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## LAMPIRAN

Lampiran 1. pH dangke dari Kecamatan Enrekang, Cendana dan Anggeraja

pH dangke dari 3 Kecamatan yaitu Kec. Enrekang, Cendana dan Anggeraja

Kecamatan	Ulangan			
Enrekang	1	2	3	Rata-rata
1	6.5	6.3	6.2	6.33
2	6.1	5.7	5.8	5.86
3	6.2	6.2	6.3	6.23
Rata-rata				6.14
Cendana				
1	6.3	6.3	6.3	6.3
2	6.4	6	6.3	6.23
3	6.1	6	6	6.03
Rata-rata				6.18
Anggeraja				
1	6.3	6	6.2	6.16
2	6.3	6.3	6.1	6.23
3	6.3	6.3	6.3	6.3
Rata-rata				6.23

Lampiran 2. Total Asam Titrasi dangke dari 3 Kecamatan yaitu Kec. Enrekang, Cendana dan Anggeraja

Enrekang	ml NaOH	ml NaOH	TAT	TAT	Rata TAT
1	1.5	1.4	0.67	0.63	0.65308
2	1	1.6	0.45	0.72	0.58552
3	1.7	2.3	0.76	1.03	0.9008
Cendana					
1	2	2.1	0.90	0.94	0.92
2	1.1	1.4	0.49	0.63	0.56
3	1.1	1.3	0.49	0.58	0.54
Anggeraja					
1	1.8	1.6	0.81	0.72	0.76
2	1.2	1.3	0.54	0.58	0.56
3	1.7	1.6	0.76	0.72	0.74

Lampiran 3. Tingkat kekerasan dangke dari 3 Kecamatan di Kabupaten Enrekang

Enrekang	Hardness 1	Hardness 2	Rata-rata
1	0.51	0.86	0.68
2	0.55	0.53	0.54
3	0.67	0.75	0.71
Cendana			
1	0.58	0.46	0.52
2	0.67	0.66	0.67
3	0.80	0.96	0.88
Anggeraja			
1	0.61	0.65	0.63
2	0.65	0.49	0.57
3	0.49	0.60	0.55

Lampiran 4. Komposisi kimia dangke dari 3 Kecamatan di Kabupaten Enrekang

Dangke	Air	BK	Abu	PK	LK	BETN
Enrekang	60.61	39.38	1.10	16.19	21.53	3.74
	53.03	46.96	0.97	14.16	18.84	3.27
	53.61	46.38	0.98	14.32	19.05	3.31
Cendana	52.97	47.02	1.80	14.00	18.50	3.73
	58.79	41.20	1.99	15.54	20.53	4.14
	55.88	44.11	1.90	14.77	19.51	3.93
Anggeraja	64.76	35.23	1.87	17.49	23.42	3.44
	53.09	46.90	1.53	14.34	19.20	2.82
	53.68	46.31	1.55	14.49	19.41	2.85

Lampiran 5. ANOVA pH, Total asam tertitiasi, Tingkat kekerasan dangke dari 3 Kecamatan di Kabupaten Enrekang

**ANOVA**

				Sum of Squares	df	Mean Square	F	Sig.
pH		(Combined)		.012	2	.006	.211	.815
	Between Groups	Linear Term	Contrast Deviation	.012	1	.012	.423	.540
				.000	1	.000	.000	1.000
		Within Groups		.168	6	.028		
		Total		.180	8			
Total Asam Titrasi		(Combined)		.002	2	.001	.031	.970
	Between Groups	Linear Term	Contrast Deviation	.001	1	.001	.019	.894
				.001	1	.001	.042	.844
		Within Groups		.174	6	.029		
		Total		.175	8			
Tingkat kekerasan		(Combined)		.017	2	.008	.590	.584
	Between Groups	Linear Term	Contrast Deviation	.005	1	.005	.326	.589
				.012	1	.012	.853	.391
		Within Groups		.085	6	.014		
		Total		.102	8			



Lampiran 6 Hasil analisis DMRT pH, Total asam tertitiasi, Tingkat kekerasan

**pH**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05
		1
Enrekang	3	6.1444
Cendana	3	6.1889
Anggeraja	3	6.2333
Sig.		.552

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Hardness**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05
		1
Anggeraja	3	.5878
Enrekang	3	.6433
Cendana	3	.6933
Sig.		.334

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Total Asam Titrasi**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05
		1
Cendana	3	.6756
Anggeraja	3	.6906
Enrekang	3	.7100
Sig.		.818

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 7. Analisis ANOVA Komposisi Kimia Dangke dari 3 Kecamatan di Kabupaten Enrekang

				ANOVA				
				Sum of Squares	df	Mean Square	F	Sig.
BK	Between Groups	(Combined)		3.750	2	1.875	.081	.923
		Linear Term	Contrast	3.061	1	3.061	.132	.729
			Deviation	.690	1	.690	.030	.869
	Within Groups			138.973	6	23.162		
	Total			142.723	8			
BO	Between Groups	(Combined)		1.239	2	.620	35.735	.000
		Linear Term	Contrast	.607	1	.607	34.975	.001
			Deviation	.633	1	.633	36.496	.001
	Within Groups			.104	6	.017		
	Total			1.344	8			
PK	Between Groups	(Combined)		.766	2	.383	.229	.802
		Linear Term	Contrast	.453	1	.453	.271	.621
			Deviation	.313	1	.313	.187	.680
	Within Groups			10.030	6	1.672		
	Total			10.796	8			
LK	Between Groups	(Combined)		2.185	2	1.092	.367	.707
		Linear Term	Contrast	1.123	1	1.123	.377	.562
			Deviation	1.061	1	1.061	.356	.572
	Within Groups			17.864	6	2.977		
	Total			20.049	8			
BETN	Between Groups	(Combined)		1.213	2	.607	7.848	.021
		Linear Term	Contrast	.247	1	.247	3.199	.124
			Deviation	.966	1	.966	12.498	.012
	Within Groups			.464	6	.077		
	Total			1.677	8			

Lampiran 8. Hasil Analisis DMRT Komposisi kimia dangke dari Kecamatan di Kabupaten Enrekang

**BK**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05
		1
Enrekang	3	55.7545
Cendana	3	55.8816
Anggeraja	3	57.1830
Sig.		.737

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**BO**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05	
		1	2
Enrekang	3	1.0203	
Anggeraja	3		1.6562
Cendana	3		1.9008
Sig.		1.000	.063

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**PK**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05
		1
Cendana	3	14.7744
Enrekang	3	14.8953
Anggeraja	3	15.4448
Sig.		.561

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**LK**

Duncan<sup>a</sup>

Asal Dangke	N	Subset for alpha = 0.05
		1
Cendana	3	19.5168
Enrekang	3	19.8126
Anggeraja	3	20.6780
Sig.		.455

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**BETN**

Duncan<sup>a</sup>

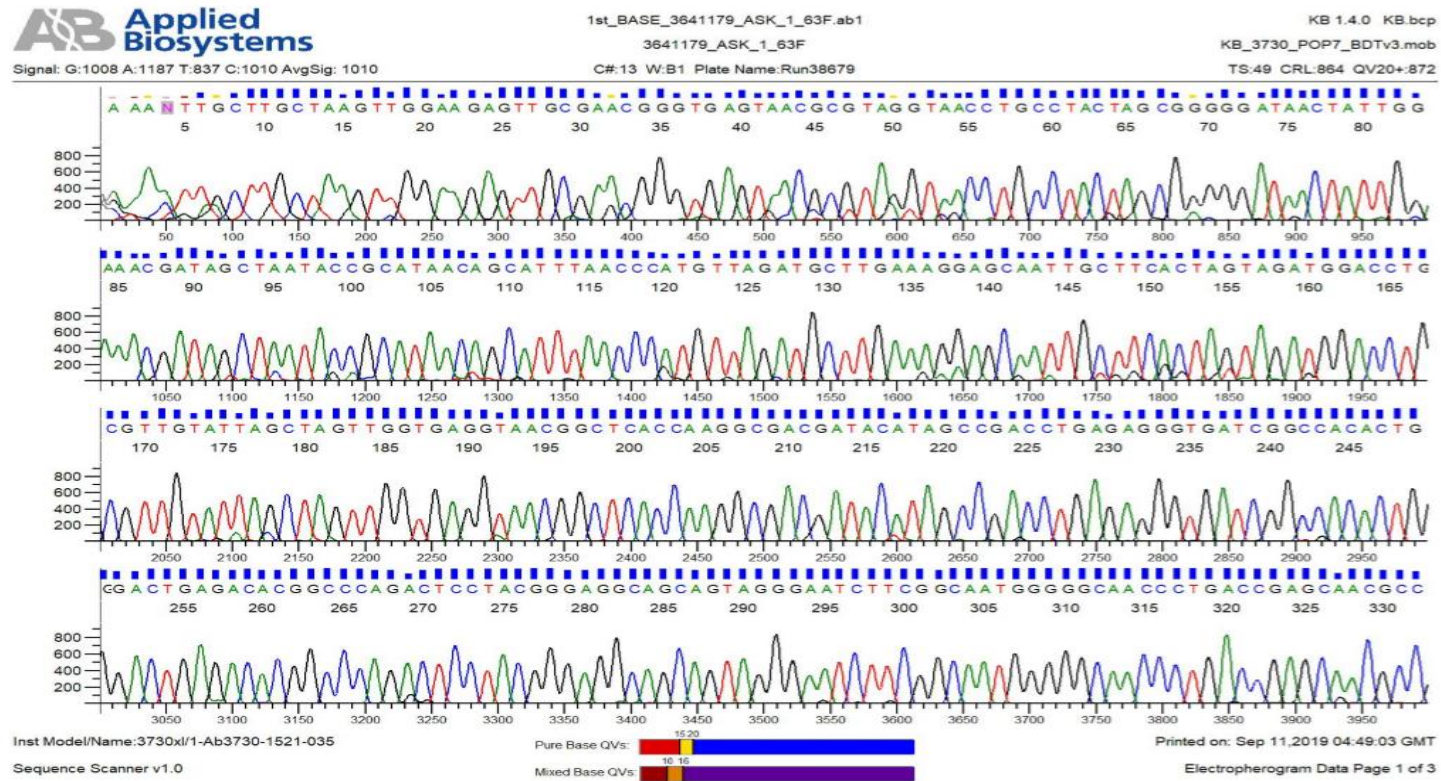
Asal Dangke	N	Subset for alpha = 0.05	
		1	2
Anggeraja	3	3.0380	
Enrekang	3	3.4440	3.4440
Cendana	3		3.9360
Sig.		.124	.073

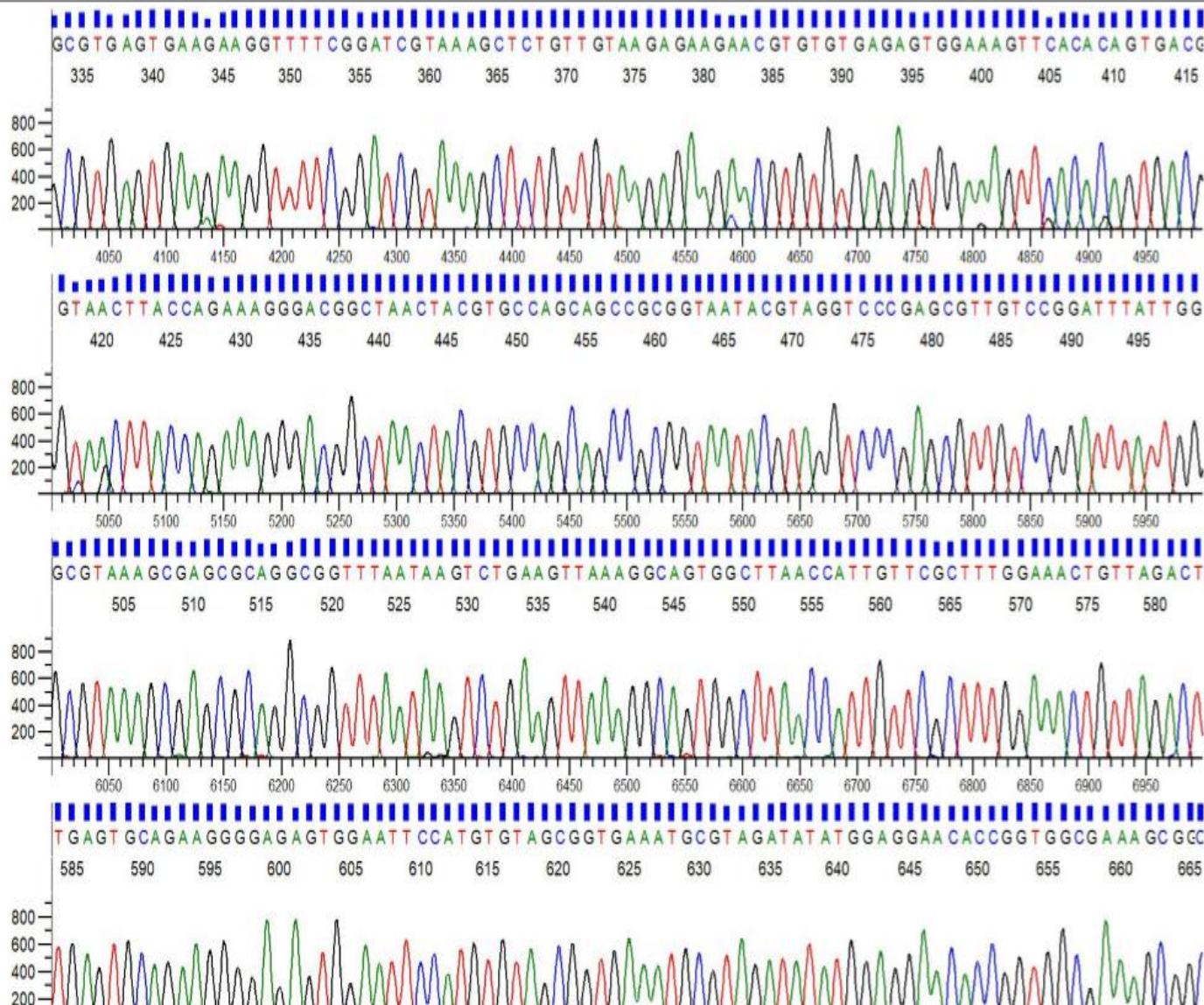
Means for groups in homogeneous subsets are displayed.

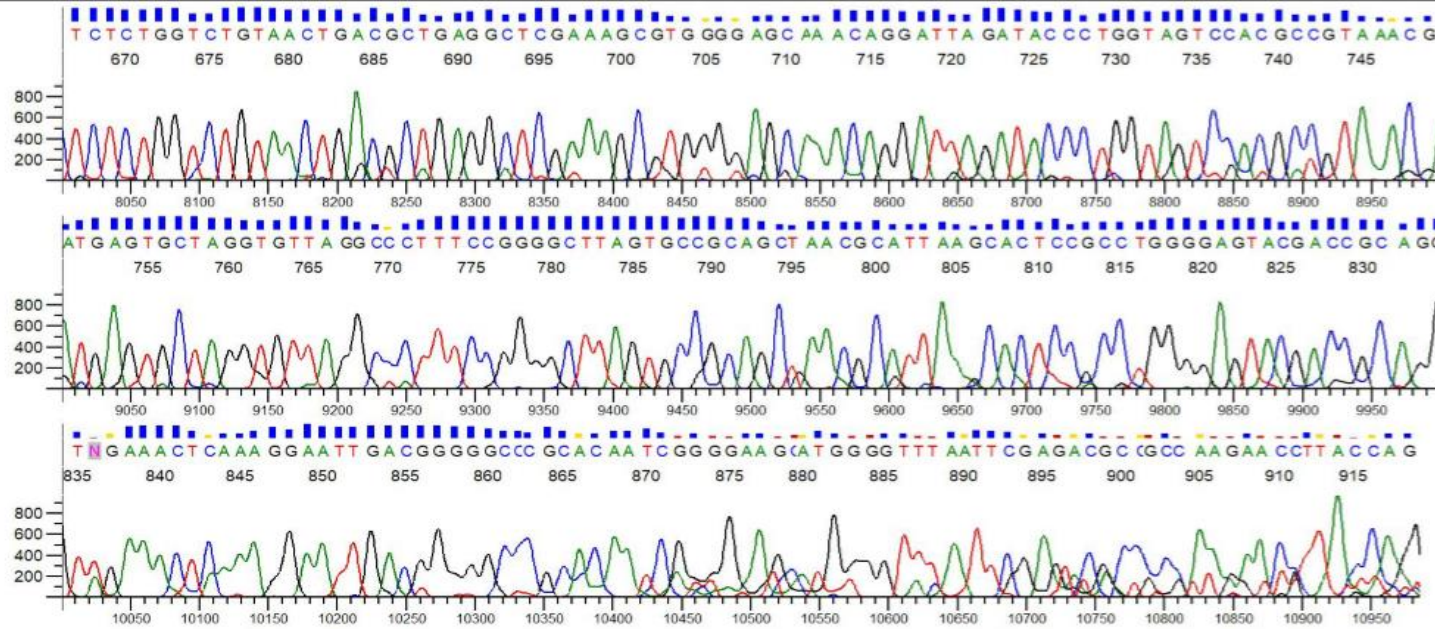
a. Uses Harmonic Mean Sample Size = 3.000.

# Lampiran 9. PCR dan Sequencing rRNA BAL Indigenous

## ASK1

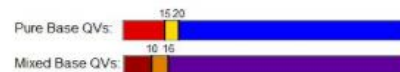






Inst Model/Name:3730xl/1-Ab3730-1521-035

Sequence Scanner v1.0



Printed on: Sep 11, 2019 04:49:03 GMT

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ASK2



Signal: G:296 A:272 T:219 C:199 AvgSig: 246

1st\_BASE\_3641180\_ASK\_2\_63F.ab1

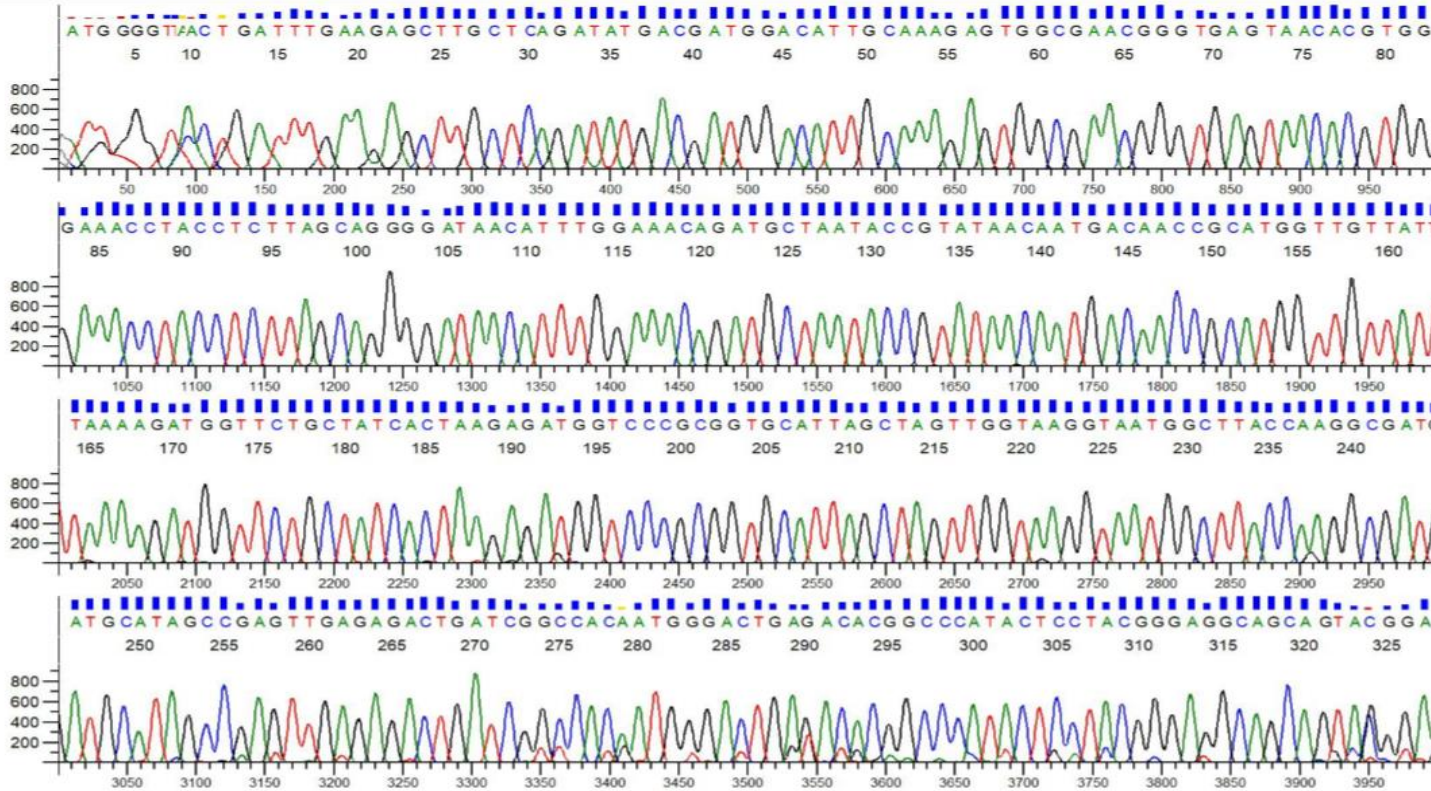
3641180\_ASK\_2\_63F

C#:1 W:H1 Plate Name:Run38683

KB 1.4.0 KB.bcp

KB\_3730\_POP7\_BDTv3.mob

TS:42 CRL:470 QV20+:486



Inst Model/Name:3730xl/1-Ab3730-1521-035

Sequence Scanner v1.0



Printed on: Sep 11, 2019 04:51:59 GMT

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1st\_BASE\_3641180\_ASK\_2\_63F.ab1

KB 1.4.0 KB.bcp

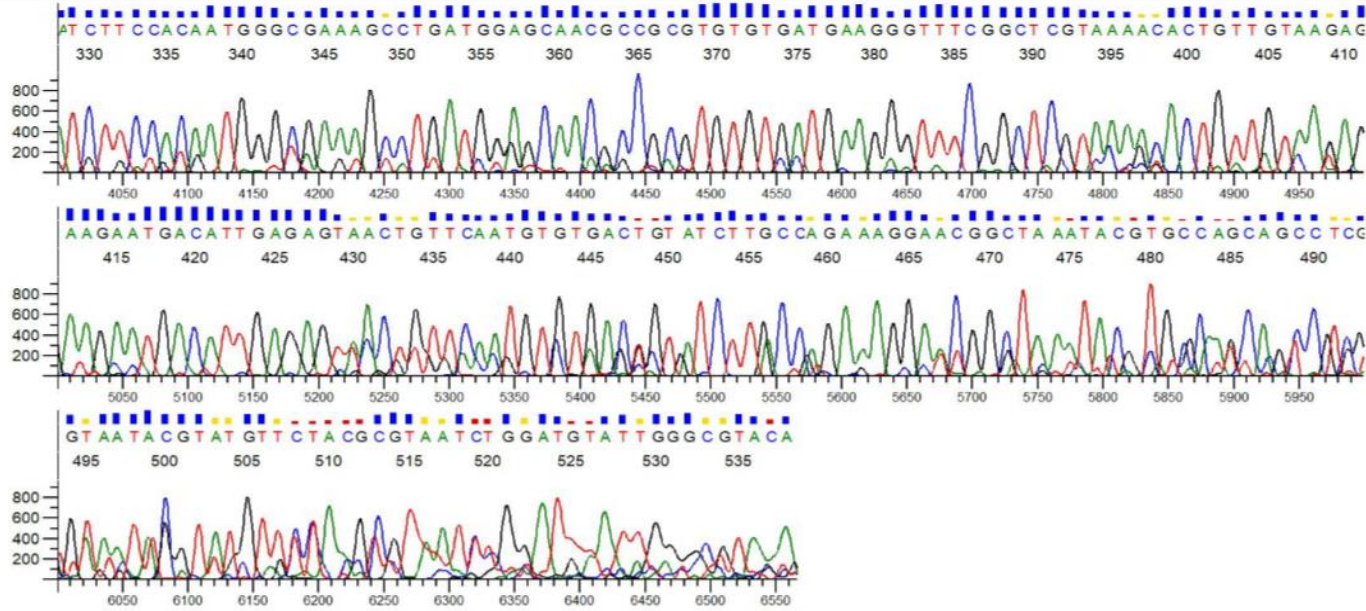
3641180\_ASK\_2\_63F

KB\_3730\_POP7\_BDTv3.mob

Signal: G:296 A:272 T:219 C:199 AvgSig: 246

C#:1 W:H1 Plate Name:Run38683

TS:42 CRL:470 QV20+:486



Inst Model/Name:3730xl/1-Ab3730-1521-035

Sequence Scanner v1.0



Printed on: Sep 11, 2019 04:51:59 GMT

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ASK3



1st\_BASE\_3641181\_ASK\_3\_63F.ab1

KB 1.4.0 KB.bcp

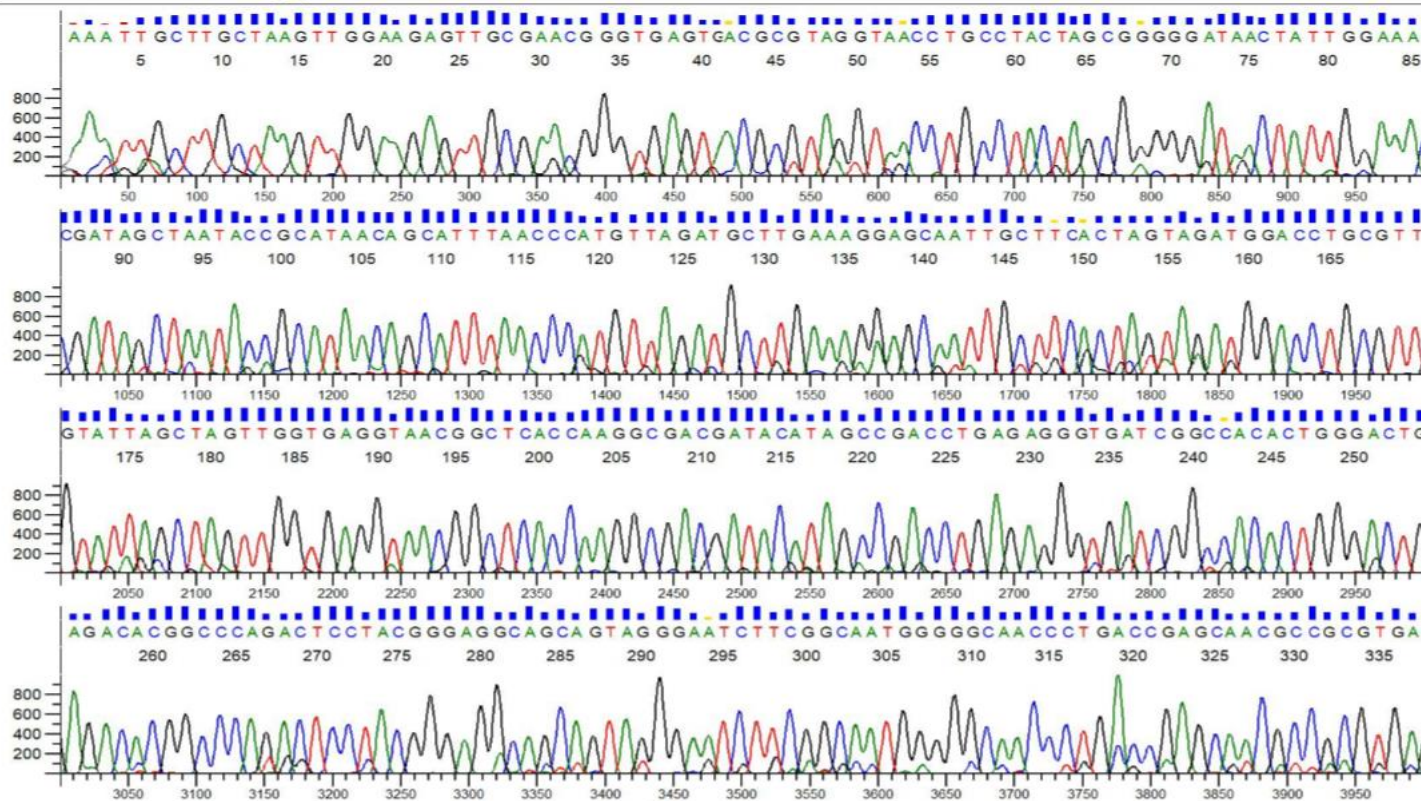
3641181\_ASK\_3\_63F

KB\_3730\_POP7\_BDTv3.mob

Signal: G:1263 A:2001 T:1632 C:2040 AvgSig: 1734

C#:11 W:C1 Plate Name:Run38679

TS:47 CRL:1158 QV20+:1169



Inst Model/Name: 3730xl/1-Ab3730-1521-035

Pure Base QVs: 1520

Printed on: Sep 11, 2019 04:52:13 GMT

Sequence Scanner v1.0

Mixed Base QVs: 10 16

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1st\_BASE\_3641181\_ASK\_3\_63F.ab1

KB 1.4.0 KB.bcp

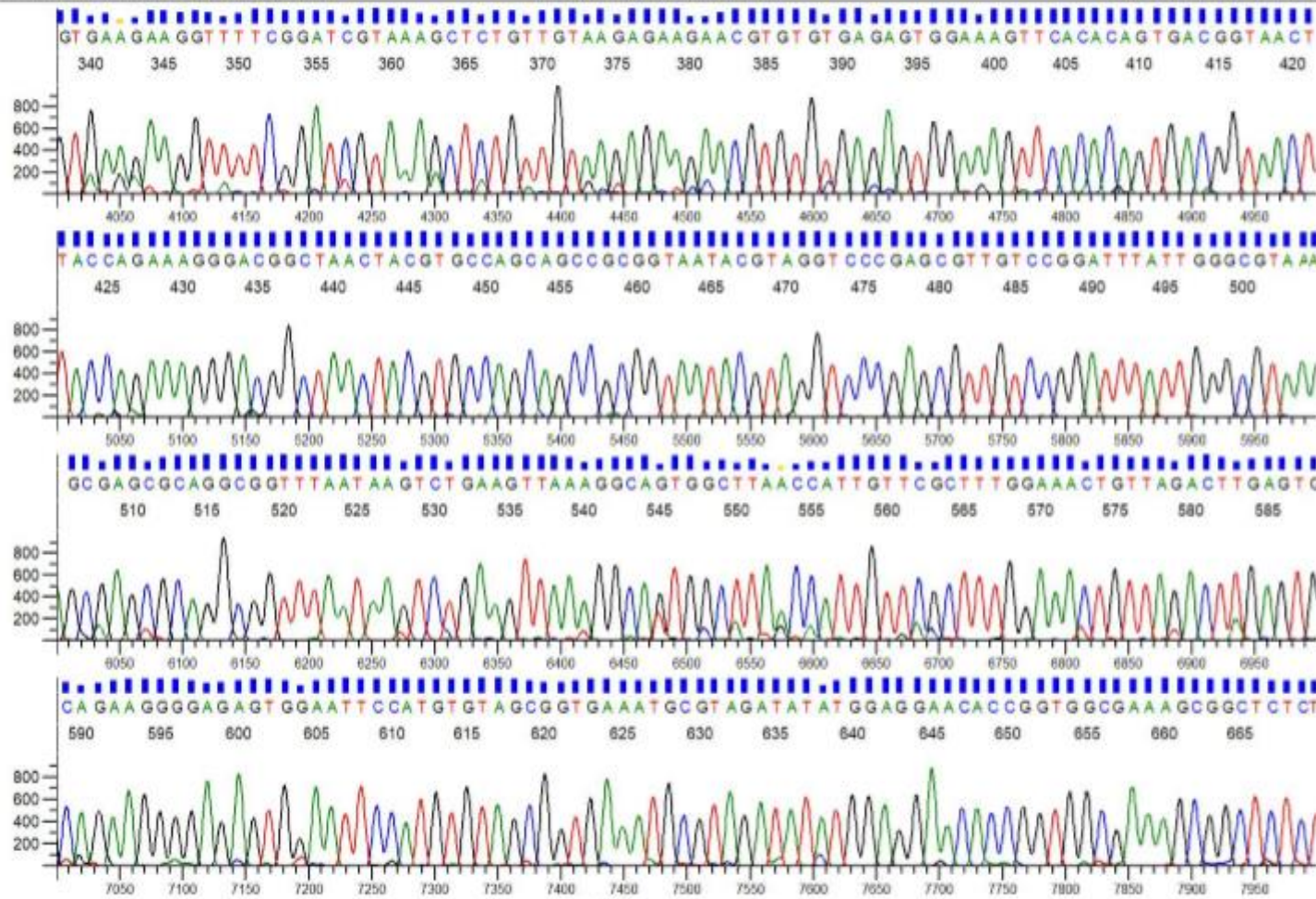
3641181\_ASK\_3\_63F

KB\_3730\_POP7\_BDTv3.mob

Signal: G:1263 A:2001 T:1632 C:2040 AvgSig: 1734

C#:11 W:C1 Plate Name:Run38679

TS:47 CRL:1158 QV20+:1189



Inst Model/Name:3730xl/1-Ab3730-1521-035

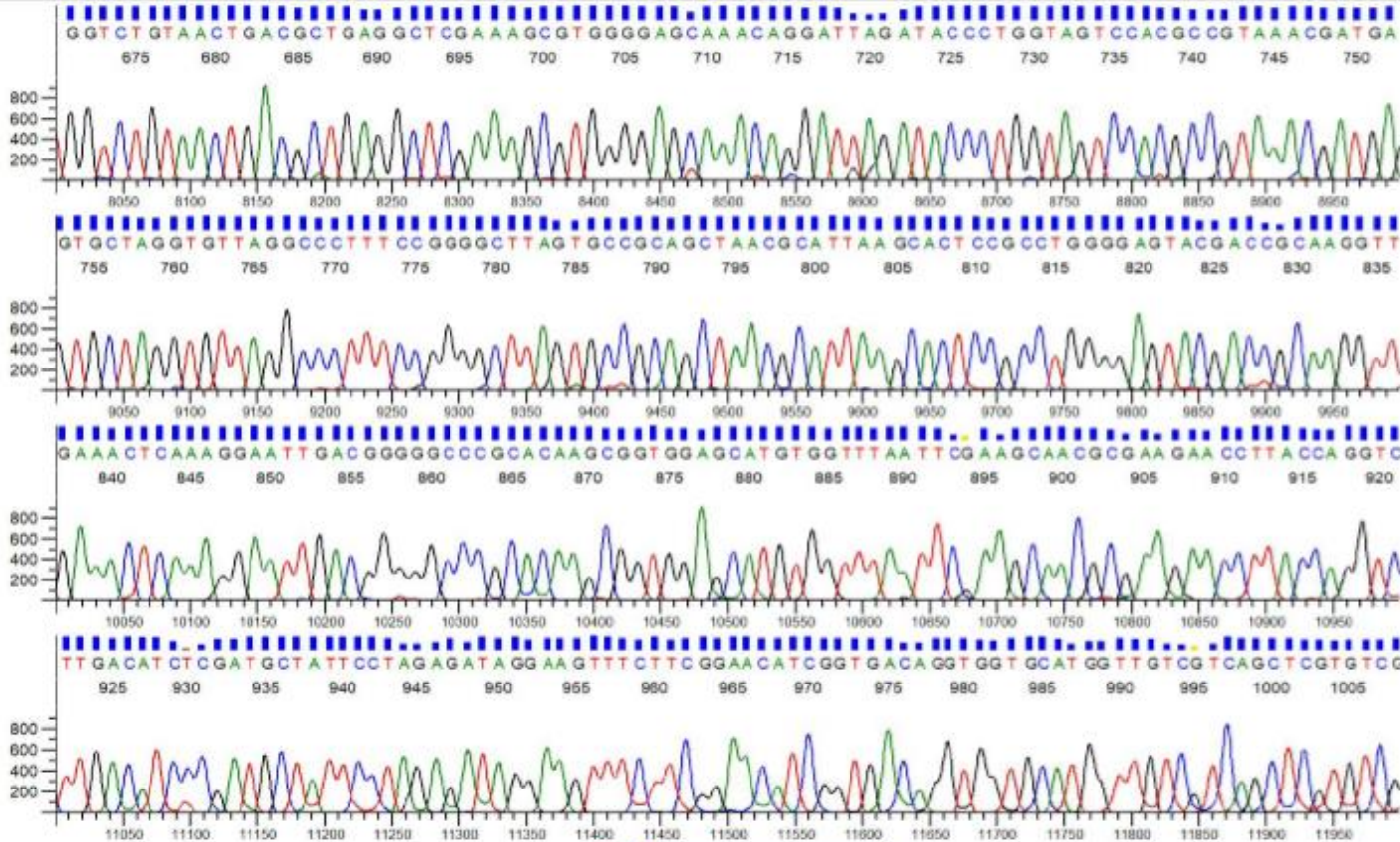


Printed on: Sep 11, 2019 04:52:13 GMT

Sequence Scanner v1.0

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Signal: G:1263 A:2001 T:1632 C:2040 AvgSig: 1734

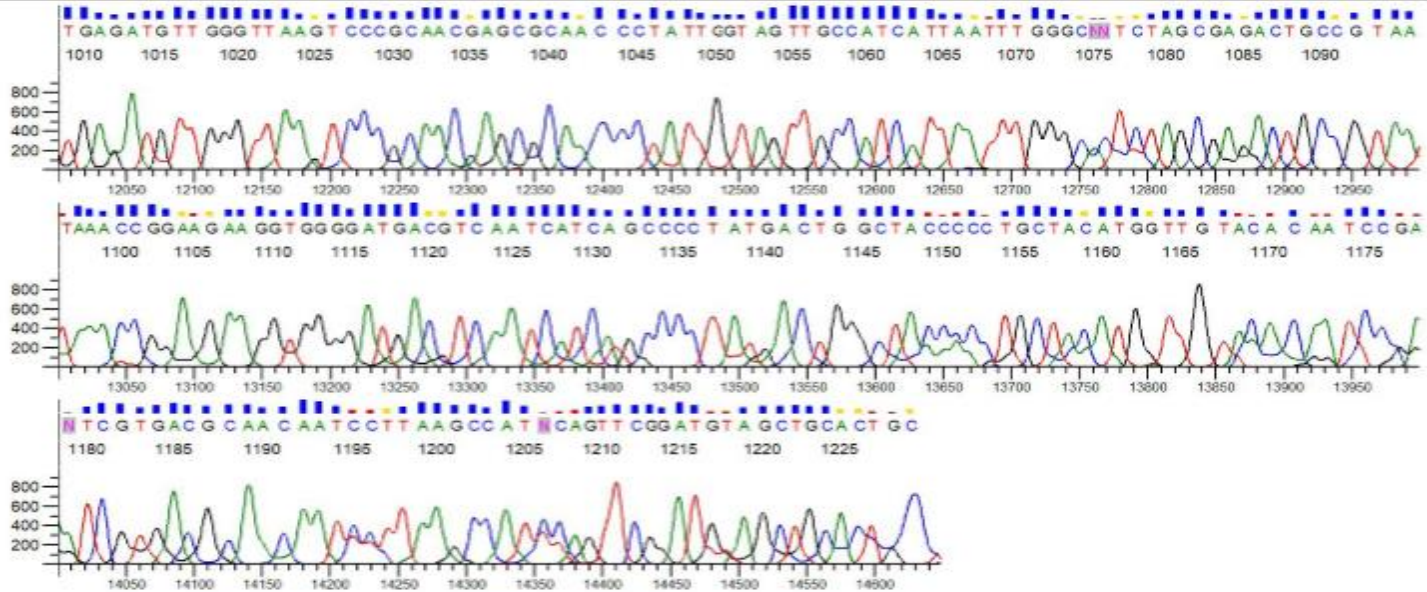


Inst Model Name: 3730xl/1-Ab3730-1521-035  
 Sequence Scanner v1.0



Printed on: Sep 11, 2019 04:52:13 GMT  
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Signal: G:1263 A:2001 T:1632 C:2040 AvgSig: 1734



Inst Model/Name:3730xl/1-Ab3730-1521-035

Sequence Scanner v1.0



Printed on: Sep 11, 2019 04:52:13 GMT

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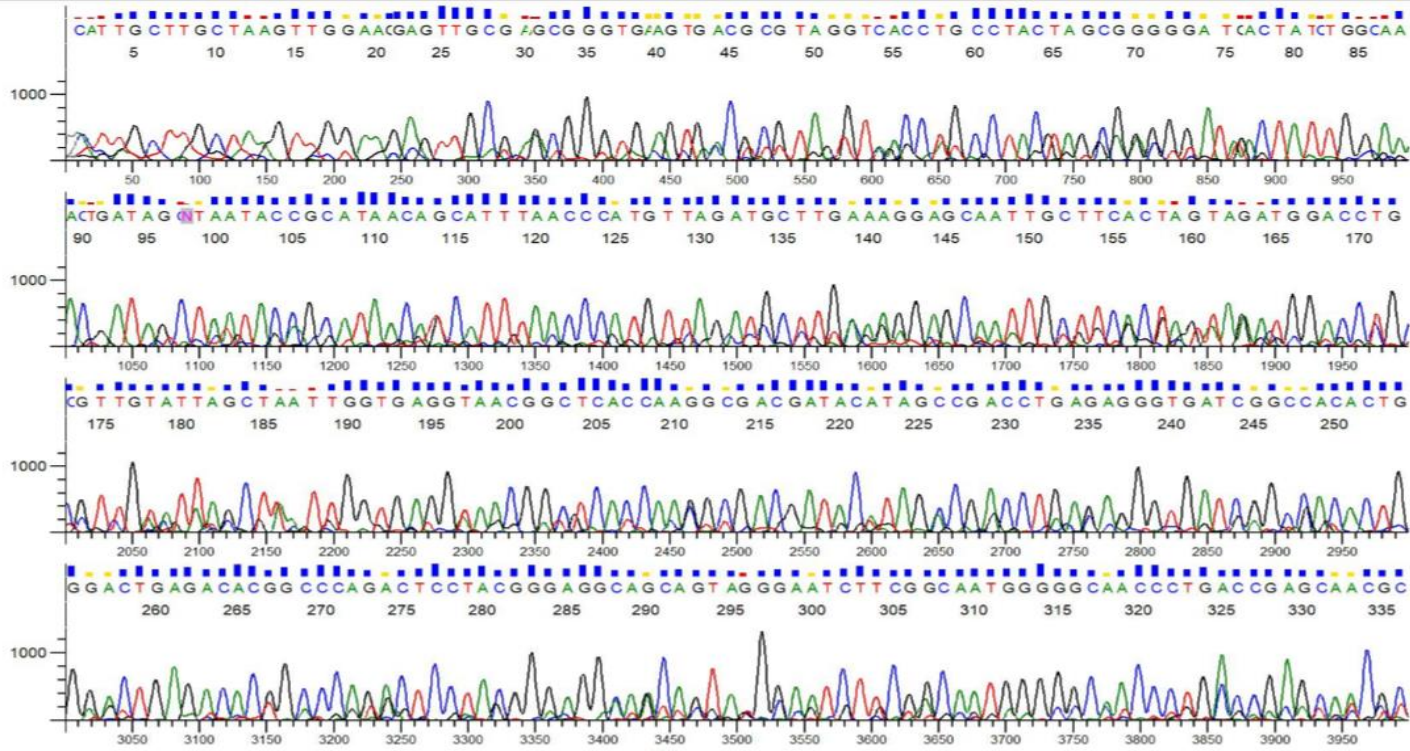
ASK4



Signal: G:626 A:763 T:541 C:676 AvgSig: 651

1st\_BASE\_3641182\_ASK\_4\_63F.ab1  
 3641182\_ASK\_4\_63F  
 C#:16 W:A2 Plate Name:Run38683

KB 1.4.0 KB.bcp  
 KB\_3730\_POP7\_BDTv3.mob  
 TS:31 CRL:377 QV20+:914



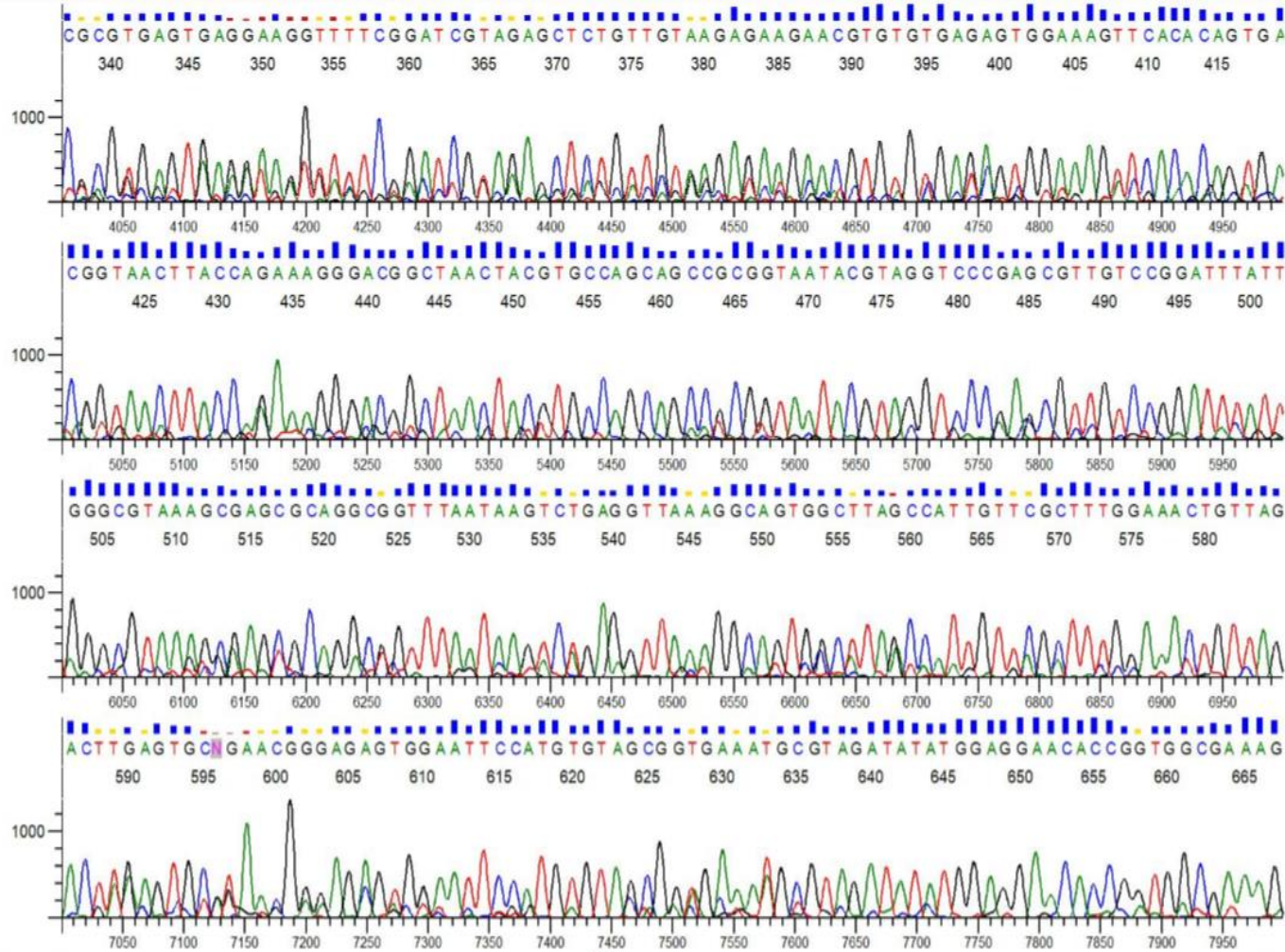
Inst Model/Name:3730xl/1-Ab3730-1521-035

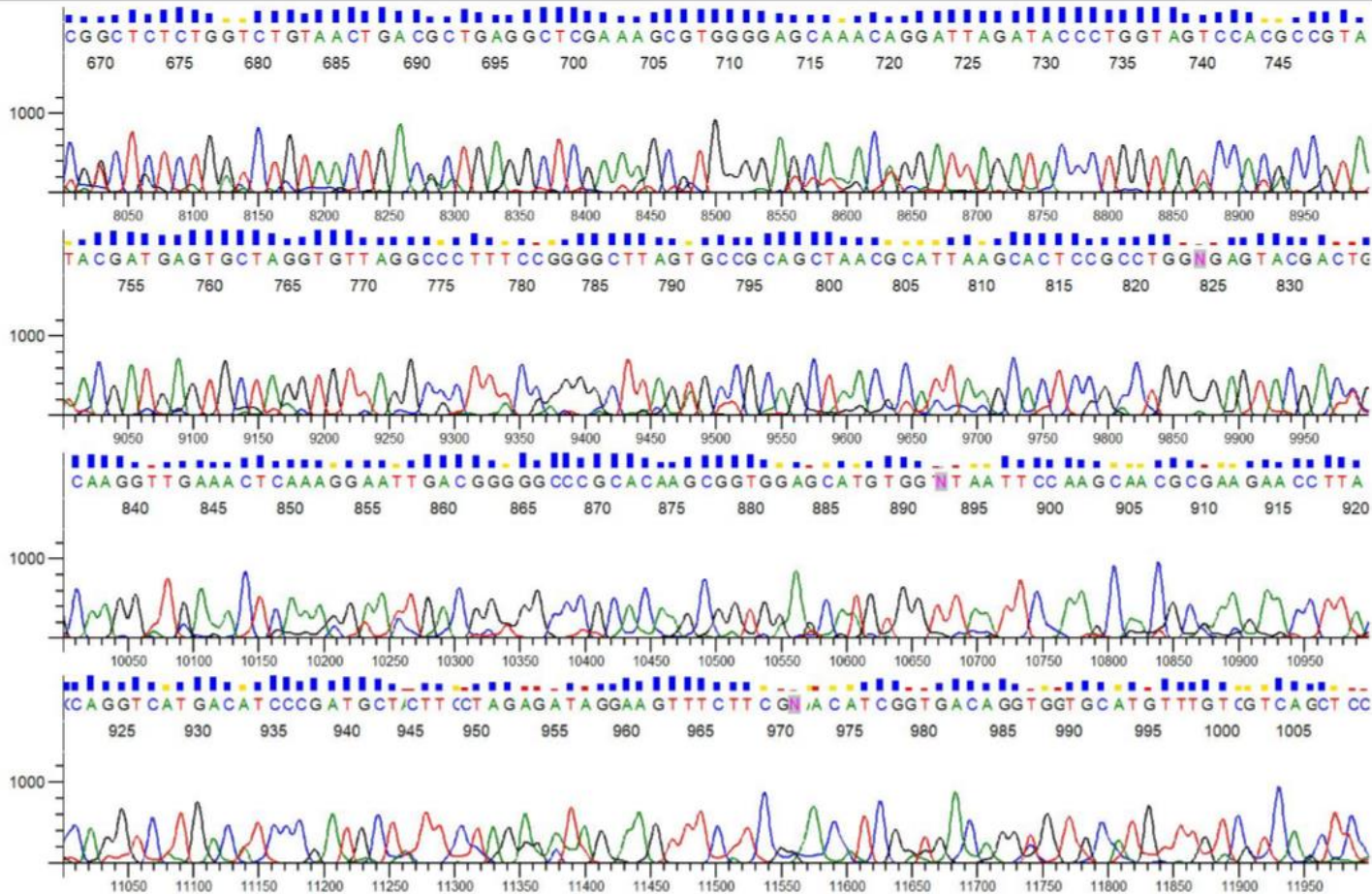
Sequence Scanner v1.0



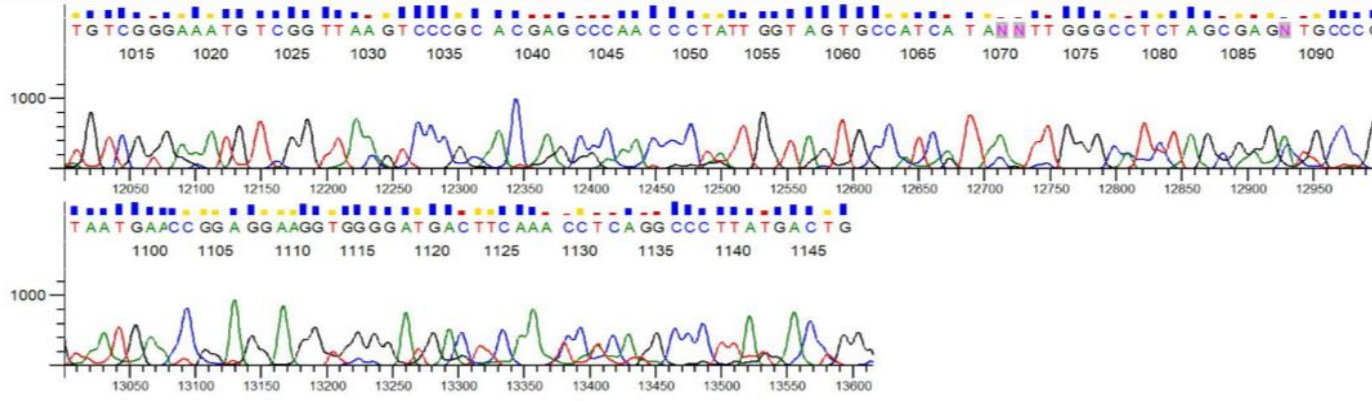
Printed on: Sep 11, 2019 04:53:06 GMT

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Signal: G:626 A:763 T:541 C:676 AvgSig: 651



Inst Model/Name: 3730xl/1-Ab3730-1521-035  
 Sequence Scanner v1.0



Printed on: Sep 11, 2019 04:53:06 GMT  
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Lampiran 10. Tingkat kekerasan, pH dan total asam Dangke yang telah dinokulasikan BAL Indigenous

Isolat	Lama Peram	Hardness	pH	Total Asam
1	1	0.2	0.67	0.68
1	1	0.47	0.67	0.32
1	1	0.47	0.31	0.32
2	1	0.32	6.5	0.45
2	1	1.07	6.6	0.72
2	1	1.59	6.5	0.36
3	1	0.91	6.5	0.54
3	1	0.41	6.6	0.54
3	1	0.28	6.5	0.27
4	1	0.38	6.6	0.81
4	1	1.75	6.7	0.36
4	1	0.31	6.2	0.63
5	1	0.53	6.5	0.45
5	1	0.46	6.6	0.54
5	1	0.63	6.5	0.45
1	2	0.34	6.5	0.23
1	2	0.34	6.1	1.26
1	2	0.34	6.1	0.41
2	2	0.13	6.1	0.59
2	2	0.28	5.9	0.54
2	2	0.18	5.9	0.18
3	2	0.4	6.2	0.54
3	2	0.34	6.4	0.41
3	2	0.38	6.2	0.99
4	2	0.28	6.3	0.68
4	2	0.1	5.9	0.68
4	2	0.28	5.9	0.45
5	2	0.34	6	0.45
5	2	0.34	6.2	0.63
5	2	0.51	6	0.72
1	3	0.54	5.7	0.59
1	3	0.8	6.1	0.32
1	3	0.81	5.9	0.36

2	3	0.24	5.7	0.68
2	3	0.38	5.9	0.36
2	3	0.69	6	0.72
3	3	1.18	5.7	0.59
3	3	0.28	5.9	0.36
3	3	0.41	6	0.54
4	3	0.74	6	0.68
4	3	0.77	6.1	0.32
4	3	0.74	6.2	0.59
5	3	0.53	6	0.72
5	3	0.41	6.1	0.36
5	3	0.68	6.2	0.32
1	4	0.49	6.1	0.23
1	4	0.44	6.1	0.63
2	4	0.52	6	0.9
2	4	0.6	6.1	0.63
2	4	0.47	6	0.81
3	4	0.63	6	0.72
3	4	0.54	6.1	0.36
3	4	0.26	6.1	0.41
4	4	0.61	6.1	0.45
4	4	0.31	6.1	0.27
4	4	0.47	6.1	0.68
5	4	0.51	6.1	0.95
5	4	0.28	6.1	0.86
5	4	0.28	6	0.63

Lampiran 11. Komposisi kimia dangke yang telah diinokulasikan

Isolat	Ripening	BK	BO	PK	LK
1	1	31.62	97.95	13.89	8.19
1	1	29.65	98.08	13.02	7.67
1	1	43.97	97.15	19.31	11.38
2	1	51.99	96.65	22.57	12.9
2	1	45.49	97.07	19.75	11.28
2	1	45.99	97.04	19.96	11.41
3	1	45.46	96.88	20.36	9.53
3	1	46.89	96.79	21	9.83
3	1	48.33	96.69	21.64	10.13
4	1	47.98	97.34	20.73	14.37
4	1	53.26	97.05	23.01	15.95
4	1	50.62	97.2	21.87	15.16
5	1	51.47	96.4	23.42	14.33
5	1	42.2	97.05	19.2	11.75
5	1	42.66	97.02	19.41	11.88
1	2	31.43	98.2	12.93	10.02
1	2	37.1	97.88	15.26	11.83
1	2	44.83	97.43	18.44	14.29
2	2	56.57	97.16	21.68	11.05
2	2	61.44	96.92	23.54	12
2	2	62.65	96.86	24.01	12.24
3	2	42.77	97.49	20.6	13.89
3	2	35.89	97.9	17.29	11.66
3	2	35.89	97.9	17.29	11.66
4	2	35.64	97.15	21.21	13.91
4	2	37.54	97	22.33	14.65
4	2	28.82	97.7	17.15	11.25
5	2	52.69	97.02	23.94	15.43
5	2	55.32	96.87	25.14	16.2
5	2	46.89	97.35	21.31	13.73
1	3	34.2	98.04	14.04	7.44
1	3	52.91	96.96	21.72	11.5
1	3	43.82	97.48	17.99	9.53
2	3	49.79	97.07	23.17	13.42

2	3	44.62	97.38	20.77	12.03
2	3	36.64	97.85	17.05	9.87
3	3	48.64	97.12	18.44	15.94
3	3	50.78	97	19.25	16.64
3	3	55.05	96.75	20.87	18.05
4	3	61.99	97.24	18.85	13.12
4	3	72.89	96.76	22.16	
4	3	54.5	97.58	16.57	11.54
5	3	44.49	97.12	20.47	11.16
5	3	45.88	97.03	21.11	11.51
5	3	44.95	97.09	20.68	11.28
1	4	25.74	97.01	20.97	15.81
1	4	21.2	97.54	17.27	13.02
2	4	41.52	97.44	16.9	11.66
2	4	51.15	96.85	20.82	14.36
2	4	49.63	96.94	20.2	13.94
3	4	46.64	97.24	18.41	16.3
3	4	39.7	97.65	15.66	13.87
3	4	41.68	97.53	16.45	14.57
4	4	50.17	96.36	20.83	14.14
4	4	48.12	96.51	19.98	13.56
4	4	50.68	96.33	21.05	14.29
5	4	44.61	97.21	20.97	14.86
5	4	52.13	96.74	24.5	17.36
5	4	39.45	97.53	18.54	13.14

Lampiran 12. Hasil analisis faktorial Tingkat kekerasan, pH, total asam, dan komposisi kimia dangke yang telah diinokulasi

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Bahan Kering	4042.767 <sup>a</sup>	19	212.777	7.741	.000
	Bahan Organik	7.224 <sup>b</sup>	19	.380	3.846	.000
	Protein Kasar	266.097 <sup>c</sup>	19	14.005	2.772	.003
	Lemak Kasar	242.634 <sup>d</sup>	19	12.770	5.965	.000
	Hardness dangke indo	2.202 <sup>e</sup>	19	.116	1.369	.199
	pHbaru	92.046 <sup>f</sup>	19	4.845	244.400	.000
	Asambaru	.705 <sup>g</sup>	19	.037	.749	.747
Intercept	Bahan Kering	119423.910	1	119423.910	4344.605	.000
	Bahan Organik	553007.594	1	553007.594	5593888.519	.000
	Protein Kasar	22872.336	1	22872.336	4526.878	.000
	Lemak Kasar	9724.053	1	9724.053	4542.222	.000
	Hardness dangke indo	14.918	1	14.918	176.238	.000
	pHbaru	2017.562	1	2017.562	101782.836	.000
	Asambaru	17.271	1	17.271	348.558	.000
Isolat	Bahan Kering	1604.024	4	401.006	14.588	.000
	Bahan Organik	2.415	4	.604	6.106	.001
	Protein Kasar	148.941	4	37.235	7.370	.000
	Lemak Kasar	57.611	4	14.403	6.728	.000
	Hardness dangke indo	.088	4	.022	.259	.902
	pHbaru	18.894	4	4.723	238.293	.000
	Asambaru	.090	4	.022	.453	.770
Ripening	Bahan Kering	440.624	3	146.875	5.343	.004
	Bahan Organik	.933	3	.311	3.148	.036
	Protein Kasar	4.727	3	1.576	.312	.817
	Lemak Kasar	51.348	3	17.116	7.995	.000
	Hardness dangke indo	1.123	3	.374	4.421	.009
	pHbaru	5.965	3	1.988	100.312	.000
	Asambaru	.125	3	.042	.841	.480
Isolat * Ripening	Bahan Kering	2243.798	12	186.983	6.802	.000
	Bahan Organik	3.618	12	.301	3.050	.004
	Protein Kasar	95.328	12	7.944	1.572	.141
	Lemak Kasar	126.124	12	10.510	4.910	.000

	Hardness dangke indo	.986	12	.082	.971	.492
	pHbaru	63.635	12	5.303	267.522	.000
	Asambaru	.482	12	.040	.811	.638
	Bahan Kering	1072.027	39	27.488		
	Bahan Organik	3.856	39	.099		
	Protein Kasar	197.050	39	5.053		
Error	Lemak Kasar	83.492	39	2.141		
	Hardness dangke indo	3.301	39	.085		
	pHbaru	.773	39	.020		
	Asambaru	1.932	39	.050		
	Bahan Kering	127451.957	59			
	Bahan Organik	557381.425	59			
	Protein Kasar	23542.111	59			
Total	Lemak Kasar	10087.856	59			
	Hardness dangke indo	20.580	59			
	pHbaru	2123.664	59			
	Asambaru	20.171	59			
	Bahan Kering	5114.793	58			
	Bahan Organik	11.080	58			
	Protein Kasar	463.147	58			
Corrected Total	Lemak Kasar	326.126	58			
	Hardness dangke indo	5.503	58			
	pHbaru	92.819	58			
	Asambaru	2.638	58			

- a. R Squared = .790 (Adjusted R Squared = .688)
- b. R Squared = .652 (Adjusted R Squared = .482)
- c. R Squared = .575 (Adjusted R Squared = .367)
- d. R Squared = .744 (Adjusted R Squared = .619)
- e. R Squared = .400 (Adjusted R Squared = .108)
- f. R Squared = .992 (Adjusted R Squared = .988)
- g. R Squared = .267 (Adjusted R Squared = -.089)

Lampiran 13. Hasil analisis DMRT Tingkat kekerasan, pH, total asam tertitrasi dan komposisi kimia dangke yang diinokulasi

Bahan Kering					Bahan Organik			
Duncan <sup>a,b</sup>					Duncan <sup>a,b,c</sup>			
Jenis Isolat	N	Subset			Jenis Isolat	N	Subset	
		1	2	3			1	2
no isolat	11	36.0440			isolat 6	12	97.0184	
isolat 5	12		44.8093		isolat 2	12	97.0356	
isolat 2	12		46.8944	46.8944	isolat 222	12	97.1027	
isolat 6	12		49.3503	49.3503	isolat 5	12	97.2441	
isolat 222	12			49.7900	no isolat	11		97.6112
Sig.		1.000	.053	.214	Sig.		.119	1.000

Means for groups in homogeneous subsets are displayed.  
Based on observed means.

The error term is Mean Square(Error) = 27.488.

a. Uses Harmonic Mean Sample Size = 11.786.

b. Alpha = .05.

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .099.

a. Uses Harmonic Mean Sample Size = 11.786.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Protein Kasar					Lemak Kasar			
Duncan <sup>a,b</sup>					Duncan <sup>a,b</sup>			
Jenis Isolat	N	Subset			Jenis Isolat	N	Subset	
		1	2	3			1	2
no isolat	11	16.8031			no isolat	11	10.9716	
isolat 5	12		18.9372		isolat 222	12	12.1793	
isolat 6	12		20.4778	20.4778	isolat 5	12		13.5057
isolat 222	12		20.8678	20.8678	isolat 2	12		13.5529
isolat 2	12			21.5563	isolat 6	12		13.9472
Sig.		1.000	.055	.280	Sig.		.052	.496

Means for groups in homogeneous subsets are displayed.  
Based on observed means.

The error term is Mean Square(Error) = 5.053.

a. Uses Harmonic Mean Sample Size = 11.786.

b. Alpha = .05.

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 2.141.

a. Uses Harmonic Mean Sample Size = 11.786.

b. Alpha = .05.

Hardness dangke indo		
Duncan <sup>a,b,c</sup>		
Jenis Isolat	N	Subset
		1
isolat 2	12	.4546
no isolat	11	.4750
isolat 5	12	.5000
isolat 222	12	.5363
isolat 6	12	.5592
Sig.		.445

pHbaru			
Duncan <sup>a,b</sup>			
Jenis Isolat	N	Subset	
		1	2
no isolat	11	4.5682	
isolat 222	12		6.1000
isolat 6	12		6.1833
isolat 5	12		6.1833
isolat 2	12		6.1917
Sig.		1.000	.157

Means for groups in homogeneous subsets are displayed.  
 Based on observed means.  
 The error term is Mean Square(Error) = .085.  
 a. Uses Harmonic Mean Sample Size = 11.786.  
 b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.  
 c. Alpha = .05.

**Asambaru**

Duncan<sup>a,b</sup>

Jenis Isolat	N	Subset	
		1	2
no isolat	11	.4836	
isolat 5	12	.5217	
isolat 6	12	.5480	
isolat 222	12	.5780	
isolat 2	12	.5893	
Sig.		.313	

Means for groups in homogeneous subsets are displayed.  
 Based on observed means.  
 The error term is Mean Square(Error) = .050.  
 a. Uses Harmonic Mean Sample Size = 11.786.  
 b. Alpha = .05.

**Bahan Organik**

Duncan<sup>a,b</sup>

Ripening time	N	Subset	
		1	2
9 hari	14	97.0626	
0 hari	15	97.0909	
6 hari	15	97.2308	97.2308
3 hari	15		97.3886
Sig.		.178	.181

Means for groups in homogeneous subsets are displayed.  
 Based on observed means.  
 The error term is Mean Square(Error) = .099.  
 a. Uses Harmonic Mean Sample Size = 14.737.  
 b. Alpha = .05.

Means for groups in homogeneous subsets are displayed.  
 Based on observed means.  
 The error term is Mean Square(Error) = .020.  
 a. Uses Harmonic Mean Sample Size = 11.786.  
 b. Alpha = .05.

**Bahan Kering**

Duncan<sup>a,b</sup>

Ripening time	N	Subset	
		1	2
9 hari	14	43.0294	
3 hari	15	44.3658	
0 hari	15	45.1723	
6 hari	15		49.4087
Sig.		.303	1.000

Means for groups in homogeneous subsets are displayed.  
 Based on observed means.  
 The error term is Mean Square(Error) = 27.488.  
 a. Uses Harmonic Mean Sample Size = 14.737.  
 b. Alpha = .05.

**Lemak Kasar**

Duncan<sup>a,b</sup>

Jenis Isolat	N	Subset	
		1	2
no isolat	11	10.9716	
isolat 222	12	12.1793	
isolat 5	12		13.5057
isolat 2	12		13.5529
isolat 6	12		13.9472
Sig.		.052	.496

Means for groups in homogeneous subsets are displayed.  
 Based on observed means.  
 The error term is Mean Square(Error) = 2.141.  
 a. Uses Harmonic Mean Sample Size = 11.786.  
 b. Alpha = .05.



**Protein Kasar**

Duncan<sup>a,b</sup>

Jenis Isolat	N	Subset		
		1	2	3
no isolat	11	16.8031		
isolat 5	12		18.9372	
isolat 6	12		20.4778	20.4778
isolat 222	12		20.8678	20.8678
isolat 2	12			21.5563
Sig.		1.000	.055	.280

Means for groups in homogeneous subsets are displayed.  
Based on observed means.  
The error term is Mean Square(Error) = 5.053.  
a. Uses Harmonic Mean Sample Size = 11.786.  
b. Alpha = .05.

**Hardness dangke indo**

Duncan<sup>a,b,c</sup>

Jenis Isolat	N	Subset
		1
isolat 2	12	.4546
no isolat	11	.4750
isolat 5	12	.5000
isolat 222	12	.5363
isolat 6	12	.5592
Sig.		.445

Means for groups in homogeneous subsets are displayed.  
Based on observed means.  
The error term is Mean Square(Error) = .085.  
a. Uses Harmonic Mean Sample Size = 11.786.  
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.  
c. Alpha = .05.

**pHbaru**

Duncan<sup>a,b</sup>

Jenis Isolat	N	Subset	
		1	2
no isolat	11	4.5682	
isolat 222	12		6.1000
isolat 6	12		6.1833
isolat 5	12		6.1833
isolat 2	12		6.1917
Sig.		1.000	.157

Means for groups in homogeneous subsets are displayed.  
Based on observed means.  
The error term is Mean Square(Error) = .020.  
a. Uses Harmonic Mean Sample Size = 11.786.  
b. Alpha = .05.

**Asambaru**

Duncan<sup>a,b,c</sup>

Ripening time	N	Subset
		1
0 hari	15	.4958
6 hari	15	.4984
3 hari	15	.5825
9 hari	14	.6080
Sig.		.220

Means for groups in homogeneous subsets are displayed.  
Based on observed means.  
The error term is Mean Square(Error) = .050.  
a. Uses Harmonic Mean Sample Size = 14.737.  
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.  
c. Alpha = .05.

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	phsimpan	21.331 <sup>a</sup>	29	.736	31.844	.000
	tatsimpan	25.132 <sup>b</sup>	29	.867	8.878	.000
Intercept	phsimpan	2337.130	1	2337.130	101181.745	.000
	tatsimpan	43.440	1	43.440	444.999	.000
Simpan	phsimpan	20.387	5	4.077	176.523	.000
	tatsimpan	20.236	5	4.047	41.460	.000
Isolate	phsimpan	.441	4	.110	4.769	.004
	tatsimpan	2.399	4	.600	6.143	.001
Simpan * Isolate	phsimpan	.504	20	.025	1.090	.406
	tatsimpan	2.497	20	.125	1.279	.265
Error	phsimpan	.693	30	.023		
	tatsimpan	2.929	30	.098		
Total	phsimpan	2359.154	60			
	tatsimpan	71.501	60			
Corrected Total	phsimpan	22.024	59			
	tatsimpan	28.061	59			

a. R Squared = .969 (Adjusted R Squared = .938)

b. R Squared = .896 (Adjusted R Squared = .795)

**phsimpan**

Duncan<sup>a,b,c</sup>

Simpan	N	Subset				
		1	2	3	4	5
3 hari	10	5.5610				
4 hari	10	5.6060				
5 hari	10		5.9750			
2 hari	10			6.4150		
1 hari	10				6.7440	
0 hari	10					7.1460
Sig.		.513	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .023.

a. Uses Harmonic Mean Sample Size = 10.000.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

### tatsimpan

Duncan<sup>a,b,c</sup>

Simpan	N	Subset		
		1	2	3
0 hari	10	.1329		
1 hari	10	.3063		
2 hari	10	.4144		
3 hari	10		1.2926	
4 hari	10		1.3467	1.3467
5 hari	10			1.6124
Sig.		.065	.702	.067

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .098.

a. Uses Harmonic Mean Sample Size = 10.000.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

**phsimpan**

Duncan<sup>a,b,c</sup>

Isolate	N	Subset	
		1	2
s. lu	12	6.1292	
s.eq a	12	6.2075	
s.eq b	12	6.2250	
w. co	12	6.2525	
kontrol	12		6.3917
Sig.		.078	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .023.

a. Uses Harmonic Mean Sample Size = 12.000.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

**tatsimpan**

Duncan<sup>a,b,c</sup>

Isolate	N	Subset		
		1	2	3
kontrol	12	.6324		
s.eq a	12	.7432	.7432	
s.eq b	12	.7507	.7507	
w. co	12		.9233	
s. lu	12			1.2048
Sig.		.390	.192	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .098.

a. Uses Harmonic Mean Sample Size = 12.000.

### Lampiran 14.

#### Kualitas fisik dan mikrobiologis Dangke Kabupaten Enrekang

Parameter	Asal Dangke Kabupaten Enrekang		
	Enrekang	Cendana	Anggeraja
<b>pH</b>	6,14±0,24	6,18±0,13	6,23±0,06
<b>Total Asam Titrasi (%)</b>	0,71±0,16	0,67±0,21	0,69±0,11
<b>Hardness (Kg/cm<sup>2</sup>)</b>	0,64±0,09	0,69±0,17	0,58±0,04
<b>Total plate count (log CFU /ml)</b>	7,25	7,64	7,71

#### Komposisi kimia Dangke

Parameter	Asal Dangke Kabupaten Enrekang		
	Enrekang	Cendana	Anggeraja
<b>Kadar Air<sup>ns</sup></b>	55,75±4,21	55,88±2,91	57,18±6,57
<b>Abu</b>	1,02±0,07 <sup>a</sup>	1,90±0,09 <sup>b</sup>	1,65±0,19 <sup>b</sup>
<b>Protein Kasar<sup>ns</sup></b>	14,89±1,12	14,77±0,76	15,44±1,77
<b>Lemak Kasar<sup>ns</sup></b>	19,81±1,49	19,51±1,01	20,67±2,37
<b>BETN</b>	3,44±0,26 <sup>ab</sup>	3,93±0,20 <sup>b</sup>	3,03±0,34 <sup>a</sup>

Keterangan: a,b, c superskrip pada kolom yang sama berbeda secara signifikan (P<0,05)

### Lampiran 15

#### Kualitas Fisik Dangke yang diinokulasikan BAL Indigenous

Variabel	Waktu peram (hari)	Kontrol	Isolat				Mean±SD
			S. eq(a)	S. lu	S. eq(b)	W. co	
Hardness	0	0,37±0,15	0,99±0,63	0,53±0,32	0,81±0,81	0,53±0,08	0,64±0,47 <sup>y</sup>
	3	0,34±0,00	0,19±0,07	0,37±0,03	0,21±0,10	0,39±0,09	0,30±0,10 <sup>x</sup>
	6	0,71±0,15	0,43±0,23	0,62±0,48	0,74±0,01	0,53±0,13	0,61±0,24 <sup>y</sup>
	9	0,46±0,03	0,52±0,06	0,47±0,19	0,46±0,14	0,35±0,13	0,45±0,12 <sup>xy</sup>
	Mean±SD	0,47±0,18	0,53±0,42	0,50±0,28	0,55±0,43	0,45±0,12	
pH	0	6,76±0,05	6,53±0,05	6,53±0,05	6,50±0,26	6,53±0,05	6,57±0,14 <sup>z</sup>
	3	6,36±0,23	5,96±0,11	6,26±0,11	6,03±0,23	6,06±0,11	6,14±0,21 <sup>y</sup>
	6	6,06±0,11	5,93±0,11	5,90±0,20	5,86±0,15	6,10±0,10	5,97±0,15 <sup>x</sup>
	9	6,10±0,00	6,03±0,05	6,06±0,05	6,10±0,00	6,06±0,05	6,07±0,04 <sup>xy</sup>
	Mean±SD	6,34±0,32 <sup>b</sup>	6,11±0,26 <sup>a</sup>	6,19±0,26 <sup>a</sup>	6,12±0,29 <sup>a</sup>	6,19±0,21 <sup>a</sup>	
Total Asam	0	0,43±0,20	0,51±0,18	0,45±0,15	0,60±0,22	0,48±0,05	0,49±0,16
	3	0,63±0,55	0,43±0,22	0,64±0,30	0,60±0,13	0,60±0,13	0,58±0,27
	6	0,42±0,14	0,58±0,19	0,49±0,11	0,52±0,18	0,46±0,22	0,49±0,16
	9	0,43±0,28	0,78±0,13	0,49±0,19	0,46±0,20	0,81±0,16	0,60±0,23
	Mean±SD	0,48±0,30	0,57±0,20	0,52±0,19	0,54±0,17	0,58±0,19	

Keterangan:

S. eq= *Streptococcus equinus* strain TSGB1230

S. lu= *Streptococcus lutetiensis* strain TSGB1255

W. co= *Weissella confuse* strain qtfnm45

a,b, c superskrip pada baris yang sama berbeda secara signifikan (P<0,05)

x, y, z superskrip pada kolom yang sama berbeda secara signifikan (P<0,05)

**Lampiran 16.** Komposisi kimia dangke yang diinokulasikan BAL Indigenous

Variabel	Waktu peram (hari)	Kontrol	Isolat				Mean±SD
			S.eq(a)	S. lu	S.eq(b)	W. co	
Bahan Kering	0	35,08±7,76	47,82±3,61	46,89±1,43	50,62±2,63	45,44±5,22	45,17±6,78
	3	37,78±6,72	60,22±3,21	38,18±3,97	34,00±4,58	51,63±4,31	44,36±11,02
	6	43,64±9,35	43,68±6,62	51,49±3,26	63,12±9,24	45,10±0,70	49,40±9,58
	9	23,47±3,21	47,43±5,17	42,67±3,57	49,65±1,35	45,39±6,37	43,02±9,39
	Mean±SD	36,04±9,47 <sup>a</sup>	49,79±7,71 <sup>b</sup>	44,80±5,83 <sup>b</sup>	49,35±11,72 <sup>b</sup>	46,89±4,90 <sup>b</sup>	
Bahan Organik	0	97,72±0,50	96,91±0,23	96,78±0,09	97,19±0,14	96,82±0,36	97,09±0,44 <sup>xy</sup>
	3	97,83±0,38	96,98±0,16	97,76±0,23	97,28±0,36	97,07±0,24	97,38±0,43 <sup>y</sup>
	6	97,49±0,53	97,43±0,38	96,95±0,19	97,19±0,41	97,08±0,04	97,23±0,37 <sup>xy</sup>
	9	97,27±0,37	97,07±0,31	97,47±0,21	96,40±0,09	97,15±0,39	97,06±0,45 <sup>x</sup>
	Mean±SD	97,61±0,44 <sup>b</sup>	97,10±0,32 <sup>a</sup>	97,24±0,44 <sup>a</sup>	97,01±0,44 <sup>a</sup>	97,03±0,28 <sup>a</sup>	
Protein Kasar	0	15,40±3,41	20,75±1,56	21,00±0,64	21,86±1,13	20,67±2,37	19,94±2,96
	3	15,53±2,76	23,07±1,23	18,39±1,91	20,22±2,72	23,46±1,95	20,13±3,58
	6	17,99±3,84	20,32±3,08	19,51±1,23	19,19±2,81	20,75±0,32	19,54±2,42
	9	19,12±2,61	19,3±2,10	16,83±1,41	20,62±0,56	21,33±2,99	19,46±2,38
	Mean±SD	16,80±3,16 <sup>a</sup>	20,86±2,31 <sup>bc</sup>	18,93±1,97 <sup>b</sup>	20,47±2,02 <sup>bc</sup>	21,55±2,18 <sup>c</sup>	
Lemak kasar	0	9,08±2,01	11,86±0,89	9,82±0,30	15,15±0,78	12,65±1,45	11,71±2,46 <sup>x</sup>
	3	12,04±2,14	11,76±0,62	12,40±1,29	13,27±1,79	15,12±1,26	12,92±1,79 <sup>xy</sup>
	6	9,48±2,03	11,77±1,78	16,87±1,07	13,36±1,95	11,31±0,17	12,56±2,89 <sup>x</sup>
	9	14,41±1,97	13,31±1,45	14,91±1,25	13,99±0,38	15,11±2,12	14,34±1,43 <sup>y</sup>
	Mean±SD	10,97±2,71 <sup>a</sup>	12,17±1,28 <sup>ab</sup>	13,50±2,91 <sup>b</sup>	13,94±1,42 <sup>b</sup>	13,55±2,10 <sup>b</sup>	

Keterangan: S. eq= *Streptococcus equinus* strain TSGB1230; S. lu= *Streptococcus lutetiensis* strain TSGB1255  
W. co= *Weissella confuse* strain qtfnm45 ;a,b, c superskrip pada baris yang sama berbeda secara signifikan (P<0,05)  
x, y, z superskrip pada kolom yang sama berbeda secara signifikan (P<0,05)

**Lampiran 17.** pH dan total asam titrasi pada masa simpan dangke di suhu kamar

Variabel	Masa simpan (hari)	Kontrol	Isolat				Mean±SD
			S.eq(a)	S. lu	S.eq(b)	W. co	
pH	0	7,48±0,55	7,16±0,02	7,03±0,04	6,99±0,01	7,06±0,02	7,14±0,26 <sup>z</sup>
	1	6,87±0,02	6,67±0,04	6,69±0,10	6,69±0,03	6,78±0,02	6,74±0,09 <sup>y</sup>
	2	6,41±0,04	6,32±0,04	6,36±0,10	6,48±0,00	6,49±0,00	6,41±0,07 <sup>x</sup>
	3	5,85±0,02	5,54±0,18	5,54±0,14	5,41±0,16	5,46±0,03	5,56±0,18 <sup>y</sup>
	4	5,67±0,20	<b>5,62±0,04</b>	5,39±0,02	5,72±0,26	5,61±0,26	5,60±0,18 <sup>y</sup>
	5	6,05±0,15	5,92±0,21	5,72±0,26	6,05±0,07	6,10±0,00	5,97±0,16 <sup>w</sup>
	Mean±SD	6,39±0,68 <sup>y</sup>	6,20±0,61 <sup>z</sup>	6,12±0,63 <sup>z</sup>	6,22±0,58 <sup>z</sup>	6,25±0,61 <sup>z</sup>	
Total Asam Tertitrasi	0	0,05±0,01	0,13±0,00	0,18±0,00	0,15±0,03	0,13±0,00	0,13±0,04 <sup>x</sup>
	1	0,18±0,00	0,31±0,06	0,45±0,25	0,29±0,09	0,29±0,09	0,30±0,13 <sup>x</sup>
	2	0,27±0,00	0,31±0,00	0,58±0,19	0,40±0,12	0,49±0,00	0,41±0,14 <sup>x</sup>
	3	0,76±0,19	0,83±0,28	1,89±0,63	1,62±0,76	1,35±0,38	1,29±0,59 <sup>y</sup>
	4	1,30±0,19	1,30±0,57	1,95±0,41	0,81±0,38	1,35±0,63	1,34±0,51 <sup>yz</sup>
	5	1,21±0,44	1,55±0,28	2,16±0,12	1,21±0,38	1,91±0,03	1,61±0,45 <sup>z</sup>
	Mean±SD	0,63±0,54 <sup>x</sup>	0,74±0,59 <sup>ab</sup>	1,20±0,88 <sup>z</sup>	0,75±0,61 <sup>ab</sup>	0,92±0,71 <sup>y</sup>	

Keterangan:

S. eq= *Streptococcus equinus* strain TSGB1230

S. lu= *Streptococcus lutetiensis* strain TSGB1255

W. co= *Weissella confuse* strain qtfnm45

a,b, c superskrip pada baris yang sama berbeda secara signifikan (P<0,05)

x, y, z superskrip pada kolom yang sama berbeda secara signifikan (P<0,05)