

7. LAMPIRAN

Lampiran 1. Tabel Rendemen

Batch	Maltodekstrin (gram)	Kec. Homogenisasi (rpm)	Berat Rendemen (gram)
1	2	3000	10.5
	4	3000	10.5
	6	3000	13
	2	3500	9.37
	4	3500	11.56
	6	3500	12.87
	2	4000	10
	4	4000	11.19
	6	4000	13
2	2	3000	10.5
	4	3000	12
	6	3000	12.5
	2	3500	10.5
	4	3500	11
	6	3500	13
	2	4000	10
	4	4000	12
	6	4000	13.5

Lampiran 2. Tabel Absorbansi Aktivitas Antioksidan

Batch	Maltodekstrin	Kec. Homogenisasi	Pengulangan	Absorbansi				
				Kontrol	1	2	3	Rata-rata
1	2	3000	1	0.5483	0.0304	0.0304	0.0306	0.0305
			2	0.5483	0.0293	0.0293	0.0294	0.0293
			3	0.5483	0.0288	0.0287	0.0286	0.0287
	4	3000	1	0.3315	0.0299	0.0299	0.0298	0.0299
			2	0.6047	0.0671	0.0672	0.0672	0.0672
			3	0.6138	0.0810	0.0807	0.0807	0.0808
	6	3000	1	0.5483	0.0359	0.0359	0.0359	0.0359
			2	0.5483	0.0298	0.0301	0.0297	0.0299
			3	0.5483	0.0294	0.0296	0.0296	0.0295
	2	3500	1	0.3315	0.0377	0.0375	0.0373	0.0375
			2	0.3315	0.0354	0.0348	0.0352	0.0351
			3	0.6049	0.0424	0.0426	0.0427	0.0426
	4	3500	1	0.6138	0.0477	0.0477	0.0478	0.0477
			2	0.6138	0.0650	0.0651	0.0650	0.0650
			3	0.6138	0.0407	0.0407	0.0410	0.0408
	6	3500	1	0.6138	0.0796	0.0799	0.0797	0.0797
			2	0.6138	0.0408	0.0410	0.0412	0.0410
			3	0.6138	0.0937	0.0936	0.0939	0.0937
	2	4000	1	0.5483	0.0294	0.0293	0.0294	0.0294
			2	0.5483	0.0292	0.0293	0.0293	0.0293
			3	0.5483	0.0300	0.0297	0.0298	0.0298
	4	4000	1	0.6138	0.0413	0.0414	0.0414	0.0414
			2	0.6138	0.0355	0.0359	0.0362	0.0359
			3	0.6047	0.1070	0.1069	0.1071	0.1070
6	4000	1	0.5483	0.0296	0.0295	0.0296	0.0296	
		2	0.5483	0.0298	0.0293	0.0296	0.0296	
		3	0.5483	0.0291	0.0292	0.0293	0.0292	
2	2	3000	1	0.5483	0.0313	0.0312	0.0314	0.0313
			2	0.5483	0.0293	0.0292	0.0291	0.0292
			3	0.5483	0.0289	0.0288	0.0285	0.0287
	4	3000	1	0.5530	0.0328	0.0328	0.0330	0.0329
			2	0.5500	0.0336	0.0335	0.0335	0.0335
			3	0.5500	0.0309	0.0309	0.0311	0.0310
	6	3000	1	0.5530	0.0311	0.0309	0.0310	0.0310
			2	0.5500	0.0328	0.0325	0.0327	0.0327
			3	0.5500	0.0320	0.0320	0.0319	0.0320
	2	3500	1	0.5530	0.0301	0.0299	0.0301	0.0300
			2	0.5500	0.0309	0.0306	0.0308	0.0308
			3	0.5500	0.0306	0.0305	0.0300	0.0304
	4	3500	1	0.5530	0.0242	0.0243	0.0237	0.0241
			2	0.5500	0.0316	0.0320	0.0322	0.0319
			3	0.5500	0.0344	0.0347	0.0341	0.0344
	6	3500	1	0.5530	0.0302	0.0301	0.0301	0.0301
			2	0.5500	0.0326	0.0324	0.0326	0.0325
			3	0.5500	0.0337	0.0333	0.0332	0.0334
	2	4000	1	0.5530	0.0296	0.0296	0.0299	0.0297
			2	0.5500	0.0318	0.0318	0.0316	0.0317
			3	0.5500	0.0305	0.0305	0.0305	0.0305
	4	4000	1	0.5530	0.0681	0.0680	0.0683	0.0681
			2	0.5500	0.0664	0.0663	0.0664	0.0664
			3	0.5500	0.0734	0.0736	0.0735	0.0735
6	4000	1	0.5530	0.0291	0.0292	0.0292	0.0292	
		2	0.5500	0.0335	0.0331	0.0335	0.0334	

			3	0.5500	0.0321	0.0321	0.0319	0.0320
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Lampiran 3. Tabel Normalitas

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
moisture	.100	54	.200 [*]	.961	54	.079

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

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
aw	.122	36	.194	.955	36	.150

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
warna_l	.129	36	.139	.951	36	.111

a. Lilliefors Significance Correction

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
warna_b	.087	54	.200 [*]	.958	54	.057

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

a. Lilliefors Significance Correction

Lampiran 4. Tabel Homogenitas

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
moisture	Based on Mean	.662	8	45	.722
	Based on Median	.575	8	45	.792
	Based on Median and with adjusted df	.575	8	34.782	.791
	Based on trimmed mean	.646	8	45	.735

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
aw	Based on Mean	16.956	8	27	.000
	Based on Median	13.365	8	27	.000
	Based on Median and with adjusted df	13.365	8	9.445	.000
	Based on trimmed mean	16.900	8	27	.000

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
warna_l	Based on Mean	13.791	8	27	.000
	Based on Median	10.430	8	27	.000
	Based on Median and with adjusted df	10.430	8	10.541	.000
	Based on trimmed mean	13.531	8	27	.000

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
warna_b	Based on Mean	18.834	8	45	.000
	Based on Median	11.592	8	45	.000
	Based on Median and with adjusted df	11.592	8	20.918	.000
	Based on trimmed mean	17.772	8	45	.000

Lampiran 5. Tabel One Way ANOVA

ANOVA

moisture

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.302	8	.413	1.771	.108
Within Groups	10.489	45	.233		
Total	13.791	53			

ANOVA

aw

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.007	8	.001	3.720	.005
Within Groups	.006	27	.000		
Total	.013	35			

ANOVA

warna_l

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51.455	8	6.432	1.482	.210
Within Groups	117.148	27	4.339		
Total	168.604	35			

ANOVA

warna_b

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	83.668	8	10.459	3.541	.003
Within Groups	132.916	45	2.954		
Total	216.584	53			

Lampiran 6. Tabel Duncan

kolom1

kolom2

Duncan^a

kombinasi1k	N	Subset for alpha = 0.05
		1
3000 rpm 4 md	6	7.2317
3000 rpm 6 md	6	7.4767
3000 rpm 2 md	6	7.7883
Sig.		.095

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Duncan^a

kombinasi2k	N	Subset for alpha = 0.05
		1
3500 rpm 2 md	6	5.7333
3500 rpm 4 md	6	6.1217
3500 rpm 6 md	6	6.7750
Sig.		.267

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

kolom3Duncan^a

kombinasi3k	N	Subset for alpha = 0.05	
		1	2
4000 rpm 2 md	6	6.9117	
4000 rpm 6 md	6		7.5417
4000 rpm 4 md	6		7.5867
Sig.		1.000	.847

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

baris1Duncan^a

kombinasi1b	N	Subset for alpha = 0.05	
		1	2
4000 rpm 2 md	6	6.9117	
3500 rpm 2 md	6	7.4700	7.4700
3000 rpm 2 md	6		7.7883
Sig.		.052	.248

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

baris2**baris3**Duncan^a

kombinasi2b	N	Subset for alpha = 0.05
		1
3500 rpm 4 md	6	7.2233
3000 rpm 4 md	6	7.2317
4000 rpm 4 md	6	7.5867
Sig.		.295

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Duncan^a

kombinasi3b	N	Subset for alpha = 0.05
		1
3000 rpm 6 md	6	7.4767
4000 rpm 6 md	6	7.5417
3500 rpm 6 md	6	7.6050
Sig.		.633

Means for groups in homogeneous subsets are displayed.

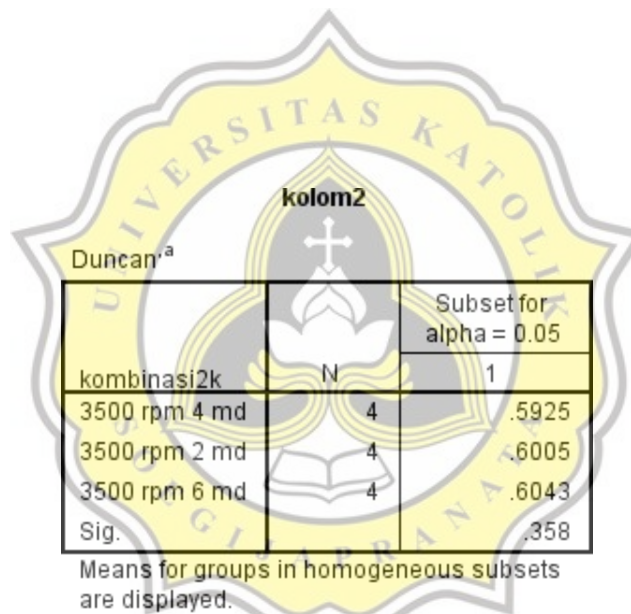
a. Uses Harmonic Mean Sample Size = 6.000.

kolom1Duncan^a

kombinasi1k	N	Subset for alpha = 0.05	
		1	2
3000 rpm 6 md	4	.5858	
3000 rpm 4 md	4	.5895	
3000 rpm 2 md	4		.6155
Sig.		.746	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.



kolom2

Duncan^a

kombinasi2k	N	Subset for alpha = 0.05
		1
3500 rpm 4 md	4	.5925
3500 rpm 2 md	4	.6005
3500 rpm 6 md	4	.6043
Sig.		.358

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

kolom3Duncan^a

kombinasi3k	N	Subset for alpha = 0.05	
		1	2
4000 rpm 2 md	4	.5668	
4000 rpm 6 md	4	.5800	
4000 rpm 4 md	4		.6020
Sig.		.174	1.000

Means for groups in homogeneous subsets are displayed.

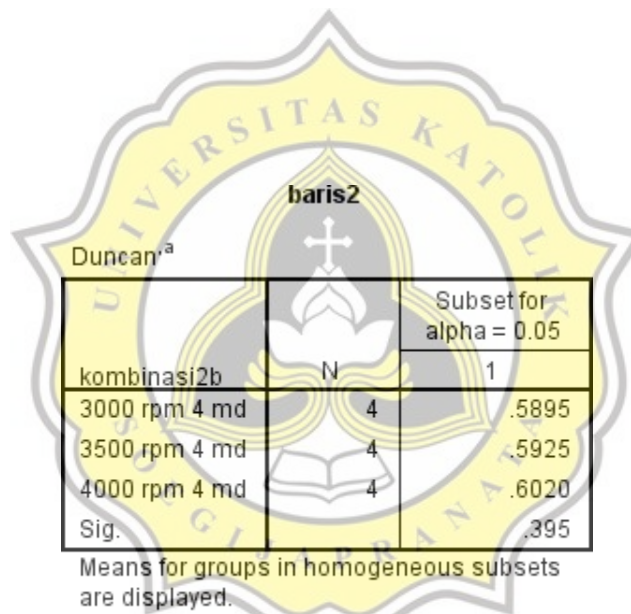
a. Uses Harmonic Mean Sample Size = 4.000.

baris1Duncan^a

kombinasi1b	N	Subset for alpha = 0.05	
		1	2
4000 rpm 2 md	4	.5668	
3500 rpm 2 md	4		.6005
3000 rpm 2 md	4		.6155
Sig.		1.000	.215

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.



baris2

Duncan^a

kombinasi2b	N	Subset for alpha = 0.05	
		1	
3000 rpm 4 md	4	.5895	
3500 rpm 4 md	4	.5925	
4000 rpm 4 md	4	.6020	
Sig.		.395	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

baris3Duncan^a

kombinasi3b	N	Subset for alpha = 0.05	
		1	2
4000 rpm 6 md	4	.5800	
3000 rpm 6 md	4	.5858	
3500 rpm 6 md	4		.6043
Sig.		.358	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

kolom1Duncan^a

kombinasi1k	N	Subset for alpha = 0.05	
		1	2
3000 rpm 4 md	4	87.9225	
3000 rpm 2 md	4	88.1225	
3000 rpm 6 md	4		91.0750
Sig.		.857	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

kolom2**kolom3**Duncan^a

kombinasi2k	N	Subset for alpha = 0.05		kombinasi3k	N	Subset for alpha = 0.05	
		1				1	
3500 rpm 2 md	4	87.1300		4000 rpm 4 md	4	87.7950	
4000 rpm 6 md	4	89.2800		4000 rpm 2 md	4	88.6775	
3500 rpm 4 md	4	89.7025		4000 rpm 6 md	4	90.0800	
Sig.		.091		Sig.		.282	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

baris1Duncan^a

kombinasi1b	N	Subset for alpha = 0.05
		1
3500 rpm 2 md	4	87.1300
3000 rpm 2 md	4	88.1225
4000 rpm 2 md	4	88.6775
Sig.		.445

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

baris2Duncan^a

kombinasi2b	N	Subset for alpha = 0.05
		1
4000 rpm 4 md	4	87.7950
3000 rpm 4 md	4	87.9225
3500 rpm 4 md	4	89.7025
Sig.		.106

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

baris3Duncan^a

kombinasi3b	N	Subset for alpha = 0.05
		1
3500 rpm 6 md	4	89.2800
4000 rpm 6 md	4	90.0800
3000 rpm 6 md	4	91.0750
Sig.		.261

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

kolom1**kolom2**Duncan^a

kombinasi2k	N	Subset for alpha = 0.05
		1
3500 rpm 6 md	6	22.3017
3500 rpm 4 md	6	22.9383
3500 rpm 2 md	6	23.9417
Sig.		.145

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

kolom3Duncan^a

kombinasi3k	N	Subset for alpha = 0.05
		1
4000 rpm 6 md	6	22.1450
4000 rpm 2 md	6	22.5333
4000 rpm 4 md	6	24.5717
Sig.		.081

Means for groups in homogeneous subsets are displayed.

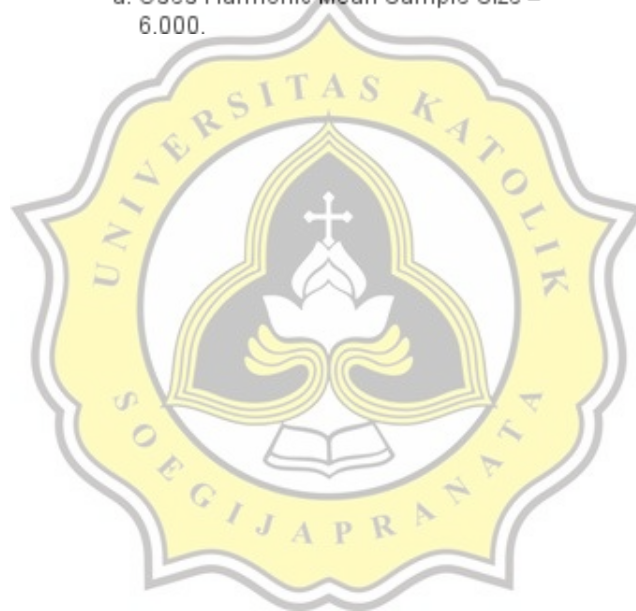
a. Uses Harmonic Mean Sample Size = 6.000.

baris1Duncan^a

kombinasi1b	N	Subset for alpha = 0.05
		1
4000 rpm 2 md	6	22.5333
3500 rpm 2 md	6	23.9417
3000 rpm 2 md	6	25.7000
Sig.		.053

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.



baris2Duncan^a

kombinasi2b	N	Subset for alpha = 0.05	
		1	2
3500 rpm 4 md	6	22.9383	
3000 rpm 4 md	6	23.4650	23.4650
4000 rpm 4 md	6		24.5717
Sig.		.427	.107

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

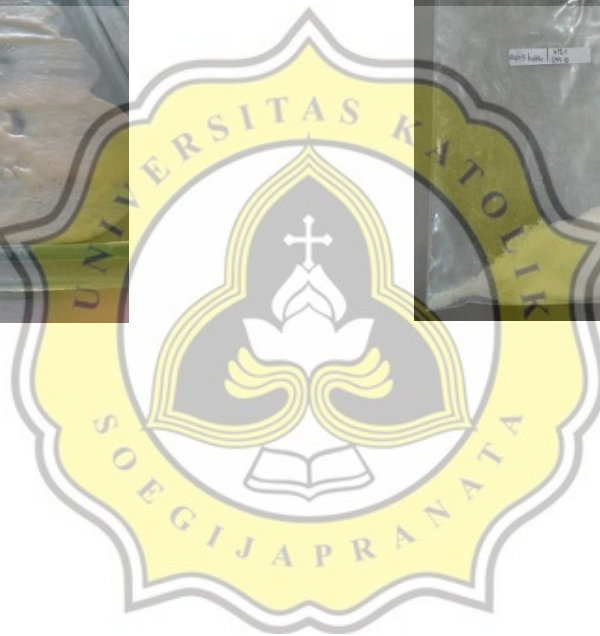
baris3Duncan^a

kombinasi3b	N	Subset for alpha = 0.05
		1
3000 rpm 6 md	6	21.5350
4000 rpm 6 md	6	22.1450
3500 rpm 6 md	6	22.3017
Sig.		.310

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Lampiran 6. Foto Kegiatan





2.72% PLAGIARISM
APPROXIMATELY

Report #10264760

PENDAHULUAN 1.1. Latar Belakang Indonesia merupakan salah satu negara pemasok rempah dunia, dimana pada tahun 2013, 21,06% dari total rempah dunia diekspor dari Indonesia (Hermawan, 2015). Tanaman pala (*Myristica fragrans* Houtt.) merupakan salah satu rempah khas Indonesia yang berasal dari kepulauan Banda, Indonesia merupakan negara yang mengekspor 60% dari biji dan full pala dunia (Nurdjannah, 2007). Pala di Indonesia diproduksi sebanyak 16 ribu ton pada tahun 2009 dan terjadi peningkatan menjadi 25.8ribu ton pada tahun 2013. Pada buah pala terdapat biji (nuts), daging buah, dan juga full (mace). Pala dapat diolah menjadi minyak, ekstrak dan juga lemak atau oleoresin (Maya, K, M; Zachariah, T, John; Krishnamoorthy, 2004). Biji pala mengandung sebanyak 2-5% minyak atsiri dan lemak sebanyak 30-40%, sedangkan pada full terdapat minyak atsiri sebanyak 7-18% dengan lemak sebanyak 20-30% (Astuti, 2019). Minyak pala atau minyak atsiri memiliki tingkat permintaan yang tinggi karena dapat digunakan dalam dalam bidang farmasi, kosmetik, produk pangan, dapat digunakan dalam pengobatan, menjadi penyedap alami dan menjadi bahan baku parfum (Sipahelut & Telussa, 2011). Terdapat beberapa manfaat dari minyak atsiri dan oleoresin yakni dapat menjadi pemberi cita rasa dalam industri pangan dan minuman, dapat dimanfaatkan untuk parfum, farmasi dan sebagai