

7. LAMPIRAN

Lampiran 1. Uji Normalitas

Tests of Normality

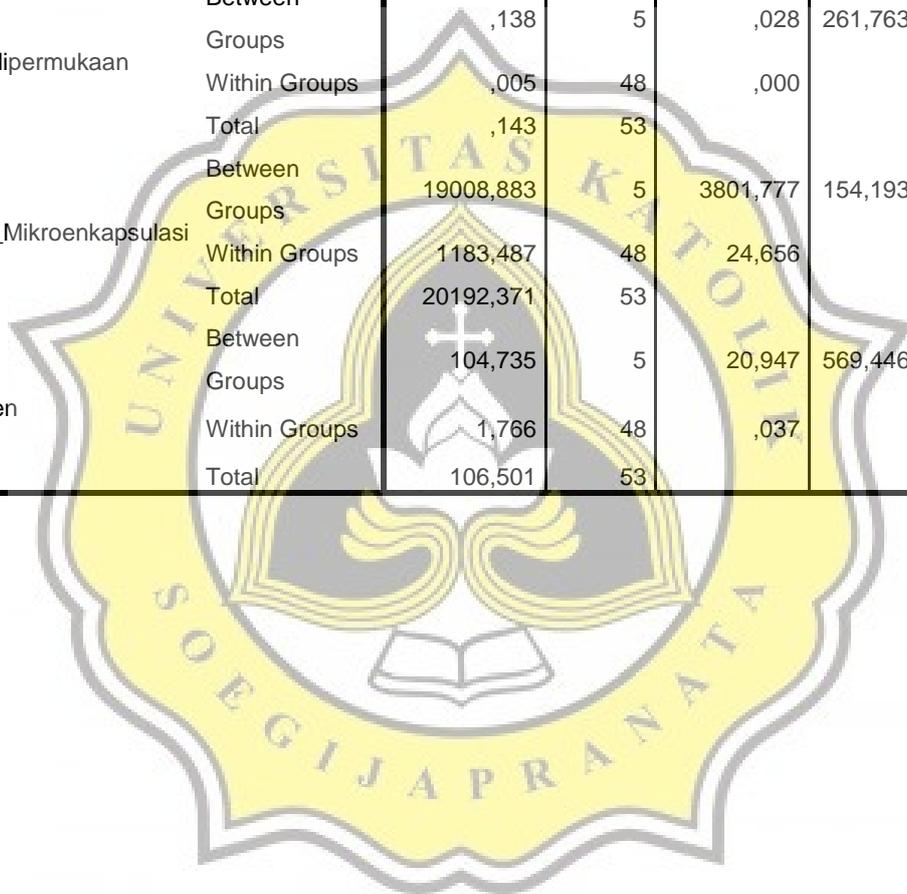
	JenisMinyak_KonsGlukomanan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Minyak_total	2gr M. Cengkeh + 3gr Glukomanan	,197	9	,200*	,904	9	,277
	2gr M. Cengkeh + 5gr Glukomanan	,170	9	,200*	,969	9	,884
	2gr M. Cengkeh + 7gr Glukomanan	,181	9	,200*	,952	9	,712
	2gr M. Ikan + 3gr Glukomanan	,235	9	,166	,895	9	,226
	2gr M. Ikan + 5gr Glukomanan	,181	9	,200*	,945	9	,634
Minyak_dipermukaan	2gr M. Ikan + 7gr Glukomanan	,157	9	,200*	,917	9	,369
	2gr M. Cengkeh + 3gr Glukomanan	,217	9	,200*	,882	9	,166
	2gr M. Cengkeh + 5gr Glukomanan	,190	9	,200*	,956	9	,757
	2gr M. Cengkeh + 7gr Glukomanan	,240	9	,143	,851	9	,076
	2gr M. Ikan + 3gr Glukomanan	,141	9	,200*	,930	9	,486
Efisiensi_Mikroenkapsulasi	2gr M. Ikan + 5gr Glukomanan	,097	9	,200*	,992	9	,998
	2gr M. Ikan + 7gr Glukomanan	,151	9	,200*	,927	9	,457
	2gr M. Cengkeh + 3gr Glukomanan	,180	9	,200*	,935	9	,529
	2gr M. Cengkeh + 5gr Glukomanan	,144	9	,200*	,959	9	,787
	2gr M. Cengkeh + 7gr Glukomanan	,244	9	,129	,876	9	,141
Rendemen	2gr M. Ikan + 3gr Glukomanan	,234	9	,169	,868	9	,117
	2gr M. Ikan + 5gr Glukomanan	,247	9	,121	,823	9	,037
	2gr M. Ikan + 7gr Glukomanan	,232	9	,179	,878	9	,148
	2gr M. Cengkeh + 3gr Glukomanan	,285	9	,034	,832	9	,047
	2gr M. Cengkeh + 5gr Glukomanan	,276	9	,046	,831	9	,046
	2gr M. Cengkeh + 7gr Glukomanan	,171	9	,200*	,931	9	,489
	2gr M. Ikan + 3gr Glukomanan	,186	9	,200*	,940	9	,586
	2gr M. Ikan + 5gr Glukomanan	,195	9	,200*	,930	9	,486
	2gr M. Ikan + 7gr Glukomanan	,233	9	,172	,876	9	,143

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

a. Lilliefors Significance Correction

Lampiran 2. Hasil Analisis Ragam Satu Arah (*One Way ANOVA*)

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Minyak_total	Between Groups	,263	5	,053	486,305	,000
	Within Groups	,005	48	,000		
	Total	,268	53			
Minyak_dipermukaan	Between Groups	,138	5	,028	261,763	,000
	Within Groups	,005	48	,000		
	Total	,143	53			
Efisiensi_Mikroenkapsulasi	Between Groups	19008,883	5	3801,777	154,193	,000
	Within Groups	1183,487	48	24,656		
	Total	20192,371	53			
Rendemen	Between Groups	104,735	5	20,947	569,446	,000
	Within Groups	1,766	48	,037		
	Total	106,501	53			



Lampiran 3. Hasil Analisis Ragam Satu Arah (One Way ANOVA) dengan Uji Beda Post Hoc Metode Duncan

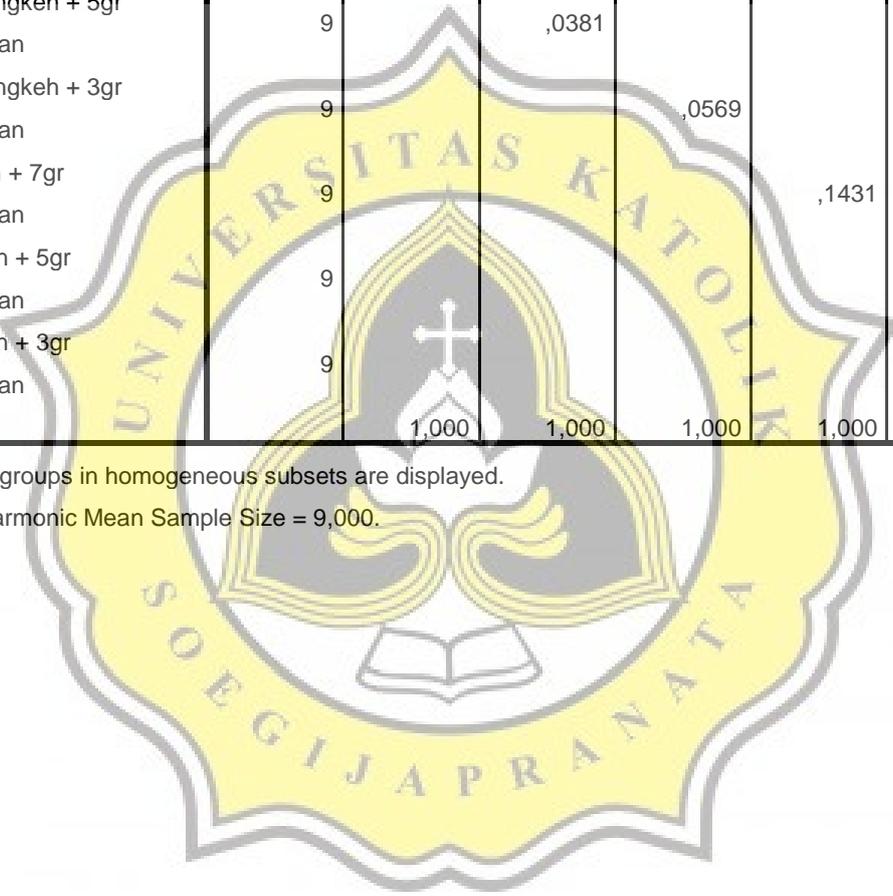
Minyak_total

Duncan

JenisMinyak_KonsGlukomanan	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
2gr M. Cengkeh + 7gr Glukomanan	9	,0156					
2gr M. Cengkeh + 5gr Glukomanan	9		,0381				
2gr M. Cengkeh + 3gr Glukomanan	9			,0569			
2gr M. Ikan + 7gr Glukomanan	9				,1431		
2gr M. Ikan + 5gr Glukomanan	9					,1606	
2gr M. Ikan + 3gr Glukomanan	9						,2047
Sig.		1,000	1,000	1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9,000.



Minyak_dipermukaan

Duncan

JenisMinyak_KonsGlukomanan	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
2gr M. Cengkeh + 7gr Glukomanan	9	,0072					
2gr M. Cengkeh + 5gr Glukomanan	9		,0268				
2gr M. Cengkeh + 3gr Glukomanan	9			,0511			
2gr M.Ikan + 7gr Glukomanan	9				,0699		
2gr M. Ikan + 5gr Glukomanan	9					,0896	
2gr M. Ikan + 3gr Glukomanan	9						,1638
Sig.		1,000	1,000	1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9,000.

Efisiensi_Mikroenkapsulasi

Duncan

JenisMinyak_KonsGlukomanan	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
2gr M. Cengkeh + 3gr Glukomanan	9	10,1939					
2gr M. Ikan + 3gr Glukomanan	9		20,0367				
2gr M. Cengkeh + 5gr Glukomanan	9			29,8546			
2gr M. Ikan + 5gr Glukomanan	9				43,8833		
2gr M. Cengkeh + 7gr Glukomanan	9					53,5874	
2gr M.Ikan + 7gr Glukomanan	9						64,0596
Sig.		1,000	1,000	1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9,000.

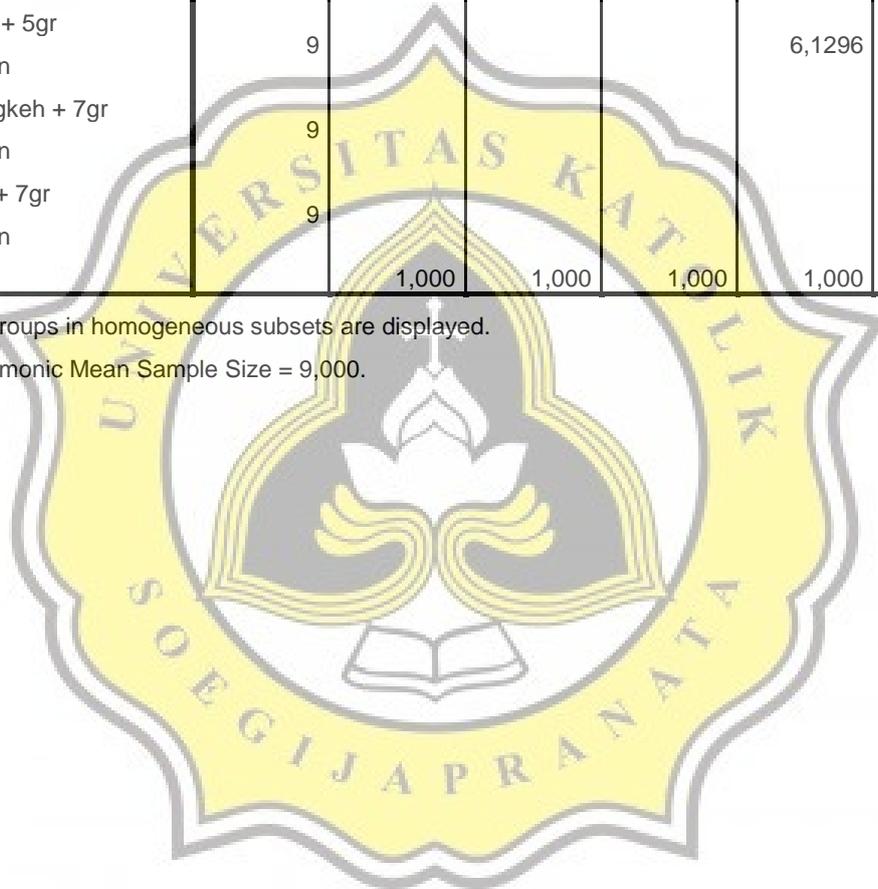
Rendemen

Duncan

JenisMinyak_KonsGlukomanan	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
2gr M. Cengkeh + 3gr Glukomanan	9	3,8881					
2gr M. Ikan + 3gr Glukomanan	9		4,5007				
2gr M. Cengkeh + 5gr Glukomanan	9			5,6496			
2gr M. Ikan + 5gr Glukomanan	9				6,1296		
2gr M. Cengkeh + 7gr Glukomanan	9					7,3632	
2gr M. Ikan + 7gr Glukomanan	9						7,7379
Sig.		1,000	1,000	1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9,000.



Lampiran 4. Uji Independent Sample T-Test

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Minyak_total	Equal variances assumed	25,731	,000	-22,047	16	,000	-,14778	,00670	-,16199	-,13357	
	Equal variances not assumed			-22,047	9,155	,000	-,14778	,00670	-,16290	-,13265	
Minyak_dipermukaan	Equal variances assumed	7,005	,018	-17,214	16	,000	-,11267	,00655	-,12654	-,09879	
	Equal variances not assumed			-17,214	9,144	,000	-,11267	,00655	-,12744	-,09790	
Efisiensi_Mikroenkapsulasi	Equal variances assumed	3,061	,099	-6,892	16	,000	-9,84278	1,42809	-12,87020	-6,81536	
	Equal variances not assumed			-6,892	11,945	,000	-9,84278	1,42809	-12,95590	-6,72966	
Rendemen	Equal variances assumed	,024	,879	-12,768	16	,000	-,61256	,04798	-,71426	-,51085	
	Equal variances not assumed			-12,768	15,773	,000	-,61256	,04798	-,71438	-,51073	

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Minyak_total	Equal variances assumed	6,978	,018	-27,856	16	,000	-,12244	,00440	-,13176	-,11313
	Equal variances not assumed			-27,856	9,455	,000	-,12244	,00440	-,13232	-,11257
Minyak_dipermukaan	Equal variances assumed	,994	,334	-28,814	16	,000	-,06278	,00218	-,06740	-,05816
	Equal variances not assumed			-28,814	14,381	,000	-,06278	,00218	-,06744	-,05812
Efisiensi_Mikroenkapsulasi	Equal variances assumed	,139	,714	-4,929	16	,000	-14,02878	2,84637	-20,06281	-7,99475
	Equal variances not assumed			-4,929	15,996	,000	-14,02878	2,84637	-20,06295	-7,99461
Rendemen	Equal variances assumed	1,048	,321	-5,158	16	,000	-,48000	,09306	-,67727	-,28273
	Equal variances not assumed			-5,158	11,259	,000	-,48000	,09306	-,68424	-,27576

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Minyak_total	Equal variances assumed	15,372	,001	-45,370	16	,000	-,12756	,00281	-,13352	-,12160
	Equal variances not assumed			-45,370	8,771	,000	-,12756	,00281	-,13394	-,12117
Minyak_dipermukaan	Equal variances assumed	10,630	,005	-13,169	16	,000	-,06267	,00476	-,07275	-,05258
	Equal variances not assumed			-13,169	8,114	,000	-,06267	,00476	-,07361	-,05172
Efisiensi_Mikroenkapsulasi	Equal variances assumed	,055	,818	-4,173	16	,001	-10,47211	2,50920	-15,79137	-5,15285
	Equal variances not assumed			-4,173	15,984	,001	-10,47211	2,50920	-15,79180	-5,15243
Rendemen	Equal variances assumed	1,237	,283	-3,217	16	,005	-,37467	,11646	-,62154	-,12779
	Equal variances not assumed			-3,217	12,652	,007	-,37467	,11646	-,62696	-,12237



8.34% PLAGIARISM
APPROXIMATELY

Report #11093754

PENDAHULUAN Latar Belakang Porang (*Amorphophallus oncophyllus*) merupakan jenis tumbuhan umbi-umbian yang dapat tumbuh di daerah tropis maupun sub-tropis. Tanaman ini banyak ditemui di Indonesia khususnya daerah Jawa Timur. Pada saat ini umbi porang lebih banyak ditanam untuk keperluan ekspor ke luar negeri terutama ke negara Cina dan Jepang untuk membuat tepung glukomanan (Sari dan Suhartati, 2015). Hasil panen porang tersebut diolah menjadi tepung porang kasar untuk diekspor sekitar 300 ton/tahun yang setara dengan US\$ 0,3 juta. Sebaliknya, untuk memenuhi kebutuhan tepung glukomanan di Indonesia, dilakukan impor glukomanan rata-rata 20 ton/tahun yang setara dengan devisa lebih dari US\$ 3 juta (Supraiti, 2016). Umbi porang berpotensi memiliki nilai ekonomi yang tinggi karena mengandung glukomanan dapat diolah menjadi bahan pangan (Sitompul et al., 2018). Salah satu karakteristik dari glukomanan adalah larut air dan dapat meningkatkan viskositas sehingga dapat menstabilkan sistem emulsi. Emulsi yang stabil dapat menjadi dasar bagi produksi mikrokapsul yang stabil terhadap oksidasi (Anwar et al., 2017). Oleh sebab itu, glukomanan dapat dimanfaatkan sebagai bahan penyalut mikrokapsul. Minyak atsiri cengkeh merupakan salah satu komponen aroma yang bersifat volatil, sehingga sensitif terhadap oksigen. Selain