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LAMPIRAN 1.

Tabel.1. Hasil Analisa Total Padatan

Suhu (°C)	Lama Evaporasi (Jam)	Ulangan		Rata-rata
		I	II	
55	0	20,14	20,07	20,11
	2	31,09	31,05	31,07
	4	58,46	58,97	58,72
	6	64,98	65,87	65,43
60	0	30,51	26,93	28,72
	2	50,77	42,17	46,47
	4	58,2	62,77	60,49
	6	71,17	72,87	72,02
65	0	21,45	27,04	24,25
	2	50,37	47,98	49,17
	4	54,8	56,55	55,68
	5	74,46	77,9	77,18

Tabel. 1a. Rata-rata Hasil Analisa Total Padatan

Suhu (°C)	Lama Evaporasi (Jam)						Rata-rata
	Control	SA	2	4	5	6	
55	11,17	20,11	31,07	58,18	61,8	65,43	41,29
60	17,34	28,72	46,47	60,49	66,25	72,02	48,55
65	14,6	24,25	49,17	55,66	77,18		44,17
	37	24,36	42,42	58,29	68,41	68,72	



Tabel 1b. Anova Hasil Analisa Total Padatan

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	13794,892	14	985.349	180.835	0.00
Intercept	57919.414	1	57919.414	10629.606	0.00
Suhu	311.995	2	155.997	28.629	0.00*
Lama Evaporasi	13195.374	5	2639.075	484.334	0.00*
Suhu * Lama Evaporasi	249.168	7	35.595	6.533	0.00*
Error	81.733	15	5.449		
Total	67031.245	30			
Corrected Total	13876.625	29			

*Berpengaruh

Tabel 1c. Uji Lanjut Duncan Total Padatan Berdasarkan Pengaruh Suhu

Suhu	N	Subset	
		1	2
Suhu 55	10	41,29	
Suhu 65	10		44,17
Suhu 60	10		48,55
Sig.		1,000	0,34

Tabel 1d. Uji Lanjut Duncan Total Padatan Berdasarkan Pengaruh Lama Evaporasi

Durasi	N	Subset				
		1	2	3	4	5
Control	6	14,37				
SA Jam	6		24,36			
	6			42,42		
	6				58,29	
	4					68,41
	2					68,72



Sig.		1,00	1,00	1,00	1,00	0,66
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SA = Substrat Awal

Tabel 1e. Uji Lanjut Duncan Total Padatan Berdasarkan Pengaruh Interaksi antara Lama dan Suhu Evaporasi

Interaksi	N	Subset										
		1	2	3	4	5	6	7	8	9	10	11
55°C Con	2	11,17										
65°C Con	2	14,6	14,6									
60°C Con	2	17,34	17,34	17,34								
55°C SA	2		20,11	20,11								
65°C SA	2			24,25	24,25							
60°C SA	2				28,72							
55°C 2 Jam	2				31,07							
60°C 2 Jam	2					46,47						
65°C 2 Jam	2					49,17	49,17					
65°C 4 Jam	2						55,68	55,68				
55°C 4 Jam	2							58,18	58,18			
60°C 4 Jam	2							60,49	60,49	60,49		
55°C 5 Jam	2							61,8	61,8	61,8		
55°C 6 Jam	2								65,43	65,43	65,43	
60°C 5 Jam	2									66,26	66,26	
60°C 6 Jam	2										72,02	72,02
65°C 5 Jam	2											77,18
Sig.		0,08	0,12	0,06	0,06	0,41	0,06	0,1	0,07	0,12	0,07	0,21



LAMPIRAN 2.

Tabel 2. Hasil Analisa Kadar Air

Suhu (°C)	Lama Evaporasi (Jam)	Ulangan		Rata-rata
		I	II	
55	0	79,86	79,93	79,9
	2	68,91	68,95	68,93
	4	41,54	41,03	41,29
	6	35,02	34,13	34,58
60	0	69,49	73,07	71,28
	2	49,23	57,83	53,53
	4	41,8	37,23	39,52
	6	28,83	27,13	27,98
65	0	78,55	72,96	75,76
	2	49,63	52,02	50,83
	4	45,2	43,45	44,33
	5	23,54	22,1	22,82

Tabel 2a. Rata-rata Hasil Analisa Kadar Air

Suhu (°C)	Lama Evaporasi (Jam)						Rata-rata
	Control	SA	2	4	5	6	
55	88,83	79,9	68,93	41,29	37,93	34,58	58,57
60	82,66	71,28	53,53	39,52	33,75	27,98	51,45
65	85,4	75,76	50,83	44,33	22,82		55,83
63		75,64	57,76	41,71	22,82	31,28	



Tabel 2b. Anova Hasil Analisa Kadar Air

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	13933,107 ^a	14	995.222	194.245	0.00
Intercept	85228.370	1	85228.370	16634.654	0.00
Suhu	311.995	2	155.997	30.447	0.00*
Lama Evaporasi	13325.794	5	2665.159	520.179	0.00*
Suhu * Lama	249.168	7	35.595	6.947	0.00*
Error	76.853	15	5.124		
Total	114375.085	30			
Corrected Total	14009.960	29			

*Berpengaruh

Tabel 2c. Uji Lanjut Duncan Kadar Air Berdasarkan Pengaruh Suhu

Suhu	N	Subset	
		1	2
Suhu 60	10	51,45	
Suhu 65	10	55,83	
Suhu 55	10		58,57
Sig.		0,42	1,00

Tabel 2d. Duncan Kadar Air Berdasarkan Pengaruh Lama Evaporasi

Durasi	N	Subset				
		1	3	4	5	6
6 Jam	2	31,28				
5 Jam	4	31,5				
4 Jam	6		41,71			
	6			57,76		
	6				75,64	
	6					85,63
		0,58	1,00	1,00	1,00	1,00



SA = Substrat Awal

Tabel 2e. Uji Lanjut Duncan Kadar Air Berdasarkan Pengaruh Interaksi antara Lama dan Suhu Evaporasi

Interaksi	N	Subset										
		1	2	3	4	5	6	7	8	9	10	11
65°C 5 Jam	2	22,82										
60°C 6 Jam	2	27,98	27,98									
60°C 5 Jam	2		33,75	33,75								
55°C 6 Jam	2		34,58	34,58	34,58							
55°C 5 Jam	2			37,93	37,93	37,93						
60°C 4 Jam	2			39,52	39,52	39,52						
55°C 4 Jam	2				41,29	41,29						
65°C 4 Jam	2					44,33	44,33					
65°C 2 Jam	2						50,83	50,83				
60°C 2 Jam	2							53,53				
55°C 2 Jam	2								68,93			
60°C SA	2								71,28			
65°C SA	2								75,76	75,76		
55°C SA	2									79,9	79,9	
60°C Con	2									82,66	82,66	82,66
65°C Con	2										85,4	85,4
55°C Con	2											88,83
Sig.		0,12	0,06	0,11	0,06	0,08	0,05	0,4	0,05	0,05	0,11	0,08



LAMPIRAN 3.

Tabel 3. Hasil Analisa Kadar Gula Pereduksi

Suhu (°C)	Lama Evaporasi (Jam)	Ulangan		Rata-rata
		I	II	
55	0	8,64	6,89	7,77
	2	12,63	13,17	12,9
	4	19,22	18,97	19,1
	6	25,8	24,64	25,22
60	0	10,5	10,16	10,33
	2	17,36	17,06	17,21
	4	21,9	22,35	22,13
	6	26,05	23,52	24,79
65	0	9,59	8,93	9,26
	2	19,55	18,97	19,26
	4	25,07	25,23	25,15
	5	28,97	29,9	29,44

Tabel 3a. Rata-rata Hasil Analisa Kadar Gula Pereduksi

Suhu (°C)	Lama Evaporasi (Jam)						Rata-rata
	Control	SA	2	4	5	6	
55	4,97	7,81	12,9	19,1	20,46	25,22	15,08
60	6,94	10,33	17,21	22,13	23,46	24,79	17,47
65	6,17	9,26	19,26	25,15	29,44		17,86
	3	9,13	16,46	22,12	24,45	25	



Tabel 3b. Anova Hasil Analisa Kadar Gula Pereduksi

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1881.885 ^a	14	134.420	304.723	0.00
Intercept	8354.064	1	8354.064	18938.159	0.00
Suhu	54.220	2	27.110	61.456	0.00*
Durasi	1770.985	5	354.197	802.943	0.00*
Suhu * Durasi	35.367	7	5.052	11.453	0.00*
Error	6.617	15	0.441		
Total	9607.913	30			
Corrected Total	1888.502	29			

*Berpengaruh

Tabel 3c. Uji Lanjut Duncan Kadar Gula Pereduksi Berdasarkan Pengaruh Suhu

Suhu	N	Subset	
		1	2
Suhu 55	10	15,08	
Suhu 60	10		18,4
Suhu 65	10		18,02
Sig.		1,00	0,96

Tabel 3d. Uji Lanjut Duncan Kadar Gula Pereduksi Berdasarkan Pengaruh Lama Evaporasi

Durasi	N	Subset				
		1	2	3	4	5
Control	6	6,03				
SA	6		9,13			
2 Jam	6			16,46		
4 Jam	6				22,12	
5 Jam	2					24,45
6 Jam	4					25
Sig.		1,00	1,00	1,00	1,00	0,95

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Tabel. 3e. Uji Lanjut Duncan Kadar Gula Pereduksi Berdasarkan Pengaruh Interaksi antara Lama dan Suhu Evaporasi

Suhu	N	Subset							
		1	2	3	4	5	6	7	8
55°C Con	2	4,97							
65°C Con	2	6,17	6,17						
60°C Con	2	6,94	6,94						
55°C SA	2	7,81	7,81						
65°C SA	2		9,26	9,26					
60°C SA	2		10,33	10,33					
55°C 2 Jam	2			12,9					
60°C 2 Jam	2				17,21				
55°C 4 Jam	2				19,1	19,1			
65°C 2 Jam	2				19,26	19,26			
55°C 5 Jam	2				20,46	20,46	20,46		
60°C 4 Jam	2					22,13	22,13	22,13	
60°C 5 Jam	2						23,46	23,46	
60°C 6 Jam	2							24,79	
65°C 4 Jam	2							25,15	
55°C 6 Jam	2							25,22	
65°C 5 Jam	2								29,44
Sig.		0,17	0,05	0,07	0,12	0,14	0,13	0,14	1,00



LAMPIRAN 4.

Tabel 4. Hasil Analisa Dekstrosa Equivalent

Suhu (oC)	Lama Evaporasi (Jam)	Ulangan		Rata-rata
		I	II	
55	0	42,9	34,78	38,84
	2	40,62	42,42	41,52
	4	32,88	32,12	32,53
	6	39,71	37,41	38,56
60	0	34,42	37,73	36,08
	2	34,19	40,46	37,33
	4	37,63	35,61	36,62
	6	36,6	32,28	34,44
65	0	44,71	33,03	38,87
	2	38,81	39,54	39,18
	4	45,75	44,62	45,19
	5	37,89	38,38	38,14

Tabel. 4a. Rata-rata Dekstrosa Equivalent

Suhu (°C)	Lama Evaporasi (Jam)						Rata-rata
	Control	SA	2	4	5	6	
55	44,49	38,84	41,52	32,53	32,64	38,56	38,1
60	44,02	36,08	37,33	36,62	35,53	34,44	36,67
62	44,28	38,87	39,18	45,19	38,14		40,73
66	44,26	37,93	39,34	38,11	35,44	36,5	



Tabel 4b. Anova Hasil Analisa Dekstrosa Equivalent

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	334.489 ^a	14	23.892	2.502	0.04
Intercept	42654.401	1	42654.401	4467.169	0.00
Suhu	72.676	2	36.338	3.806	0.05**
Durasi	100.894	5	20.179	2.113	0.12**
Suhu * Durasi	159.201	7	22.743	2.382	0.08**
Error	143.226	15	9.548		
Total	45961.193	30			
Corrected Total	477.715	29			

**Tidak Berpengaruh



LAMPIRAN 5

Suhu 55°C * Control

Dik : ml Blanko = 28,95ml : ml Sampel = 16,2 ml
: Bobot Sampel = 2,5 gr = 2500 mg : Faktor Pengenceran = $\frac{100 \text{ ml}}{25 \text{ ml}} = 4$
: % KA = 88,83% : % Substrat = 100% - 88,83% = 11,17%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 16,67 \text{ ml} = 12,28 \text{ ml}$
 $Tabel \text{ di antara} = 12 \sim 13 (30,3 \sim 33)$
 $\Delta = 33 - 30,3 = 2,7$
 $= 30,3 + (0,28 \times 2,7)$
 $= 30,3 + 0,76$
 $= 31,06$
: % Gula Pereduksi = $\left[\frac{31,06 \times 4}{2500} \right] \times 100\%$
 $= \left[\frac{124,24}{2500} \right] \times 100\% = 4,97\%$
: % Dekstrosa Equivalent = $\left(\frac{4,97\%}{11,17\%} \right) \times 100\% = 44,49\%$

Suhu 60°C * Control

Dik : ml Blanko = 28,95ml : ml Sampel = 13,56 ml
: Bobot Sampel = 2,58 gr = 2580 mg : Faktor Pengenceran = $\frac{100 \text{ ml}}{25 \text{ ml}} = 4$
: % KA = 82,66% : % Substrat = 100% - 82,66% = 17,34%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 11,76 \text{ ml} = 17,19 \text{ ml}$
 $Tabel \text{ di antara} = 17 \sim 18 (44,2 \sim 47,1)$
 $\Delta = 47,1 - 44,2 = 2,9$
 $= 44,2 + (0,19 \times 2,9)$
 $= 44,2 + 0,55$
 $= 44,75$
: % Gula Pereduksi = $\left[\frac{44,75 \times 4}{2580} \right] \times 100\%$
 $= \left[\frac{179}{2580} \right] \times 100\% = 6,94\%$
: % Dekstrosa Equivalent = $\left(\frac{6,94\%}{17,34\%} \right) \times 100\% = 40,02\%$



Suhu 65°C * Control

Dik : ml Blanko = 28,95ml : ml Sampel = 12,17 ml
: Bobot Sampel = 2,5 gr = 2500 mg : Faktor Pengenceran = $\frac{100 \text{ ml}}{25 \text{ ml}} = 4$
: % KA = 85,4% : % Substrat = 100% - 85,4% = 14,6%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 13,93 \text{ ml} = 15,02 \text{ ml}$
 $Tabel \text{ di antara} = 15 \sim 16 (38,5 \sim 41,3)$
 $\Delta = 41,3 - 38,5 = 2,8$
 $= 38,5 + (0,02 \times 2,8)$
 $= 38,5 + 0,06$
 $= 38,56$

: % Gula Pereduksi = $\left[\frac{38,56 \times 4}{2500} \right] \times 100\%$
 $= \left[\frac{154,24}{2500} \right] \times 100\% = 6,17\%$

: % Dekstrosa Equivalent = $\left(\frac{6,17\%}{14,6\%} \right) \times 100\% = 42,28\%$

Suhu 55°C * SA (Substrat Awal) Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 18,02 ml
: Bobot Sampel = 2,54 gr = 2540 mg : Faktor Pengenceran = $\frac{200 \text{ ml}}{25 \text{ ml}} = 8$
: % KA = 79,86% : % Substrat = 100% - 79,86% = 20,14%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 18,02 \text{ ml} = 10,93 \text{ ml}$
 $Tabel \text{ di antara} = 10 \sim 11 (25 \sim 27,6)$
 $\Delta = 27,6 - 25 = 2,6$
 $= 25 + (0,93 \times 2,6)$
 $= 25 + 2,42$
 $= 27,42$

: % Gula Pereduksi = $\left[\frac{27,42 \times 8}{2540} \right] \times 100\%$
 $= \left[\frac{219,36}{2540} \right] \times 100\% = 8,64\%$

: % Dekstrosa Equivalent = $\left(\frac{8,64\%}{20,14\%} \right) \times 100\% = 42,9\%$



Suhu 55°C * SA (Substrat Awal) Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 24,42 ml
: Bobot Sampel = 2,53 gr = 2530 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 79,93% : % Substrat = 100% - 79,93% = 20,07%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 24,42 \text{ ml} = 4,53 \text{ ml}$
 $Tabel \text{ di antara} = 4 \sim 5 (9,7 \sim 12,2)$
 $\Delta = 12,2 - 9,7 = 2,5$
 $= 9,7 + (0,53 \times 2,5)$
 $= 9,7 + 1,33$
 $= 11,03$

: % Gula Pereduksi = $\left[\frac{11,03 \times 16}{2530} \right] \times 100\%$
 $= \left[\frac{176,48}{2530} \right] \times 100\% = 6,98\%$

: % Dekstrosa Equivalent = $\left(\frac{6,98\%}{20,07\%} \right) \times 100\% = 34,78\%$

Suhu 55°C * 2 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 13,38 ml
: Bobot Sampel = 2,54 gr = 2540 mg : Faktor Pengenceran = $\frac{200 \text{ ml}}{25 \text{ ml}} = 8$
: % KA = 68,91% : % Substrat = 100% - 68,91% = 31,09%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 13,38 \text{ ml} = 15,57 \text{ ml}$
 $Tabel \text{ di antara} = 15 \sim 16 (38,5 \sim 41,3)$
 $\Delta = 41,3 - 38,5 = 2,8$
 $= 38,5 + (0,57 \times 2,8)$
 $= 38,5 + 1,6$
 $= 40,1$

: % Gula Pereduksi = $\left[\frac{40,1 \times 8}{2540} \right] \times 100\%$
 $= \left[\frac{320,8}{2540} \right] \times 100\% = 12,63\%$

: % Dekstrosa Equivalent = $\left(\frac{12,63\%}{31,09\%} \right) \times 100\% = 40,62\%$



Suhu 55°C * 2 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 20,62 ml
: Bobot Sampel = 2,51 gr = 2510 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 68,95% : % Substrat = 100% - 68,95% = 31,05%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 20,62 \text{ ml} = 8,33 \text{ ml}$
 $Tabel \text{ di antara} = 8 \sim 9 (19,8 \sim 22,4)$
 $\Delta = 22,4 - 19,8 = 2,6$
 $= 19,8 + (0,33 \times 2,6)$
 $= 19,8 + 0,86$
 $= 20,66$

: % Gula Pereduksi = $\left[\frac{20,66 \times 16}{2510} \right] \times 100\%$
 $= \left[\frac{330,56}{2510} \right] \times 100\% = 13,17\%$

: % Dekstrosa Equivalent = $\left(\frac{13,17\%}{31,05\%} \right) \times 100\% = 42,42\%$

Suhu 55°C * 4 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 6,33 ml
: Bobot Sampel = 2,54 gr = 2540 mg : Faktor Pengenceran = $\frac{200 \text{ ml}}{25 \text{ ml}} = 8$
: % KA = 41,54% : % Substrat = 100% - 41,54% = 58,46%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 6,33 \text{ ml} = 22,62 \text{ ml}$
 $Tabel \text{ di antara} = 22 \sim 23 (59,1 \sim 62,2)$
 $\Delta = 62,2 - 59,1 = 3,1$
 $= 59,1 + (0,62 \times 3,1)$
 $= 59,1 + 1,92$
 $= 61,02$

: % Gula Pereduksi = $\left[\frac{61,02 \times 8}{2540} \right] \times 100\%$
 $= \left[\frac{488,16}{2540} \right] \times 100\% = 19,22\%$

: % Dekstrosa Equivalent = $\left(\frac{19,22\%}{58,46\%} \right) \times 100\% = 32,88\%$



Suhu 55°C * 4 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 17,11 ml
: Bobot Sampel = 2,52 gr = 2520 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 41,03% : % Substrat = 100% - 41,03% = 58,97%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 17,11 \text{ ml} = 11,84 \text{ ml}$
 $Tabel \text{ di antara} = 11 \sim 12 (27,6 \sim 30,3)$
 $\Delta = 30,3 - 27,6 = 2,7$
 $= 27,6 + (0,84 \times 2,7)$
 $= 27,6 + 2,27$
 $= 29,87$

: % Gula Pereduksi = $\left[\frac{29,87 \times 16}{2520} \right] \times 100\%$
= $\left[\frac{477,92}{2520} \right] \times 100\% = 18,97\%$

: % Dekstrosa Equivalent = $\left(\frac{18,97\%}{58,97\%} \right) \times 100\% = 32,17\%$

Suhu 55°C * 6 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 8,7 ml
: Bobot Sampel = 2,5 gr = 2500 mg : Faktor Pengenceran = $\frac{300 \text{ ml}}{25 \text{ ml}} = 12$
: % KA = 35,02% : % Substrat = 100% - 35,02% = 64,98%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 8,7 \text{ ml} = 20,25 \text{ ml}$
 $Tabel \text{ di antara} = 20 \sim 21 (53 \sim 56)$
 $\Delta = 56 - 53 = 3$
 $= 53 + (0,25 \times 3)$
 $= 53 + 0,75$
 $= 53,75$

: % Gula Pereduksi = $\left[\frac{53,75 \times 12}{2500} \right] \times 100\%$
= $\left[\frac{645}{2500} \right] \times 100\% = 25,8\%$

: % Dekstrosa Equivalent = $\left(\frac{25,8\%}{64,98\%} \right) \times 100\% = 39,71\%$



Suhu 55°C * 6 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 13,95 ml
: Bobot Sampel = 2,5 gr = 2500 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 34,13% : % Substrat = 100% - 34,13% = 65,82%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 13,95 \text{ ml} = 15 \text{ ml}$
 $= \text{Pada tabel 15} = 38,5$
: % Gula Pereduksi = $\left[\frac{38,5 \times 16}{2500} \right] \times 100\%$
 $= \left[\frac{616}{2500} \right] \times 100\% = 24,64\%$
: % Dekstrosa Equivalent = $\left(\frac{24,64\%}{65,87\%} \right) \times 100\% = 37,41\%$

Suhu 60°C * SA (Substrat Awal) Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 21,86 ml
: Bobot Sampel = 2,55 gr = 2550 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 69,49% : % Substrat = 100% - 69,49% = 30,51%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 22,14 \text{ ml} = 6,81 \text{ ml}$
 $\text{Tabel di antara} = 6 \sim 7 (14,7 \sim 17,2)$
 $\Delta = 17,2 - 14,7 = 2,5$
 $= 14,7 + (0,81 \times 2,6)$
 $= 14,7 + 2,03$
 $= 16,73$
: % Gula Pereduksi = $\left[\frac{16,73 \times 16}{2550} \right] \times 100\%$
 $= \left[\frac{267,68}{2550} \right] \times 100\% = 10,5\%$
: % Dekstrosa Equivalent = $\left(\frac{10,5\%}{30,51\%} \right) \times 100\% = 34,42 \%$



Suhu 60°C * SA (Substrat Awal) Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 22,48 ml
: Bobot Sampel = 2,6 gr = 2600 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 73,07% : % Substrat = 100% - 73,07% = 26,93%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 22,48 \text{ ml} = 6,47 \text{ ml}$
 $Tabel \text{ di antara} = 6 \sim 7 (14,7 \sim 17,2)$
 $\Delta = 17,2 - 14,7 = 2,5$
 $= 14,7 + (0,47 \times 2,)$
 $= 14,7 + 1,18$
 $= 15,88$

: % Gula Pereduksi = $\left[\frac{15,88 \times 16}{2500} \right] \times 100\%$
 $= \left[\frac{254,08}{2500} \right] \times 100\% = 10,16\%$

: % Dekstrosa Equivalent = $\left(\frac{10,16\%}{26,93\%} \right) \times 100\% = 37,73 \%$

Suhu 60°C * 2 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 8,17 ml
: Bobot Sampel = 2,55 gr = 2550 mg : Faktor Pengenceran = $\frac{200 \text{ ml}}{25 \text{ ml}} = 8$
: % KA = 49,23% : % Substrat = 100% - 49,23% = 50,77%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 8,17 \text{ ml} = 20,78 \text{ ml}$
 $Tabel \text{ di antara} = 20 \sim 21 (53 \sim 56)$
 $\Delta = 56 - 53 = 3$
 $= 53 + (0,78 \times 3)$
 $= 53 + 2,34$
 $= 55,34$

: % Gula Pereduksi = $\left[\frac{55,34 \times 8}{2550} \right] \times 100\%$
 $= \left[\frac{442,72}{2550} \right] \times 100\% = 17,36\%$

: % Dekstrosa Equivalent = $\left(\frac{17,36\%}{50,77\%} \right) \times 100\% = 34,19\%$



Suhu 60°C * 2 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 8,21 ml
: Bobot Sampel = 2,59 gr = 2590 mg : Faktor Pengenceran = $\frac{200 \text{ ml}}{25 \text{ ml}} = 8$
: % KA = 57,83% : % Substrat = 100% - 57,83% = 42,17%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 8,21 \text{ ml} = 20,74 \text{ ml}$
 $Tabel \text{ di antara} = 20 \sim 21 (53 \sim 56)$
 $\Delta = 56 - 53 = 3$
 $= 53 + (0,74 \times 3)$
 $= 53 + 2,22$
 $= 55,22$
: % Gula Pereduksi = $\left[\frac{55,22 \times 8}{2590} \right] \times 100\%$
 $= \left[\frac{441,76}{2590} \right] \times 100\% = 17,06\%$
: % Dekstrosa Equivalent = $\left(\frac{17,06\%}{42,17\%} \right) \times 100\% = 40,46\%$

Suhu 60°C * 4 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 15,5 ml
: Bobot Sampel = 2,5 gr = 2500 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 41,8% : % Substrat = 100% - 41,8% = 58,2%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 15,5 \text{ ml} = 13,45 \text{ ml}$
 $Tabel \text{ di antara} = 13 \sim 14 (33 \sim 35,7)$
 $\Delta = 35,7 - 33 = 2,7$
 $= 33 + (0,45 \times 2,7)$
 $= 33 + 1,22$
 $= 34,22$
: % Gula Pereduksi = $\left[\frac{34,22 \times 16}{2500} \right] \times 100\%$
 $= \left[\frac{547,52}{2500} \right] \times 100\% = 21,9\%$
: % Dekstrosa Equivalent = $\left(\frac{21,9\%}{58,2\%} \right) \times 100\% = 37,63\%$



Suhu 60°C * 4 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 14,83 ml
: Bobot Sampel = 2,58 gr = 2580 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 37,23% : % Substrat = 100% - 37,23% = 62,77%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 14,83 \text{ ml} = 14,12 \text{ ml}$
 $Tabel \text{ di antara} = 14 \sim 15 (35,7 \sim 38,5)$
 $\Delta = 38,5 - 35,7 = 2,8$
 $= 35,7 + (0,12 \times 2,8)$
 $= 35,7 + 0,34$
 $= 36,04$

: % Gula Pereduksi = $\left[\frac{36,04 \times 16}{2580} \right] \times 100\%$
 $= \left[\frac{576,64}{2580} \right] \times 100\% = 22,35\%$

: % Dekstrosa Equivalent = $\left(\frac{22,35\%}{62,77\%} \right) \times 100\% = 35,61\%$

Suhu 60°C * 6 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 12,93 ml
: Bobot Sampel = 2,54 gr = 2540 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 28,83% : % Substrat = 100% - 28,83% = 71,17%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 12,93 \text{ ml} = 16,02 \text{ ml}$
 $Tabel \text{ di antara} = 16 \sim 17 (41,3 \sim 44,2)$
 $\Delta = 44,2 - 41,3 = 2,9$
 $= 41,3 + (0,02 \times 2,9)$
 $= 41,3 + 0,06$
 $= 41,36$

: % Gula Pereduksi = $\left[\frac{41,36 \times 16}{2540} \right] \times 100\%$
 $= \left[\frac{661,76}{2540} \right] \times 100\% = 26,05\%$

: % Dekstrosa Equivalent = $\left(\frac{26,05\%}{71,17\%} \right) \times 100\% = 36,6\%$



Suhu 60°C * 6 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 13,05 ml
: Bobot Sampel = 2,79 gr = 2790 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 27,13% : % Substrat = 100% - 27,13% = 72,87%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 13,05 \text{ ml} = 15,9 \text{ ml}$
 $Tabel \text{ di antara} = 15 \sim 16 (38,5 \sim 41,3)$
 $\Delta = 41,3 - 38,5 = 2,8$
 $= 38,5 + (0,9 \times 2,8)$
 $= 38,5 + 2,52$
 $= 41,02$
: % Gula Pereduksi = $\left[\frac{41,02 \times 16}{2790} \right] \times 100\%$
= $\left[\frac{656,32}{2790} \right] \times 100\% = 23,52\%$
: % Dekstrosa Equivalent = $\left(\frac{23,52\%}{72,87\%} \right) \times 100\% = 32,28\%$

Suhu 65°C * SA (Substrat Awal) Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 6,68 ml
: Bobot Sampel = 2,5 gr = 2500 mg : Faktor Pengenceran = $\frac{100 \text{ ml}}{25 \text{ ml}} = 4$
: % KA = 78,55% : % Substrat = 100% - 78,55% = 21,45%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 6,68 \text{ ml} = 22,27 \text{ ml}$
 $Tabel \text{ di antara} = 22 \sim 23 (59,1 \sim 62,2)$
 $\Delta = 62,2 - 59,1 = 3,1$
 $= 59,1 + (0,27 \times 3,1)$
 $= 59,1 + 0,84$
 $= 59,94$
: % Gula Pereduksi = $\left[\frac{59,94 \times 4}{2500} \right] \times 100\%$
= $\left[\frac{239,76}{2500} \right] \times 100\% = 9,59\%$
: % Dekstrosa Equivalent = $\left(\frac{9,59\%}{21,45\%} \right) \times 100\% = 44,71\%$



Suhu 65°C * SA (Substrat Awal) Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 23,12 ml
: Bobot Sampel = 2,56 gr = 2560 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 72,96% : % Substrat = 100% - 72,96% = 27,04%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 23,12 \text{ ml} = 5,83 \text{ ml}$
 $Tabel \text{ di antara} = 5 \sim 6 (12,2 \sim 14,7)$
 $\Delta = 14,7 - 12,2 = 2,5$
 $= 12,2 + (0,83 \times 2,5)$
 $= 12,2 + 2,08$
 $= 14,28$

: % Gula Pereduksi = $\left[\frac{14,28 \times 16}{2560} \right] \times 100\%$
 $= \left[\frac{228,48}{2560} \right] \times 100\% = 8,93\%$

: % Dekstrosa Equivalent = $\left(\frac{8,93\%}{27,04\%} \right) \times 100\% = 33,03\%$

Suhu 65°C * 2 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 6,15 ml
: Bobot Sampel = 2,52 gr = 2520 mg : Faktor Pengenceran = $\frac{200 \text{ ml}}{25 \text{ ml}} = 8$
: % KA = 49,63% : % Substrat = 100% - 49,63% = 50,37%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 6,15 \text{ ml} = 22,8 \text{ ml}$
 $Tabel \text{ di antara} = 22 \sim 23 (59,1 \sim 62,2)$
 $\Delta = 62,2 - 59,1 = 3,1$
 $= 59,1 + (0,8 \times 3,1)$
 $= 59,1 + 2,48$
 $= 61,58$

: % Gula Pereduksi = $\left[\frac{61,58 \times 8}{2520} \right] \times 100\%$
 $= \left[\frac{492,64}{2520} \right] \times 100\% = 19,55\%$

: % Dekstrosa Equivalent = $\left(\frac{19,55\%}{50,37\%} \right) \times 100\% = 38,81\%$



Suhu 65°C * 2 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 17,06 ml
: Bobot Sampel = 2,53 gr = 2530 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 52,02% : % Substrat = 100% - 52,02% = 47,98%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 17,06 \text{ ml} = 11,89 \text{ ml}$
 $Tabel \text{ di antara} = 11 \sim 12 (27,6 \sim 30,3)$
 $\Delta = 30,3 - 27,6 = 2,7$
 $= 27,6 + (0,89 \times 2,7)$
 $= 27,6 + 2,4$
 $= 30$

: % Gula Pereduksi = $\left[\frac{30 \times 16}{2530} \right] \times 100\%$
= $\left[\frac{480}{2530} \right] \times 100\% = 18,97\%$

: % Dekstrosa Equivalent = $\left(\frac{18,97\%}{47,98\%} \right) \times 100\% = 39,54\%$

Suhu 65°C * 4 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 13,6 ml
: Bobot Sampel = 2,52 gr = 2520 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 45,2% : % Substrat = 100% - 45,2% = 54,8%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 13,6 \text{ ml} = 15,35 \text{ ml}$
 $Tabel \text{ di antara} = 15 \sim 16 (38,5 \sim 41,3)$
 $\Delta = 41,3 - 38,5 = 2,8$
 $= 38,5 + (0,35 \times 2,8)$
 $= 38,5 + 0,98$
 $= 39,48$

: % Gula Pereduksi = $\left[\frac{39,48 \times 16}{2520} \right] \times 100\%$
= $\left[\frac{631,68}{2540} \right] \times 100\% = 25,07\%$

: % Dekstrosa Equivalent = $\left(\frac{25,07\%}{54,8\%} \right) \times 100\% = 45,75\%$



Suhu 65°C * 4 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 13,51 ml
: Bobot Sampel = 2,52 gr = 2520 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 43,45% : % Substrat = 100% - 43,45% = 56,55%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 13,51 \text{ ml} = 15,44 \text{ ml}$
 $Tabel \text{ di antara} = 15 \sim 16 (38,5 \sim 41,3)$
 $\Delta = 41,3 - 38,5 = 2,8$
 $= 38,5 + (0,44 \times 2,8)$
 $= 38,5 + 1,23$
 $= 39,73$

: % Gula Pereduksi = $\left[\frac{39,73 \times 16}{2520} \right] \times 100\%$
 $= \left[\frac{635,68}{2520} \right] \times 100\% = 25,23\%$

: % Dekstrosa Equivalent = $\left(\frac{25,23\%}{56,55\%} \right) \times 100\% = 44,62\%$

Suhu 65°C * 5 Jam Ulangan I

Dik : ml Blanko = 28,95ml : ml Sampel = 10,71 ml
: Bobot Sampel = 2,64 gr = 2640 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 23,54% : % Substrat = 100% - 23,54% = 76,46%

Dit : % Gula pereduksi : % Dekstrosa Equivalent

Penye : $AT = 28,95 \text{ ml} - 10,71 \text{ ml} = 18,24 \text{ ml}$
 $Tabel \text{ di antara} = 18 \sim 19 (47,1 \sim 50)$
 $\Delta = 50 - 47,1 = 2,9$
 $= 47,1 + (0,24 \times 2,9)$
 $= 47,6 + 0,7$
 $= 47,8$

: % Gula Pereduksi = $\left[\frac{47,8 \times 16}{2640} \right] \times 100\%$
 $= \left[\frac{764,8}{2640} \right] \times 100\% = 28,97\%$

: % Dekstrosa Equivalent = $\left(\frac{28,97\%}{76,46\%} \right) \times 100\% = 37,89\%$



Suhu 65°C * 5 Jam Ulangan II

Dik : ml Blanko = 28,95ml : ml Sampel = 10,18 ml
: Bobot Sampel = 2,64 gr = 2640 mg : Faktor Pengenceran = $\frac{400 \text{ ml}}{25 \text{ ml}} = 16$
: % KA = 22,1% : % Substrat = 100% - 22,1% = 77,9%
Dit : % Gula pereduksi : % Dekstrosa Equivalent
Penye : $AT = 28,95 \text{ ml} - 10,18 \text{ ml} = 18,77 \text{ ml}$
 $Tabel \text{ di antara} = 18 \sim 19 (47,1 \sim 50)$
 $\Delta = 50 - 47,1 = 2,9$
 $= 47,1 + (0,77 \times 2,9)$
 $= 47,1 + 2,23$
 $= 49,33$
: % Gula Pereduksi = $\left[\frac{49,33 \times 16}{2640} \right] \times 100\%$
= $\left[\frac{789,28}{2640} \right] \times 100\% = 29,9\%$
: % Dekstrosa Equivalent = $\left(\frac{29,9\%}{77,9\%} \right) \times 100\% = 38,38\%$



LAMPIRAN 6

Proses Evaporasi Maltodekstrin



Proses Analisa Kadar Gula Pereduksi dengan Metode Luff





Analisa Kadar Air dan Total Padatan menggunakan Moisture Analyzer



Ucapan Terima Kasih

Sembah sujud syukur tiada terkira untuk nikmat kesehatan, kesempatan dan anugerah yang yang diberikan oleh Allah SWT. Segala atas pujiNya yang telah mengirimkan orang-orang hebat dalam hidup ini, yaitu mereka yang telah meluangkan waktu dan tenaganya untuk membantu saya dalam melakukan penelitian ini. Semoga Allah SWT membalas kebaikan-kebaikan kalian dengan sebaik-baiknya balasan.

La Ode Ashar Munazar

