7. LAMPIRAN

Lampiran 1. Media yang digunakan untuk pembuatan inokulum

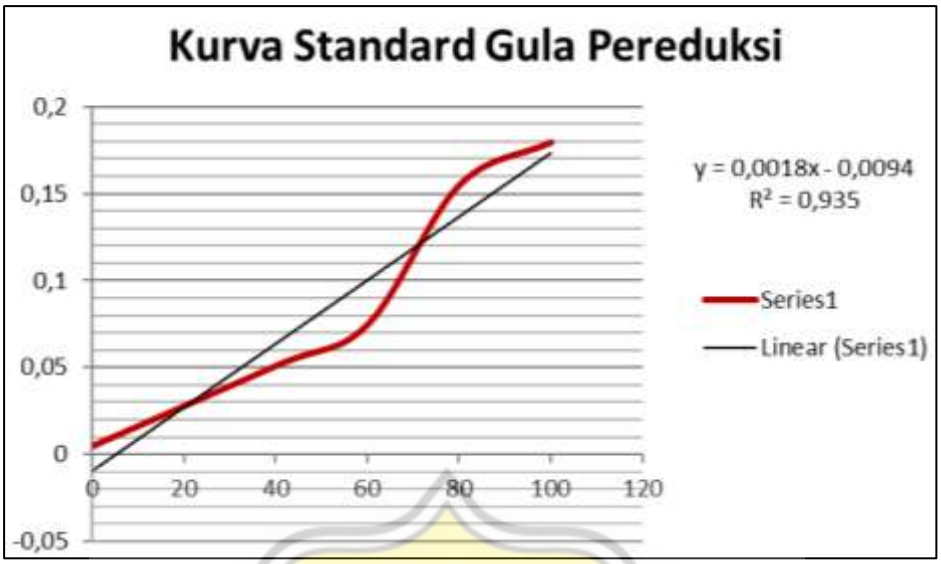
Media deMan Rogosa Sharpe Broth (MRS-B) "Merck"

Media dibuat dengan cara melarutkan 52,2 g bubuk media MRSB ke dalam 1 L aquades, kemudian diaduk dengan *stirrer* hingga terlarut sempurna. Setelah itu dilakukan sterilisasi media tersebut menggunakan *autoclave* dengan suhu 121°C selama 15 menit. Komposisi media ini antara lain: 10 g/L kasein atau daging pepton, 8 g/L ekstrak daging, 20 g/L D(+)- glukosa, 5 g/L *sodium acetate*, 4 g/L ekstrak ragi, 2 g/L *diammonium hydrogen citrate*, 2 g/L *dipotassium hydrogen phosphate*, 0,2 g/L magnesium sulfat, 0.04 g/L mangan sulfat, dan 1 g/L *Tween 80.*

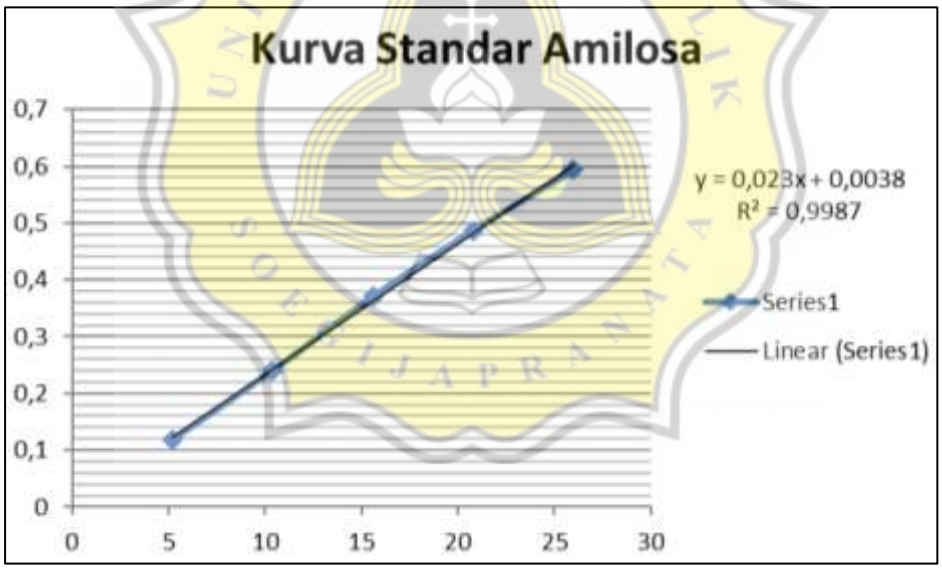
Lampiran 2. Komposisi Larutan Standar McFarland 2 dan 3

Larutan standar McFarland 2 dan 3 digunakan untuk menentukan jumlah bakteri *Lactobacillus pentosus* LLA18 dan *Lactobacillus fermentum* LLB3 pada pembuatan inokulum bakteri asam laktat. Larutan Mc Farland 2 setara dengan jumlah bakteri 6 x 10^8 CFU/mL. Larutan ini dibuat dengan mencampurkan 9,8 ml dari 1% H_2SO_4 dengan 0,2 ml dari 1% $BaCl_2$. Sedangkan larutan Mc Farland 3 setara dengan jumlah bakteri 9 x 10^8 CFU / mL. Larutan ini dibuat dengan mencampurkan 9,7 ml dari 1% H_2SO_4 dengan 0,3 ml dari 1% $BaCl_2$.

Lampiran 3. Kurva Standar Gula Pereduksi dan Standar Amilosa



Gambar 13. Kurva Standar Gula Pereduksi



Gambar 14. Kurva Standar Amilosa

Lampiran 4. Analisis Statistik Kadar Air

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarAir	,082	60	,200*	,981	60	,487

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarAir	Based on Mean	,181	1	58	,672
	Based on Median	,110	1	58	,741
	Based on Median and with adjusted df	,110	1	57,847	,741
	Based on trimmed mean	,190	1	58	,665

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarAir	Based on Mean	1,776	4	55	,147
	Based on Median	1,263	4	55	,296
	Based on Median and with adjusted df	1,263	4	44,308	,299
	Based on trimmed mean	1,696	4	55	,164

Uji Duncan

KadarAir

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05				
		1	2	3	4	5
LLA18 96 jam	6	5,8442				
LLA18 120 Jam	6	5,9756				
LLB3 72 jam	6	6,3463	6,3463			
LLA19 72 jam	6	6,3596	6,3596			
LLA18 24 Jam	6		7,5190	7,5190		
LLB3 120 jam	6			7,6393		
LLB3 96 jam	6			8,0761	8,0761	
LLA18 48 jam	6			8,5361	8,5361	8,5361
LLB3 24 jam	6				9,0836	9,0836
LLB3 48 jam	6					9,3923
Sig.		,412	,053	,104	,096	,157

Means for groups in homogeneous subsets are displayed.

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

Lampiran 5. Analisis Statistik Kadar Abu

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarAbu	,114	60	,053	,961	60	,051

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarAir	Based on Mean	1,776	4	55	,147
	Based on Median	1,263	4	55	,296
	Based on Median and with adjusted df	1,263	4	44,308	,299
	Based on trimmed mean	1,696	4	55	,164

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarAbu	Based on Mean	1,821	1	58	,182
	Based on Median	1,266	1	58	,265
	Based on Median and with adjusted df	1,266	1	55,820	,265
	Based on trimmed mean	1,797	1	58	,185

Uji Duncan

KadarAbu

Duncan[a]

		Subset for alpha = 0.05				
Bakteri_Hari	N	1	2	3	4	5
LLB3 72 jam	6	,0999				
LLB3 96 jam	6		,3165			
LLA18 120 Jam	6		,3332			
LLA18 96 jam	6		,3333			
LLB3 120 jam	6		,3832			
LLB3 48 jam	6			,5330		
LLA18 48 jam	6			,5497		
LLA18 72 jam	6				,6661	
LLB3 24 jam	6				,6666	
LLA18 24 Jam	6					,8992
Sig.		1,000	,245	,746	,993	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 6. Analisis Statistik Kadar Protein

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarProtein	,101	60	,200*	,962	60	,056

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarProtein	Based on Mean	4,769	1	58	,033
	Based on Median	1,861	1	58	,178
	Based on Median and with adjusted df	1,861	1	42,406	,180
	Based on trimmed mean	4,382	1	58	,041

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarProtein	Based on Mean	24,510	4	55	,000
	Based on Median	21,812	4	55	,000
	Based on Median and with adjusted df	21,812	4	47,362	,000
	Based on trimmed mean	24,488	4	55	,000

Uji Duncan

KadarProtein

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05									
		1	2	3	4	5	6	7	8	9	10
LLA18 24 Jam	6	5,4861									
LLA18 48 jam	6		6,5950								
LLA18 72 jam	6			8,1124							
LLA18 96 jam	6				9,3380						
LLA18 120 Jam	6					9,9216					
LLB3 48 jam	6						11,9059				
LLB3 24 jam	6							12,5479			
LLB3 72 jam	6								13,5401		
LLB3 96 jam	6									15,5828	
LLB3 120 jam	6										18,5593
Sig.		1,000	1,000	1,000	1,000	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 = 6,000.

Lampiran 7. Analisis Statistik Kadar Lemak

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarLemak	,078	60	,200*	,971	60	,163

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarLemak	Based on Mean	4,385	1	58	,041
	Based on Median	4,008	1	58	,050
	Based on Median and with adjusted df	4,008	1	57,689	,050
	Based on trimmed mean	4,226	1	58	,044

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarLemak	Based on Mean	6,060	4	55	,000
	Based on Median	4,736	4	55	,002
	Based on Median and with adjusted df	4,736	4	37,103	,003
	Based on trimmed mean	6,022	4	55	,000

Uji Duncan

KadarLemak

Duncan[a]

		Subset for alpha = 0.05						
Bakteri_Hari	N	1	2	3	4	5	6	7
LLB3 120 jam	6	1,9167						
LLA18 120 Jam	6		2,4167					
LLA18 96 jam	6		2,8000	2,8000				
LLB3 96 jam	6			2,9667				
LLA18 72 jam	6			3,1667	3,1667			
LLB3 72 jam	6			3,1833	3,1833			
LLB3 24 jam	6				3,5333	3,5333		
LLB3 48 jam	6					3,6500	3,6500	
LLA18 48 jam	6						4,0500	
LLA18 24 Jam	6							4,8333
Sig.		1,000	,070	,096	,099	,575	,059	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 8. Analisis Statistik Kadar Amilosa

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarAmilosa	,108	60	,079	,963	60	,066

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarAmilosa	Based on Mean	1,172	1	58	,283
	Based on Median	,595	1	58	,444
	Based on Median and with adjusted df	,595	1	57,530	,444
	Based on trimmed mean	1,215	1	58	,275

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarAmilosa	Based on Mean	2,354	4	55	,065
	Based on Median	1,094	4	55	,369
	Based on Median and with adjusted df	1,094	4	37,487	,374
	Based on trimmed mean	2,244	4	55	,076

Uji Duncan

KadarAmilosa

Duncan[a]

		Subset for alpha = 0.05			
Bakteri_Hari	N	1	2	3	4
LLA18 48 jam	6	17,7094			
LLA18 24 Jam	6	18,2138			
LLB3 24 jam	6	18,3879			
LLB3 48 jam	6		19,4679		
LLA18 72 jam	6		20,2780	20,2780	
LLB3 96 jam	6		20,3652	20,3652	
LLB3 72 jam	6			20,5990	
LLA18 96 jam	6			21,0692	
LLA18 120 Jam	6			21,2117	
LLB3 120 jam	6				22,4955
Sig.		,174	,073	,078	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 9. Analisis Statistik Kadar Gula Pereduksi

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KadarGulaPereduksi	,087	60	,200*	,965	60	,086

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarGulaPereduksi	Based on Mean	3,699	1	58	,059
	Based on Median	3,034	1	58	,087
	Based on Median and with adjusted df	3,034	1	49,120	,088
	Based on trimmed mean	3,664	1	58	,061

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KadarGulaPereduksi	Based on Mean	9,395	4	55	,000
	Based on Median	6,046	4	55	,000
	Based on Median and with adjusted df	6,046	4	37,223	,001
	Based on trimmed mean	9,139	4	55	,000

Uji Duncan

KadarGulaPereduksi

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05						
		1	2	3	4	5	6	7
LLA18 24 Jam	6	,1417						
LLA18 72 jam	6	,1540	,1540					
LLA18 96 jam	6		,1653	,1653				
LLA18 48 jam	6			,1800	,1800			
LLB3 48 jam	6				,1914	,1914		
LLA18 120 Jam	6					,2058		
LLB3 24 jam	6					,2076		
LLB3 96 jam	6						,2324	
LLB3 72 jam	6						,2506	
LLB3 120 jam	6							,2777
Sig.		,212	,251	,135	,247	,120	,069	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 10. Analisis Statistik Nilai pH

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pH	,071	60	,200*	,968	60	,112

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	,073	1	58	,788
	Based on Median	,109	1	58	,743
	Based on Median and with adjusted df	,109	1	57,998	,743
	Based on trimmed mean	,054	1	58	,817

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	4,249	4	55	,005
	Based on Median	3,698	4	55	,010
	Based on Median and with adjusted df	3,698	4	21,884	,019
	Based on trimmed mean	4,242	4	55	,005

Uji Duncan

pH

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05							
		1	2	3	4	5	6	7	8
LLB3 120 jam	6	3,6000							
LLB3 96 jam	6		3,7917						
LLB3 72 jam	6			3,8583					
LLB3 48 jam	6				3,9767				
LLA18 120 Jam	6				4,0350				
LLA18 48 jam	6					4,1100			
LLB3 24 jam	6					4,1583	4,1583		
LLA18 72 jam	6						4,2083		
LLA18 96 jam	6							4,2850	
LLA18 24 Jam	6								4,5400
Sig.		1,000	1,000	1,000	,060	,117	,105	1,000	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 11. Analisis Statistik Nilai Densitas Kamba

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DensitasKamba	,078	60	,200*	,966	60	,095

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
DensitasKamba	Based on Mean	12,486	1	58	,001
	Based on Median	10,193	1	58	,002
	Based on Median and with adjusted df	10,193	1	51,344	,002
	Based on trimmed mean	12,758	1	58	,001

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
DensitasKamba	Based on Mean	13,049	4	55	,000
	Based on Median	11,223	4	55	,000
	Based on Median and with adjusted df	11,223	4	51,736	,000
	Based on trimmed mean	12,976	4	55	,000

Uji Duncan

DensitasKamba

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05						
		1	2	3	4	5	6	7
LLA18 120 Jam	6	16,8333						
LLA18 48 jam	6		19,1667					
LLA18 72 jam	6			20,0833				
LLB3 120 jam	6			20,3333				
LLB3 72 jam	6				21,0833			
LLB3 48 jam	6					22,0833		
LLB3 96 jam	6						22,9167	
LLA18 24 Jam	6						23,3333	
LLA18 96 jam	6							24,3333
LLB3 24 jam	6							25,0000
Sig.		1,000	1,000	,468	1,000	1,000	,228	,057

Means for groups in homogeneous subsets are displayed.

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

Lampiran 12. Analisis Statistik Nilai Derajat Putih

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DerajatPutih	,088	60	,200*	,965	60	,080

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
DerajatPutih	Based on Mean	5,179	1	58	,027
	Based on Median	4,646	1	58	,035
	Based on Median and with adjusted df	4,646	1	57,865	,035
	Based on trimmed mean	5,040	1	58	,029

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
DerajatPutih	Based on Mean	,633	4	55	,641
	Based on Median	,373	4	55	,827
	Based on Median and with adjusted df	,373	4	36,664	,826
	Based on trimmed mean	,598	4	55	,666

Uji Duncan

DerajatPutih

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05				
		1	2	3	4	5
LLA18 24 Jam	6	-119,6333				
LLB3 24 jam	6	-111,3875				
LLA18 48 jam	6		-56,9061			
LLB3 48 jam	6		-54,2926			
LLA18 72 jam	6		-39,0362	-39,0362		
LLA18 96 jam	6			-22,0209		
LLB3 72 jam	6				7,3897	
LLA18 120 Jam	6				23,9245	
LLB3 96 jam	6				24,2758	
LLB3 120 jam	6					77,8307
Sig.		,494	,165	,162	,190	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 13. Analisis Statistik Kapasitas Penyerapan Air

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KapasitasPenyerapanAir	,080	60	,200*	,977	60	,311

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KapasitasPenyerapanAir	Based on Mean	1,426	1	58	,237
	Based on Median	1,316	1	58	,256
	Based on Median and with adjusted df	1,316	1	51,211	,257
	Based on trimmed mean	1,443	1	58	,234

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
KapasitasPenyerapanAir	Based on Mean	4,500	4	55	,003
	Based on Median	3,295	4	55	,017
	Based on Median and with adjusted df	3,295	4	38,116	,021
	Based on trimmed mean	4,328	4	55	,004

Uji Duncan

KapasitasPenyerapanAir

Duncan[a]

		Subset for alpha = 0.05			
Bakteri_Hari	N	1	2	3	4
LLB3 72 jam	6	,8137			
LLA18 72 jam	6	,8387	,8387		
LLB3 48 jam	6	,9180	,9180	,9180	
LLA18 120 Jam	6	,9374	,9374	,9374	
LLA18 48 jam	6		,9625	,9625	
LLB3 24 jam	6			1,0045	
LLB3 96 jam	6			1,0090	
LLA18 96 jam	6			1,0612	1,0612
LLB3 120 jam	6			1,0634	1,0634
LLA18 24 Jam	6				1,1888
Sig.		,095	,095	,063	,075

Means for groups in homogeneous subsets are displayed.

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

Lampiran 14. Analisis Statistik Kelarutan

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Kelarutan	,109	60	,073	,963	60	,063

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Kelarutan	Based on Mean	24,604	1	58	,000
	Based on Median	18,046	1	58	,000
	Based on Median and with adjusted df	18,046	1	47,473	,000
	Based on trimmed mean	24,134	1	58	,000

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Kelarutan	Based on Mean	16,325	4	55	,000
	Based on Median	13,528	4	55	,000
	Based on Median and with adjusted df	13,528	4	36,317	,000
	Based on trimmed mean	16,250	4	55	,000

Uji Duncan

Kelarutan

Duncan[a]

Bakteri_Hari	N	Subset for alpha = 0.05						
		1	2	3	4	5	6	7
LLA18 24 Jam	6	2,3251						
LLB3 48 jam	6		3,8053					
LLA18 72 jam	6		4,6667	4,6667				
LLB3 24 jam	6			5,6353				
LLB3 72 jam	6				6,7970			
LLB3 96 jam	6					7,9587		
LLB3 120 jam	6					8,6386	8,6386	
LLA18 120 Jam	6						9,2756	
LLA18 48 jam	6							10,6172
LLA18 96 jam	6							11,2970
Sig.		1,000	,138	,096	1,000	,239	,270	,239

Means for groups in homogeneous subsets are displayed.

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

Lampiran 15. Analisis Statistik *Swelling Volume*

Uji Normalitas Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SwellingPower	,073	60	,200*	,979	60	,400

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

a. Lilliefors Significance Correction

Uji Homogenitas Data dengan Jenis Bakteri

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
SwellingPower	Based on Mean	,061	1	58	,806
	Based on Median	,080	1	58	,779
	Based on Median and with adjusted df	,080	1	57,689	,779
	Based on trimmed mean	,074	1	58	,787

Uji Homogenitas Data dengan Waktu Fermentasi

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
SwellingPower	Based on Mean	1,169	4	55	,334
	Based on Median	,799	4	55	,531
	Based on Median and with adjusted df	,799	4	39,506	,533
	Based on trimmed mean	1,129	4	55	,352

Uji Duncan

SwellingPower

Duncan*

Bakteri_Hari	N	Subset for alpha = 0.05						
		1	2	3	4	5	6	7
LLA18 24 Jam	6	5,1666						
LLA18 48 jam	6		7,0233					
LLB3 24 jam	6			7,9898				
LLA18 72 jam	6			8,1184				
LLB3 48 jam	6			8,8563	8,8563			
LLA18 96 jam	6				9,7688	9,7688		
LLB3 72 jam	6					10,2405		
LLA18 120 Jam	6					10,3685		
LLB3 96 jam	6						11,4561	
LLB3 120 jam	6							12,6843
Sig.		1,000	1,000	,091	,061	,241	1,000	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 16. Analisis Statisti Indepenent T-test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
KadarAir	Equal variances assumed	,181	,672	-3,469	58	,001	-1,26062	,36334	-1,98793	-,53330
	Equal variances not assumed			-3,469	57,988	,001	-1,26062	,36334	-1,98793	-,53330
KadarAbu	Equal variances assumed	1,821	,182	2,716	58	,009	,15646	,05762	,04113	,27180
	Equal variances not assumed			2,716	56,379	,009	,15646	,05762	,04106	,27187
KadarLemak	Equal variances assumed	4,385	,041	1,860	58	,068	,40333	,21679	-,03063	,83729
	Equal variances not assumed			1,860	54,387	,068	,40333	,21679	-,03124	,83791
KadarProtein	Equal variances assumed	4,902	,031	-11,802	58	,000	-6,53660	,55384	-7,64522	-5,42798
	Equal variances not assumed			-11,802	51,794	,000	-6,53660	,55384	-7,64806	-5,42514
KadarAmilosa	Equal variances assumed	1,172	,283	-1,356	58	,180	-,56669	,41781	-1,40304	,26966
	Equal variances not assumed			-1,356	57,985	,180	-,56669	,41781	-1,40304	,26966
KadarGulaPereduksi	Equal variances assumed	3,698	,059	-7,736	58	,000	-,06256	,00809	-,07875	-,04637
	Equal variances not assumed			-7,736	51,400	,000	-,06256	,00809	-,07879	-,04633
pH	Equal variances assumed	,063	,802	7,318	58	,000	,35867	,04901	,26056	,45677
	Equal variances not assumed			7,318	57,771	,000	,35867	,04901	,26055	,45678
DensitasKamba	Equal variances assumed	12,486	,001	-2,518	58	,015	-1,53333	,60905	-2,75247	-,31419
	Equal variances not assumed			-2,518	47,010	,015	-1,53333	,60905	-2,75857	-,30810
DerajatPutih	Equal variances assumed	5,179	,027	-2,173	58	,034	-36,27158	16,69499	-67,76945	-2,77372
	Equal variances not assumed			-2,173	53,887	,034	-36,27158	16,69499	-67,82235	-2,72082
KapasitasPenyerapanAir	Equal variances assumed	1,428	,237	,924	58	,359	,03598	,03893	-,04194	,11391
	Equal variances not assumed			,924	53,464	,359	,03598	,03893	-,04208	,11405
Kelarutan	Equal variances assumed	24,604	,000	1,397	58	,168	1,06931	,76534	-,46268	2,60129
	Equal variances not assumed			1,397	42,979	,170	1,06931	,76534	-,47416	2,61277
SwellingPower	Equal variances assumed	,261	,606	-4,224	58	,000	-2,15628	,51048	-3,17910	-1,13445
	Equal variances not assumed			-4,224	57,986	,000	-2,15628	,51048	-3,17911	-1,13444

Lampiran 17. Analisis Statistik *One Way* ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
KadarAir	Between Groups	91,236	9	10,137	10,680	,000
	Within Groups	47,458	50	,949		
	Total	138,694	59			
KadarAbu	Between Groups	2,859	9	,318	40,033	,000
	Within Groups	,397	50	,008		
	Total	3,255	59			
KadarLemak	Between Groups	36,921	9	4,102	32,008	,000
	Within Groups	6,408	50	,128		
	Total	43,330	59			
KadarProtein	Between Groups	897,793	9	99,755	500,109	,000
	Within Groups	9,973	50	,199		
	Total	907,766	59			
KadarAmilosa	Between Groups	124,342	9	13,816	21,354	,000
	Within Groups	32,349	50	,647		
	Total	156,692	59			
KadarGulaPereduksi	Between Groups	,101	9	,011	39,958	,000
	Within Groups	,014	50	,000		
	Total	,116	59			
pH	Between Groups	3,881	9	,431	156,295	,000
	Within Groups	,138	50	,003		
	Total	4,019	59			
DensitasKamba	Between Groups	340,483	9	37,831	108,090	,000
	Within Groups	17,500	50	,350		
	Total	357,983	59			
DerajatPutih	Between Groups	209434,431	9	23270,492	54,068	,000
	Within Groups	21519,544	50	430,391		
	Total	230953,975	59			
KapasitasPenyerapanAir	Between Groups	,673	9	,075	5,625	,000
	Within Groups	,665	50	,013		
	Total	1,338	59			
Kelarutan	Between Groups	477,820	9	53,091	54,259	,000
	Within Groups	48,924	50	,978		
	Total	526,743	59			
SwellingPower	Between Groups	262,499	9	29,167	42,951	,000
	Within Groups	33,953	50	,679		
	Total	296,452	59			

Lampiran 18. Analisa Korelasi

Correlations

		KadarAir	KadarAbu	KadarProtein	KadarLemak	KadarAmilosa	GulaPereduksi	pH	DensitasKamba	DerajatPutih	KapasitasPenyerapanAir	Kelarutan	SwellingVolume
KadarAir	Pearson Correlation	1	,283*	,263*	,132	-,415**	,009	-,113	,275*	-,297*	,012	-,269*	-,181
	Sig. (2-tailed)		,029	,043	,314	,001	,943	,391	,034	,021	,929	,038	,166
	N	60	60	60	60	60	60	60	60	60	60	60	60
KadarAbu	Pearson Correlation	,283*	1	,599**	-,540**	-,550**	-,598**	,625**	,226	-,690**	,350**	-,525**	-,716**
	Sig. (2-tailed)	,029		,000	,000	,000	,000	,000	,082	,000	,006	,000	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
KadarProtein	Pearson Correlation	,263*	,599**	1	-,638**	-,787**	-,560**	,633**	,291*	-,761**	,216	-,495**	-,831**
	Sig. (2-tailed)	,043	,000		,000	,000	,000	,000	,024	,000	,097	,000	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
KadarLemak	Pearson Correlation	,132	-,540**	-,638**	1	,561**	,851**	-,873**	,075	,649**	-,089	,151	,802**
	Sig. (2-tailed)	,314	,000	,000		,000	,000	,000	,570	,000	,499	,250	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
KadarAmilosa	Pearson Correlation	-,415**	-,550**	-,787**	,561**	1	,472**	-,535**	-,241	,755**	-,115	,321*	,712**
	Sig. (2-tailed)	,001	,000	,000	,000		,000	,000	,064	,000	,382	,012	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
GulaPereduksi	Pearson Correlation	,009	-,598**	-,560**	,851**	,472**	1	-,846**	-,164	,652**	-,072	,288*	,729**
	Sig. (2-tailed)	,943	,000	,000	,000	,000		,000	,211	,000	,584	,026	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
pH	Pearson Correlation	-,113	,625**	,633**	-,873**	-,535**	-,846**	1	,296*	-,766**	,228	-,301*	-,797**
	Sig. (2-tailed)	,391	,000	,000	,000	,000	,000		,022	,000	,080	,019	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
DensitasKamba	Pearson Correlation	,275*	,226	,291*	,075	-,241	-,164	,296*	1	-,453**	,264*	-,258*	-,194
	Sig. (2-tailed)	,034	,082	,024	,570	,064	,211	,022		,000	,041	,046	,137
	N	60	60	60	60	60	60	60	60	60	60	60	60
DerajatPutih	Pearson Correlation	-,297*	-,690**	-,761**	,649**	,755**	,652**	-,766**	-,453**	1	-,113	,493**	,834**
	Sig. (2-tailed)	,021	,000	,000	,000	,000	,000	,000	,000		,390	,000	,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
KapasitasPenyerapanAir	Pearson Correlation	,012	,350**	,216	-,089	-,115	-,072	,228	,264*	-,113	1	-,003	-,176
	Sig. (2-tailed)	,929	,006	,097	,499	,382	,584	,080	,041	,390		,982	,179
	N	60	60	60	60	60	60	60	60	60	60	60	60
Kelarutan	Pearson Correlation	-,269*	-,525**	-,495**	,151	,321*	,288*	-,301*	-,258*	,493**	-,003	1	,439**
	Sig. (2-tailed)	,038	,000	,000	,250	,012	,026	,019	,046	,000	,982		,000
	N	60	60	60	60	60	60	60	60	60	60	60	60
SwellingVolume	Pearson Correlation	-,181	-,716**	-,831**	,802**	,712**	,729**	-,797**	-,194	,834**	-,176	,439**	1
	Sig. (2-tailed)	,166	,000	,000	,000	,000	,000	,000	,137	,000	,179	,000	
	N	60	60	60	60	60	60	60	60	60	60	60	60

*. Correlation is significant at the 0.05 level (2-tailed).

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

Lampiran 19. Perhitungan Rendemen Tepung Beras Merah Fermentasi Terbaik

$$\text{Rendemen \%} = \frac{berat\ tepung\ \ (g)}{berat\ beras\ merah\ (g)} \text{ x } 100\%$$

(Indriyani *et al*., 2013)

- Perhitungan rendemen tepung beras merah fementasi 120 jam menggunakan bakteri *Lactobacillus fermentum* (*batch* 1)

$$\text{Rendemen \%} = \frac{205\ g}{300\ g} \text{ x } 100\%$$

$$= 68{,}33\%$$

- Perhitungan rendemen tepung beras merah fementasi 120 jam menggunakan bakteri *Lactobacillus fermentum* (*batch* 2)

$$\text{Rendemen \%} = \frac{207\ g}{300\ g} \text{ x } 100\%$$

$$= 69\%$$

- Rata-rata perhitungan rendemen tepung beras merah fementasi 120 jam menggunakan bakteri *Lactobacillus fermentum batch* 1 dan *batch* 2

  Rata-rata rendemen (%) = (68,33 + 69) / 2

  = 68,67 %

YOVITA HARTONO

PLAGIARISM CHECK.ORG

7.93% PLAGIARISM APPROXIMATELY

Report #10513152

PENDAHULUAN Latar BelakangBeras diperoleh dari hasil pengolahan gabah yaitu biji padi yang telah dipisahkan dari tanaman padi (Oryza sativa L.). Beras dibedakan menjadi beberapa kelompok berdasarkan kandungan patinya. Pati dalam beras terdiri dari amilosa dan amilopektin yang menentukan kepulenan nasi. Semakin rendah kadar amilosa atau semakin tinggi kadar amilopektin, maka semakin lekat atau pulen nasi yang dihasilkan. 31 64 68 **Beras dengan kadar amilosa lebih dari 2% disebut beras bukan ketan atau beras biasa.** Berdasarkan kandungan amilosanya, beras (bukan ketan) digolongkan menjadi 4 golongan, yaitu beras beramilosa tinggi (25-33%), beras beramilosa sedang (20-25%), beras beramilosa rendah (9-20 %) dan beras dengan kadar amilosa sangat rendah (2-9%) (Koswara, 2009). Selain itu beras juga bisa dibedakan berdasarkan warnanya. Beberapa jenis beras yang dapat dibedakan berdasarkan warnanya yaitu beras putih, beras hitam, beras ketan dan beras merah. 21 **Beras merah (Oryza nivara) pada umumnya merupakan beras pecah kulit yang hanya dipisahkan bagian sekamnya (tanpa proses penyosohan) sehingga kulit arinya masih melekat pada endosperm.** Adanya proses tersebut maka beras merah masih memiliki lebih banyak kandungan gizi dibandingkan dengan beras putih. 21 **Kulit ari yang terdapat pada beras**