7. LAMPIRAN

7.1. Uji Normalitas dan Uji Beda Nyata

Asam Fitat pada Tepung dan Ekstrak

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TPG.AF	.140	30	.140	.925	30	.037

a Lilliefors Significance Correction

ANOVA

TPG.AF

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	171.570	4	42.892	118.078	.000
Within Groups	9.081	25	.363		
Total	180.651	29			

TPG.AF

Tukey HSD

PERLKUAN	N	Subset for alpha = .05				
		1	2	3	4	5
48 jam	6	1.0385				
36 jam	6		2.4460			
24 jam	6			4.3718		
12 jam	6				6.0857	
tanpa perendaman	6					7.6658
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 6.000.

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EKS.AF	.119	30	.200(*)	.943	30	.109

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

ANOVA

EKS.AF

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	198.813	4	49.703	193.576	.000
Within Groups	6.419	25	.257		
Total	205.232	29			

EKS.AF

Tukey HSD

PERLKUAN	N	Subset for alpha = .05				
		1	2	3	4	5
48 jam	6	1.9350				
36 jam	6		3.7667			
24 jam	6			5.3625		
12 jam	6				7.4458	
tanpa perendaman	6					9.1912
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 6.000.

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
TPG.AF	tanpa perendaman	6	7.6658	.35496	.14491	7.2933	8.0383	7.32	8.26
	12 jam	6	6.0857	.95711	.39074	5.0812	7.0901	4.82	6.99
	24 jam	6	4.3718	.56103	.22904	3.7831	4.9606	3.50	4.91
	36 jam	6	2.4460	.59053	.24108	1.8263	3.0657	1.47	2.98
	48 jam	6	1.0385	.33276	.13585	.6893	1.3877	.62	1.47
	Total	30	4.3216	2.49587	.45568	3.3896	5.2535	.62	8.26
EKS.AF	tanpa perendaman	6	9.1912	.35776	.14606	8.8157	9.5666	8.74	9.73
	12 jam	6	7.4458	.65968	.26931	6.7535	8.1381	6.33	8.07
	24 jam	6	5.3625	.59556	.24314	4.7375	5.9875	4.40	5.91
	36 jam	6	3.7667	.32905	.13433	3.4214	4.1120	3.31	4.21
	48 jam	6	1.9350	.50763	.20724	1.4023	2.4677	1.19	2.46
	Total	30	5.5402	2.66026	.48569	4.5469	6.5336	1.19	9.73

Aktivitas Antioksidan 500 ppm pada Tepung

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TPG. 500	.159	30	.051	.888	30	.004

a Lilliefors Significance Correction

ANOVA

TPG. 500

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.698	4	.175	536.455	.000
Within Groups	.008	25	.000		
Total	.706	29			

TPG 500 ppm

Tukey HSD

		Subset for alpha = .05				
PERLKUAN	N	1	2	3	4	5
48 jam	6	1.0719				
36 jam	6		1.1059			
24 jam	6			1.2191		
12 jam	6				1.3517	
tanpa perendaman	6					1.4796
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 6.000.

Aktivitas Antioksidan 250 ppm pada Tepung

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TPG.250	.120	30	.200(*)	.973	30	.632

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

ANOVA

TPG.250

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.214	4	.054	27.045	.000
Within Groups	.050	25	.002		
Total	.264	29			

TPG 250 ppm

Tukey HSD

PERLKUAN	N	Subset for alpha = .05		
		1	2	3
48 jam	6	.4678		
36 jam	6		.5581	
24 jam	6		.5632	
12 jam	6			.6462
tanpa perendaman	6			.7161
Sig.		1.000	1.000	.079

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 6.000.

Aktivitas Antioksidan 500 ppm pada Ekstrak

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EKS.500	.154	30	.068	.919	30	.025

a Lilliefors Significance Correction

ANOVA

EKS.500

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.233	4	.058	26.234	.000
Within Groups	.056	25	.002		
Total	.288	29			

EKS 500 ppm

Tukey HSD

PERLKUAN	N	Subset for alpha = .05		
		1	2	3
48 jam	6	1.5625		
36 jam	6	1.5866		
24 jam	6		1.6706	
12 jam	6			1.7620
tanpa perendaman	6			1.7791
Sig.		.899	1.000	.969

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 6.000.

Aktivitas Antioksidan 250 ppm pada Ekstrak

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EKS.250	.153	30	.069	.906	30	.012

a Lilliefors Significance Correction

ANOVA

EKS.250

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.041	4	.010	47.258	.000
Within Groups	.005	25	.000		
Total	.046	29			

EKS 250 ppm

Tukey HSD

PERLKUAN	N	Subset for alpha = .05		
		1	2	3
48 jam	6	.2725		
36 jam	6	.2786		
24 jam	6		.3248	
12 jam	6			.3531
tanpa perendaman	6			.3611
Sig.		.950	1.000	.880

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 6.000.

Oneway

Descriptives

TPG.500

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
tanpa perendaman	6	6.6053	.09224	.03766	6.5085	6.7021	6.51	6.73
12 jam	6	5.0220	.06989	.02853	4.9487	5.0953	4.91	5.10
24 jam	6	3.0478	.07182	.02932	2.9725	3.1232	2.96	3.16
36 jam	6	2.2020	.07803	.03185	2.1201	2.2839	2.11	2.32
48 jam	6	1.8158	.05696	.02325	1.7561	1.8756	1.73	1.91
Total	30	3.7386	1.84338	.33655	3.0503	4.4269	1.73	6.73

Descriptives

TPG.250

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
tanpa perendaman	6	5.0878	.18788	.07670	4.8907	5.2850	4.81	5.33
12 jam	6	4.2217	.07144	.02916	4.1467	4.2966	4.13	4.30
24 jam	6	1.8243	.08748	.03572	1.7325	1.9161	1.71	1.90
36 jam	6	1.4285	.06742	.02752	1.3577	1.4993	1.32	1.51
48 jam	6	.4770	.04555	.01859	.4292	.5248	.41	.52
Total	30	2.6079	1.78184	.32532	1.9425	3.2732	.41	5.33

Descriptives

EKS.500

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
tanpa perendaman	6	14.3862	.72987	.29797	13.6202	15.1521	13.37	15.48
12 jam	6	12.8548	.53081	.21670	12.2978	13.4119	12.08	13.30
24 jam	6	8.1710	.91934	.37532	7.2062	9.1358	6.76	8.82
36 jam	6	5.0893	.45662	.18641	4.6101	5.5685	4.69	5.99
48 jam	6	3.7952	.49058	.20028	3.2803	4.3100	3.05	4.16
Total	30	8.8593	4.28147	.78169	7.2606	10.4580	3.05	15.48

Descriptives

EKS.250

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
tanpa perendaman	6	10.1225	.68042	.27778	9.4084	10.8366	9.21	10.71
12 jam	6	9.3887	.66294	.27064	8.6930	10.0844	8.30	9.91
24 jam	6	5.8238	.67617	.27605	5.1142	6.5334	4.91	6.39
36 jam	6	3.3932	.58887	.24040	2.7752	4.0111	2.36	3.79
48 jam	6	2.6220	.29405	.12005	2.3134	2.9306	2.06	2.87
Total	30	6.2700	3.14626	.57443	5.0952	7.4449	2.06	10.71

7.2. Uji Regresi Nonlinear

Asam Fitat pada Tepung

All the derivatives will be calculated numerically.

Iteration	Residual SS	A	B	C	D
1	122.0989010	.000000000	.000000000	.000000000	.000000000
1.1	.0106395571	.000034095	-.00233482	-.10342163	7.65367143
2	.0106395571	.000034095	-.00233482	-.10342163	7.65367143
2.1	.0106395571	.000034095	-.00233482	-.10342162	7.65367142

Run stopped after 4 model evaluations and 2 derivative evaluations.
Iterations have been stopped because the relative reduction between successive
residual sums of squares is at most SSCON = 1.000E-08

Nonlinear Regression Summary Statistics Dependent Variable ASF_TPG

Source	DF	Sum of Squares	Mean Square
Regression	4	122.08826	30.52207
Residual	1	.01064	.01064
Uncorrected Total	5	122.09890	
(Corrected Total)	4	28.24179	

R squared = 1 - Residual SS / Corrected SS = .99962

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
A	.000034095	.000015730	-.000165777	.000233968
B	-.002334821	.001148647	-.016929764	.012260121
C	-.103421627	.021709797	-.379270752	.172427498
D	7.653671429	.102408805	6.352444189	8.954898668

Asymptotic Correlation Matrix of the Parameter Estimates

	A	B	C	D
A	1.0000	-.9860	.8973	-.3185
B	-.9860	1.0000	-.9553	.4038
C	.8973	-.9553	1.0000	-.5934
D	-.3185	.4038	-.5934	1.0000

Asam Fitat pada Ekstrak

All the derivatives will be calculated numerically.

Iteration	Residual SS	A	B	C	D
1	186.6136800	.000000000	.000000000	.000000000	.000000000
1.1	.0342329143	.000004919	-.00019891	-.15295238	9.21311429
2	.0342329143	.000004919	-.00019891	-.15295238	9.21311429
2.1	.0342329143	.000004919	-.00019891	-.15295234	9.21311421

Run stopped after 4 model evaluations and 2 derivative evaluations.
Iterations have been stopped because the relative reduction between successive
residual sums of squares is at most SSCON = 1.000E-08

Nonlinear Regression Summary Statistics Dependent Variable ASF_EKS

Source	DF	Sum of Squares	Mean Square
Regression	4	186.57945	46.64486
Residual	1	.03423	.03423
Uncorrected Total	5	186.61368	
(Corrected Total)	4	33.13352	

R squared = 1 - Residual SS / Corrected SS = .99897

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
A	4.91898E-06	.000028216	-.000353600	.000363438
B	-.000198909	.002060372	-.026378414	.025980596
C	-.152952381	.038941714	-.647753774	.341849013
D	9.213114286	.183695062	6.879047218	11.547181354

Asymptotic Correlation Matrix of the Parameter Estimates

	A	B	C	D
A	1.0000	-.9860	.8973	-.3185
B	-.9860	1.0000	-.9553	.4038
C	.8973	-.9553	1.0000	-.5934
D	-.3185	.4038	-.5934	1.0000

Aktivitas Antioksidan 500 ppm pada Tepung

All the derivatives will be calculated numerically.

Iteration	Residual SS	A	B	C	D
1	86.28347300	.000000000	.000000000	.000000000	.000000000
1.1	.0683281286	.000041040	-.00120784	-.13635020	6.63624286
2	.0683281286	.000041040	-.00120784	-.13635020	6.63624286
2.1	.0683281286	.000041040	-.00120784	-.13635018	6.63624283

Run stopped after 4 model evaluations and 2 derivative evaluations.
Iterations have been stopped because the relative reduction between successive
residual sums of squares is at most SSCON = 1.000E-08

Nonlinear Regression Summary Statistics Dependent Variable ANT5_TPG

Source	DF	Sum of Squares	Mean Square
Regression	4	86.21514	21.55379
Residual	1	.06833	.06833
Uncorrected Total	5	86.28347	
(Corrected Total)	4	16.39782	

R squared = 1 - Residual SS / Corrected SS = .99583

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
A	.000041040	.000039863	-.000465473	.000547553
B	-.001207837	.002910882	-.038194098	.035778424
C	-.136350198	.055016605	-.835402447	.562702050
D	6.636242857	.259522666	3.338694724	9.933790990

Asymptotic Correlation Matrix of the Parameter Estimates

	A	B	C	D
A	1.0000	-.9860	.8973	-.3185
B	-.9860	1.0000	-.9553	.4038
C	.8973	-.9553	1.0000	-.5934
D	-.3185	.4038	-.5934	1.0000

Aktivitas Antioksidan 500 ppm pada Ekstrak

All the derivatives will be calculated numerically.

Iteration	Residual SS	A	B	C	D
1	479.2732080	.000000000	.000000000	.000000000	.000000000
1.1	.2982251571	.000238281	-.01612649	.004425595	14.4512714
2	.2982251571	.000238281	-.01612649	.004425595	14.4512714

Run stopped after 3 model evaluations and 2 derivative evaluations.
Iterations have been stopped because the magnitude of the largest correlation
between the residuals and any derivative column is at most RCON = 1.000E-08

Nonlinear Regression Summary Statistics Dependent Variable ANT5_EKS

Source	DF	Sum of Squares	Mean Square
Regression	4	478.97498	119.74375
Residual	1	.29823	.29823
Uncorrected Total	5	479.27321	
(Corrected Total)	4	86.84608	

R squared = 1 - Residual SS / Corrected SS = .99657

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
A	.000238281	.000083281	-.000819907	.001296470
B	-.016126488	.006081307	-.093396818	.061143842
C	.004425595	.114938664	-1.456008601	1.464859792
D	14.451271429	.542185209	7.562155159	21.340387699

Asymptotic Correlation Matrix of the Parameter Estimates

	A	B	C	D
A	1.0000	-.9860	.8973	-.3185
B	-.9860	1.0000	-.9553	.4038
C	.8973	-.9553	1.0000	-.5934
D	-.3185	.4038	-.5934	1.0000

Aktivitas Antioksidan 250 ppm pada Tepung

All the derivatives will be calculated numerically.

Iteration	Residual SS	A	B	C	D
1	49.30957400	.000000000	.000000000	.000000000	.000000000
1.1	.5307003571	.000047020	-.00247718	-.08549107	5.17507143
2	.5307003571	.000047020	-.00247718	-.08549107	5.17507143

Run stopped after 3 model evaluations and 2 derivative evaluations.
Iterations have been stopped because the magnitude of the largest correlation
between the residuals and any derivative column is at most RCON = 1.000E-08

Nonlinear Regression Summary Statistics Dependent Variable ANT2_TPG

Source	DF	Sum of Squares	Mean Square
Regression	4	48.77887	12.19472
Residual	1	.53070	.53070
Uncorrected Total	5	49.30957	
(Corrected Total)	4	15.30125	

R squared = 1 - Residual SS / Corrected SS = .96532

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
A	.000047020	.000111096	-.001364593	.001458632
B	-.002477183	.008112401	-.105555008	.100600643
C	-.085491071	.153326997	-2.033695289	1.862713146
D	5.175071429	.723269606	-4.014940262	14.365083119

Asymptotic Correlation Matrix of the Parameter Estimates

	A	B	C	D
A	1.0000	-.9860	.8973	-.3185
B	-.9860	1.0000	-.9553	.4038
C	.8973	-.9553	1.0000	-.5934
D	-.3185	.4038	-.5934	1.0000

Aktivitas Antioksidan 250 ppm pada Ekstrak

All the derivatives will be calculated numerically.

Iteration	Residual SS	A	B	C	D
1	242.9145140	.000000000	.000000000	.000000000	.000000000
1.1	.1690514286	.000216628	-.01507242	.068115079	10.1711429
2	.1690514286	.000216628	-.01507242	.068115079	10.1711429

Run stopped after 3 model evaluations and 2 derivative evaluations.
Iterations have been stopped because the magnitude of the largest correlation
between the residuals and any derivative column is at most RCON = 1.000E-08

Nonlinear Regression Summary Statistics Dependent Variable ANT2_EKS

Source	DF	Sum of Squares	Mean Square
Regression	4	242.74546	60.68637
Residual	1	.16905	.16905
Uncorrected Total	5	242.91451	
(Corrected Total)	4	46.35001	

R squared = 1 - Residual SS / Corrected SS = .99635

Parameter	Estimate	Asymptotic Std. Error	Asymptotic 95 % Confidence Interval Lower	Upper
A	.000216628	.000062702	-.000580082	.001013338
B	-.015072421	.004578616	-.073249254	.043104412
C	.068115079	.086537321	-1.031445835	1.167675994
D	10.171142857	.408211228	4.984327415	15.357958300

Asymptotic Correlation Matrix of the Parameter Estimates

	A	B	C	D
A	1.0000	-.9860	.8973	-.3185
B	-.9860	1.0000	-.9553	.4038
C	.8973	-.9553	1.0000	-.5934
D	-.3185	.4038	-.5934	1.0000

7.3. Uji Korelasi

Correlations

		ASF_EKS	ANT5_EKS
ASF_EKS	Pearson Correlation	1	.954(**)
	Sig. (2-tailed)	.	.000
	N	30	30
ANT5_EKS	Pearson Correlation	.954(**)	1
	Sig. (2-tailed)	.000	.
	N	30	30

** Correlation is significant at the 0.01 level (2-tailed).

Correlations

		ASF_TPG	ANT5_TPG
ASF_TPG	Pearson Correlation	1	.943(**)
	Sig. (2-tailed)	.	.000
	N	30	30
ANT5_TPG	Pearson Correlation	.943(**)	1
	Sig. (2-tailed)	.000	.
	N	30	30

** Correlation is significant at the 0.01 level (2-tailed).

Correlations

		ASF_EKS	ANT2_EKS
ASF_EKS	Pearson Correlation	1	.943(**)
	Sig. (2-tailed)	.	.000
	N	30	30
ANT2_EKS	Pearson Correlation	.943(**)	1
	Sig. (2-tailed)	.000	.
	N	30	30

** Correlation is significant at the 0.01 level (2-tailed).

Correlations

		ASF_TPG	ANT2_TPG
ASF_TPG	Pearson Correlation	1	.946(**)
	Sig. (2-tailed)	.	.000
	N	30	30
ANT2_TPG	Pearson Correlation	.946(**)	1
	Sig. (2-tailed)	.000	.
	N	30	30

** Correlation is significant at the 0.01 level (2-tailed).