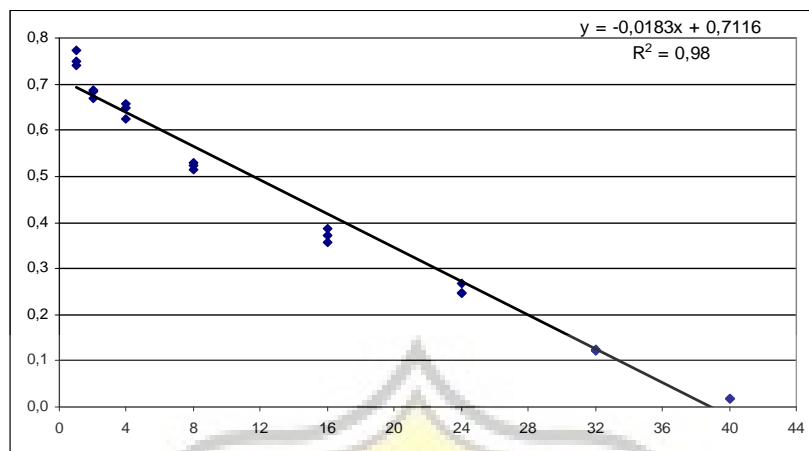
Waktu (menit)	Vitamin C (mg/100gr)
60	1,0754
60	2,0503
60	1,1847
35	4,7301
35	5,6918
35	5,1322
15	15,9169
15	16,9049
15	16,6601

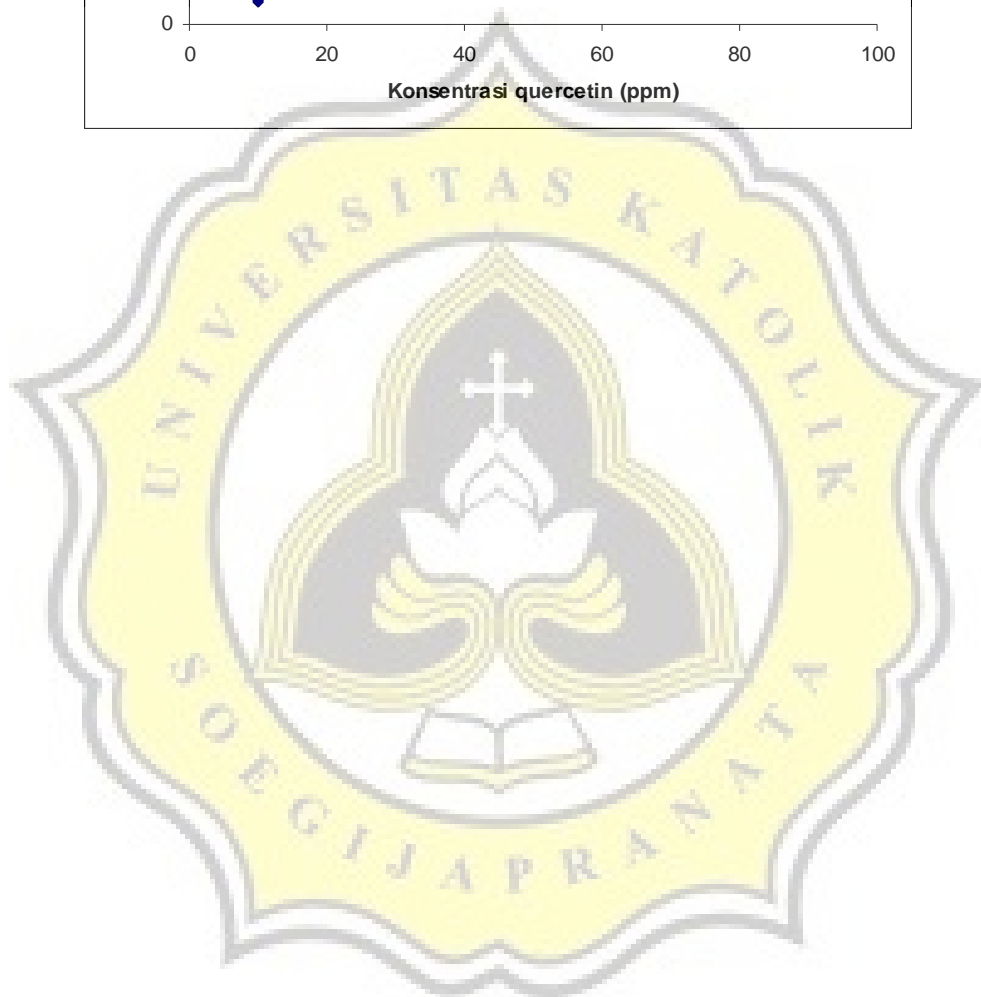
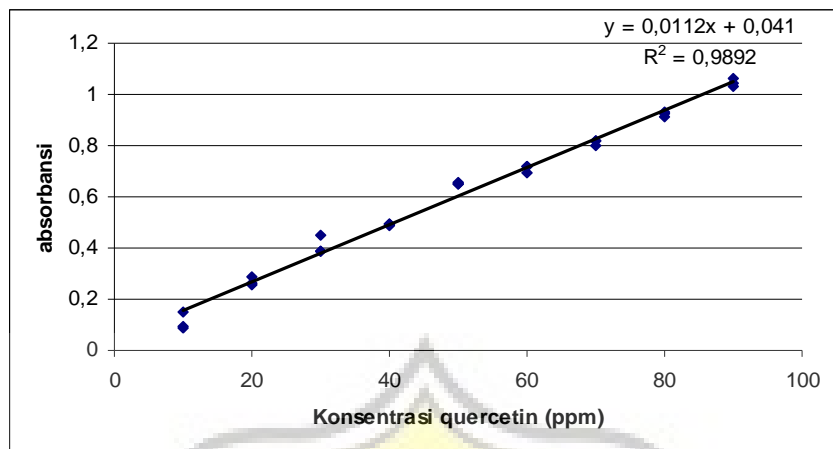
Hasil Uji Vitamin C dalam Air Rebusan

Waktu (menit)	Vitamin C (mg/100gr)
60	0,6295
60	0,7213
60	0,4678
35	1,1760
35	1,3727
35	1,0579
15	1,7967
15	2,0590
15	1,8404

Lampiran 2 Hasil Observasi

Nama (Rumah Makan)	Bentuk Masakan	Waktu yang Diperlukan Untuk Merebus	Perlakuan Sebelum Direbus
Tinah (Warteg Ferdi)	Cap Cai Kuah	10-15 Menit	- Dicuci - Dipotong
Murni (Pentul)	Cap Cai Kuah	12-15 Menit	- Dicuci - Dipotong– potong
Asih (MM)	Cap Cai Kuah Sawi Rebus Telur	15 Menit	- Dihilangkan Bagian yang rusak - Dicuci - Dipotong – potong
Minah (Warteg 24 Jam)	Cap Cai Kuah	15 menit	- dicuci - dipotong
Bambang (Warteg Bambang)	Cap Cai Kuah	30 menit	- Dihilangkan bagian yang rusak - dicuci - dipotong

Lampiran 3. Kurva Standar Vitamin C

Lampiran 4. Kurva Standar Fenol

Lampiran 5 Hasil Pengujian SPSS Vitamin C, Fenol dan Aktivitas Antioksidan Vitamin C dalam Sawi Putih

Tests of Normality

waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
VitaminC ,00	,227	6	,200*	,900	6	,374
3,00	,170	6	,200*	,970	6	,891
6,00	,218	6	,200*	,945	6	,700
9,00	,215	6	,200*	,934	6	,608
12,00	,227	6	,200*	,876	6	,251
15,00	,211	6	,200*	,967	6	,873
20,00	,254	6	,200*	,905	6	,403
25,00	,255	6	,200*	,910	6	,433
35,00	,258	6	,200*	,853	6	,166
45,00	,232	6	,200*	,910	6	,435
60,00	,292	6	,121	,815	6	,080

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
,00	6	28,6900	,31925	,13033	28,3549	29,0250	28,15	29,00
3,00	6	24,7745	,65586	,26775	24,0862	25,4628	23,80	25,62
6,00	6	19,7202	1,84548	,75341	17,7835	21,6569	17,58	22,45
9,00	6	18,2718	1,34570	,54938	16,8595	19,6840	16,47	19,96
12,00	6	16,5261	1,02871	,41997	15,4465	17,6056	15,63	18,27
15,00	6	15,1556	2,41423	,98560	12,6220	17,6891	11,28	18,30
20,00	6	12,2951	2,51406	1,02636	9,6567	14,9334	7,90	15,51
25,00	6	8,4328	5,26750	2,15045	2,9049	13,9607	1,46	14,39
35,00	6	8,4401	3,05541	1,24737	5,2336	11,6465	5,13	11,92
45,00	6	4,4605	3,82166	1,56019	,4499	8,4711	,71	10,48
60,00	6	5,4630	3,80482	1,55331	1,4701	9,4559	2,24	10,61
Total	66	14,7481	7,94622	,97811	12,7947	16,7016	,71	29,00

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3678,654	10	367,865	47,539	,000
Within Groups	425,599	55	7,738		
Total	4104,253	65			

VitaminC

Duncan^a

waktu	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
45,00	6	4,4605						
60,00	6	5,4630	5,4630					
25,00	6		8,4328					
35,00	6		8,4401					
20,00	6			12,2951				
15,00	6			15,1556	15,1556			
12,00	6				16,5261	16,5261		
9,00	6				18,2718	18,2718		
6,00	6					19,7202		
3,00	6						24,7745	
,00	6							28,6900
Sig.		,535	,085	,080	,071	,064	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Vitamin C dalam Air Rebusan

Tests of Normality

waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
vitaminC 3,00	,190	6	,200*	,913	6	,454
9,00	,243	6	,200*	,851	6	,160
15,00	,292	6	,120	,883	6	,281
35,00	,213	6	,200*	,919	6	,495
60,00	,287	6	,133	,920	6	,504

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptives

waktu	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
3,00	6	2,4037	,29010	,11843	2,0992	2,7081	2,06	2,75
9,00	6	3,0944	,46347	,18921	2,6080	3,5807	2,70	3,94
15,00	6	2,9057	,64707	,26417	2,2266	3,5847	2,20	4,09
35,00	6	1,6779	,18760	,07659	1,4811	1,8748	1,46	1,93
60,00	6	,7593	,18508	,07556	,5650	,9535	,52	1,06
Total	30	2,1682	,94742	,17297	1,8144	2,5219	,52	4,09

ANOVA

vitaminC	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22,095	4	5,524	35,088	,000
Within Groups	3,936	25	,157		
Total	26,030	29			

vitaminc

Duncan^a

waktu	N	Subset for alpha = .05			
		1	2	3	4
60,00	6	,7593			
35,00	6		1,6779		
3,00	6			2,4037	
15,00	6				2,9057
9,00	6				3,0944
Sig.		1,000	1,000	1,000	,418

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Aktivitas Antioksidan dalam Sawi Putih

Tests of Normality

waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
antioksidan ,00	,245	6	,200*	,891	6	,323
3,00	,307	6	,080	,772	6	,032
6,00	,164	6	,200*	,980	6	,951
9,00	,232	6	,200*	,903	6	,390
12,00	,271	6	,192	,865	6	,206
15,00	,216	6	,200*	,932	6	,596
20,00	,186	6	,200*	,928	6	,563
25,00	,170	6	,200*	,955	6	,780
35,00	,216	6	,200*	,955	6	,777
45,00	,188	6	,200*	,957	6	,799
60,00	,246	6	,200*	,922	6	,520

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptives

VitaminC

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
,00	6	45,5006	2,84513	1,16152	42,5148	48,4863	42,61	50,70
3,00	6	41,6891	12,94276	5,28386	28,1065	55,2717	29,40	55,80
6,00	6	37,8024	2,14753	,87673	35,5487	40,0561	35,12	41,07
9,00	6	34,2947	4,79903	1,95919	29,2584	39,3310	26,16	39,20
12,00	6	32,3755	3,22757	1,31765	28,9884	35,7626	28,87	36,26
15,00	6	27,7116	3,60425	1,47143	23,9292	31,4940	21,42	31,71
20,00	6	27,4037	7,29166	2,97681	19,7516	35,0559	18,38	36,26
25,00	6	19,4924	1,92485	,78582	17,4724	21,5124	16,89	21,88
35,00	6	10,3111	1,43852	,58727	8,8015	11,8208	7,90	12,14
45,00	6	3,9562	2,83128	1,15587	,9850	6,9275	,40	7,83
60,00	6	5,7194	1,23745	,50519	4,4208	7,0181	4,30	7,39
Total	66	26,0233	14,60791	1,79811	22,4323	29,6144	,40	55,80

ANOVA

antioksidan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12394,675	10	1239,467	46,194	,000
Within Groups	1475,752	55	26,832		
Total	13870,427	65			

antioksidan

Duncan^a

waktu	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
45,00	6	3,9562						
60,00	6	5,7194	5,7194					
35,00	6		10,3111					
25,00	6			19,4924				
20,00	6				27,4037			
15,00	6				27,7116			
12,00	6				32,3755	32,3755		
9,00	6					34,2947		
6,00	6					37,8024	37,8024	
3,00	6						41,6891	41,6891
,00	6							45,5006
Sig.		,558	,130	1,000	,122	,091	,199	,208

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Aktivitas Antioksidan Air Rebusan

Tests of Normality

	waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
antioksidan	3,00	,186	6	,200*	,958	6	,804
	9,00	,149	6	,200*	,970	6	,893
	15,00	,191	6	,200*	,976	6	,930
	35,00	,152	6	,200*	,986	6	,977
	60,00	,193	6	,200*	,934	6	,608

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptives

antioksidan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
3,00	6	4,8061	1,35878	,55472	3,3801	6,2320	3,21	7,01
9,00	6	9,5656	1,89547	,77382	7,5765	11,5548	7,31	12,62
15,00	6	6,2513	1,12152	,45786	5,0743	7,4282	4,70	7,83
35,00	6	2,6313	1,22416	,49976	1,3466	3,9160	1,06	4,51
60,00	6	,8751	,98684	,40287	-,1605	1,9107	-,19	2,58
Total	30	4,8259	3,29775	,60208	3,5945	6,0573	-,19	12,62

ANOVA

antioksidan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	269,533	4	67,383	36,744	,000
Within Groups	45,846	25	1,834		
Total	315,379	29			

antioksidan

Duncan^a

waktu	N	Subset for alpha = .05			
		1	2	3	4
60,00	6	,8751			
35,00	6		2,6313		
3,00	6			4,8061	
15,00	6			6,2513	
9,00	6				9,5656
Sig.		1,000	1,000	,076	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Fenol Dalam Sawi Putih

Descriptives

TotalFenol

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
,00	6	1212,2917	185,24661	75,62661	1017,8873	1406,6961	870,57	1360,86
3,00	6	758,2798	65,03675	26,55114	690,0279	826,5316	667,07	839,54
6,00	6	560,8690	97,72488	39,89601	458,3131	663,4250	485,18	737,79
9,00	6	696,2083	150,65965	61,50654	538,1007	854,3159	516,61	853,29
12,00	6	435,7440	18,10456	7,39116	416,7445	454,7436	407,39	457,29
15,00	6	473,5893	17,22265	7,03112	455,5152	491,6634	449,82	498,93
20,00	6	491,5952	28,43338	11,60788	461,7562	521,4342	437,25	513,07
25,00	6	446,2857	60,54080	24,71568	382,7520	509,8194	382,64	521,32
35,00	6	319,7202	20,29276	8,28448	298,4243	341,0162	300,14	357,89
45,00	6	316,6429	70,14101	28,63495	243,0344	390,2513	241,21	395,21
60,00	6	338,5119	50,19150	20,49060	285,8392	391,1847	268,71	386,18
Total	66	549,9762	264,61540	32,57190	484,9256	615,0268	241,21	1360,86

Tests of Normality

Waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
TotalFenol	,00	,211	6	,200*	,836	6	,122
	3,00	,162	6	,200*	,970	6	,895
	6,00	,295	6	,111	,818	6	,084
	9,00	,279	6	,158	,839	6	,129
	12,00	,227	6	,200*	,944	6	,694
	15,00	,126	6	,200*	,994	6	,997
	20,00	,279	6	,158	,785	6	,043
	25,00	,218	6	,200*	,861	6	,192
	35,00	,255	6	,200*	,849	6	,154
	45,00	,242	6	,200*	,843	6	,137
	60,00	,279	6	,157	,866	6	,209

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

ANOVA

TotalFenol

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4132668	10	413266,828	54,284	,000
Within Groups	418716,7	55	7613,032		
Total	4551385	65			

TotalFenol

Waktu	N	Subset for alpha = .05					
		1	2	3	4	5	6
45,00	6	316,6429					
35,00	6	319,7202					
60,00	6	338,5119	338,5119				
12,00	6		435,7440	435,7440			
25,00	6			446,2857			
15,00	6			473,5893	473,5893		
20,00	6			491,5952	491,5952		
6,00	6				560,8690		
9,00	6					696,2083	
3,00	6					758,2798	
,00	6						1212,2917
Sig.		,686	,059	,320	,107	,223	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Fenol dalam Air Rebusan

Descriptives

TotalFenol									
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
3,00	6	26,0595	14,26816	5,82495	11,0860	41,0330	2,75	42,04	
9,00	6	33,0000	19,93145	8,13698	12,0832	53,9168	3,93	64,43	
15,00	6	39,5476	8,08433	3,30042	31,0636	48,0316	30,25	51,46	
35,00	6	151,5774	26,72170	10,90909	123,5347	179,6201	124,14	193,29	
60,00	6	193,5476	64,35363	26,27226	126,0126	261,0826	131,61	259,29	
Total	30	88,7464	77,44660	14,13975	59,8274	117,6655	2,75	259,29	

ANOVA

TotalFenol					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	146333,1	4	36583,280	33,127	,000
Within Groups	27608,192	25	1104,328		
Total	173941,3	29			

TotalFenol

Duncan ^a				
Waktu	N	Subset for alpha = .05		
		1	2	3
3,00	6	26,0595		
9,00	6	33,0000		
15,00	6	39,5476		
35,00	6		151,5774	
60,00	6			193,5476
Sig.		,514	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Tests of Normality

Waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TotalFenol 3,00	,229	6	,200*	,933	6	,607
9,00	,180	6	,200*	,976	6	,928
15,00	,164	6	,200*	,956	6	,787
35,00	,259	6	,200*	,895	6	,347
60,00	,294	6	,113	,751	6	,021

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Kadar Air

Tests of Normality

Waktu	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarAir ,00	,192	6	,200*	,925	6	,541
3,00	,235	6	,200*	,959	6	,813
6,00	,308	6	,079	,836	6	,122
9,00	,174	6	,200*	,913	6	,455
12,00	,238	6	,200*	,944	6	,694
15,00	,270	6	,197	,883	6	,282
20,00	,291	6	,122	,806	6	,067
25,00	,238	6	,200*	,940	6	,663
35,00	,304	6	,088	,830	6	,108
45,00	,289	6	,129	,860	6	,188
60,00	,184	6	,200*	,952	6	,756

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
,00	6	,9568	,00536	,00219	,9511	,9624	,95	,96
3,00	6	,9557	,01243	,00508	,9426	,9687	,94	,97
6,00	6	,9479	,01506	,00615	,9321	,9637	,92	,96
9,00	6	,9572	,00603	,00246	,9509	,9635	,95	,96
12,00	6	,9519	,00727	,00297	,9443	,9596	,94	,96
15,00	6	,9598	,00496	,00202	,9546	,9650	,95	,97
20,00	6	,9578	,00829	,00339	,9491	,9665	,95	,96
25,00	6	,9542	,01190	,00486	,9417	,9667	,94	,97
35,00	6	,9534	,01389	,00567	,9389	,9680	,93	,96
45,00	6	,9504	,01441	,00588	,9352	,9655	,93	,96
60,00	6	,9610	,00444	,00181	,9564	,9657	,96	,97
Total	66	,9551	,01017	,00125	,9526	,9576	,92	,97

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,001	10	,000	,911	,530
Within Groups	,006	55	,000		
Total	,007	65			

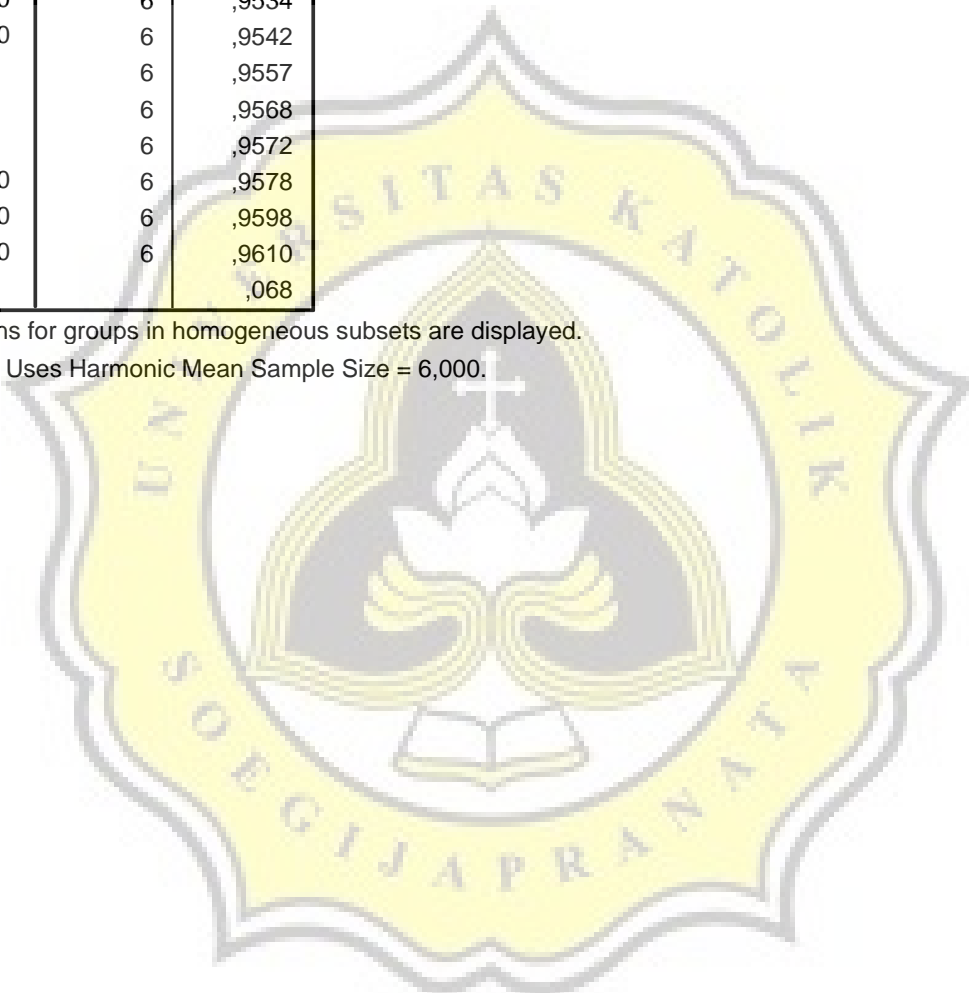
KadarAir

Duncan^a

Waktu	N	Subset for alpha = .05
		1
6,00	6	,9479
45,00	6	,9504
12,00	6	,9519
35,00	6	,9534
25,00	6	,9542
3,00	6	,9557
,00	6	,9568
9,00	6	,9572
20,00	6	,9578
15,00	6	,9598
60,00	6	,9610
Sig.		,068

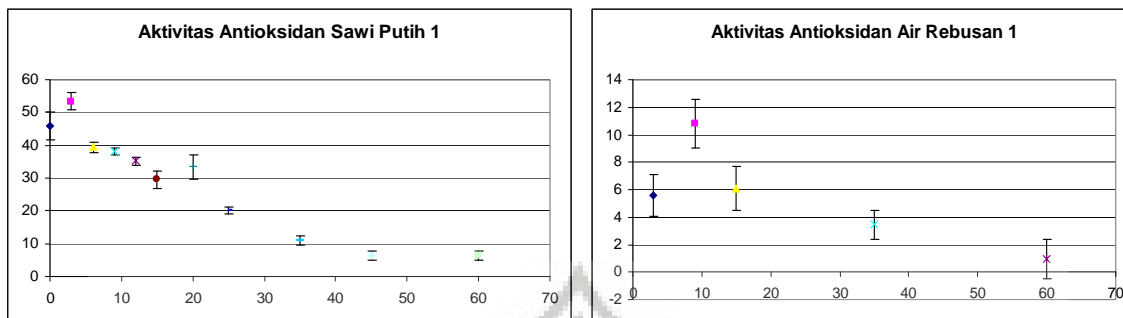
Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

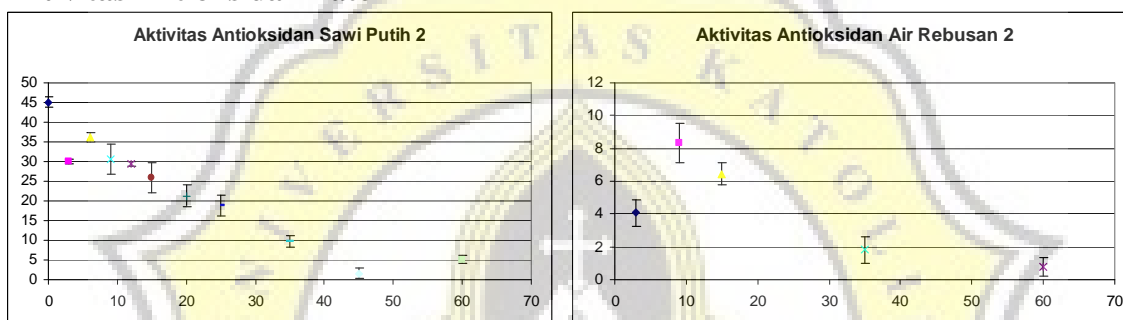


Lampiran 6 Grafik Aktivitas Antioksidan, Total Fenol dan Vitamin C

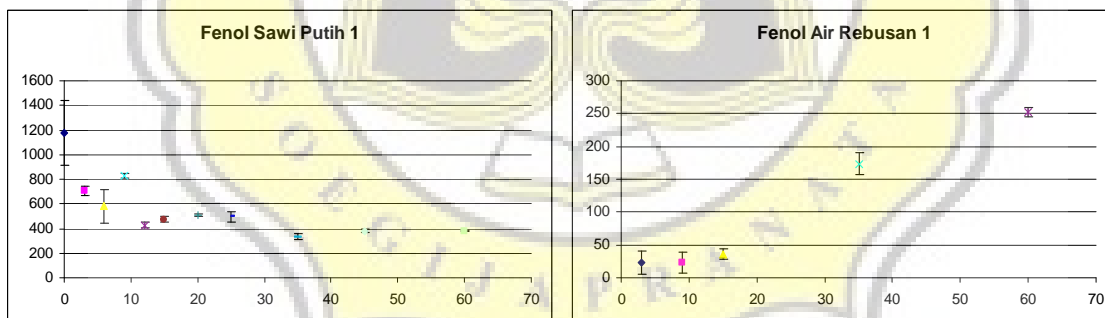
Aktivitas Antioksidan Batch 1



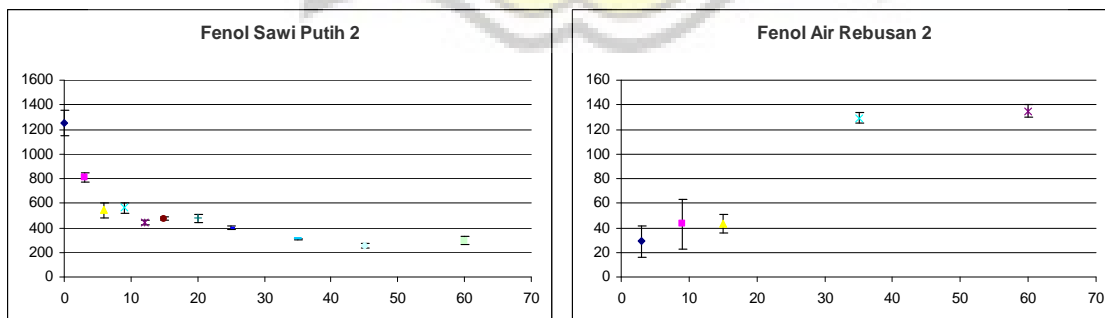
Aktivitas Antioksidan Batch 2



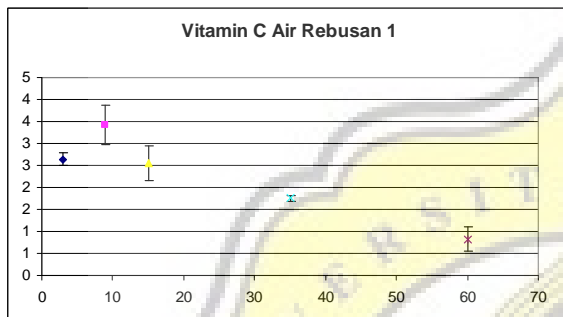
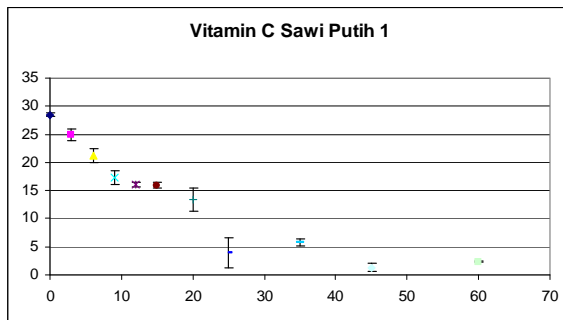
Fenol Batch 1



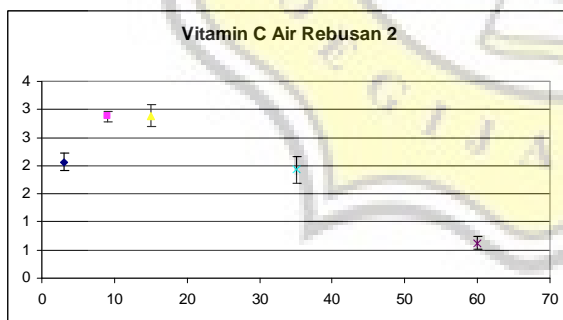
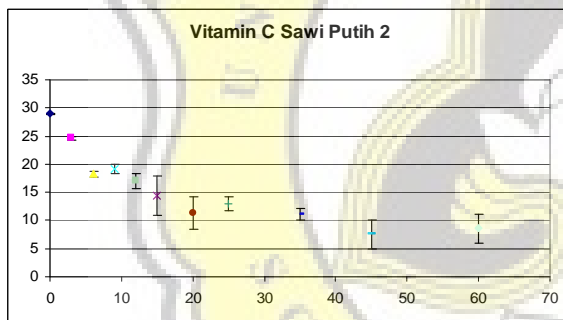
Fenol Batch 2



Vitamin C Batch 1



Vitamin C Batch 2



Kadar Air

