

7. LAMPIRAN

Lampiran 1. *Scoresheet* Uji Ranking Rolade Ikan Lele Kacang Panjang

Uji Ranking Hedonik

Nama: _____ Tanggal: _____

Produk: Rolade

Atribut: Tekstur

Instruksi

Dihadapan anda terdapat 5 macam sampel rolade. Menggunakan ujung jari anda, tekan permukaan sampel secara berurutan dari kiri ke kanan. Setelah menekan seluruhnya, anda boleh mengulanginya sesering yang anda perlukan. Urutkan sampel dari yang paling anda sukai (ranking=1) hingga sampel yang kurang anda sukai (ranking=5).

kode sampel	ranking (jangan dobel)
...	...
...	...
...	...
...	...
...	...

Terima Kasih

Uji Ranking Hedonik

Nama: _____ Tanggal: _____

Produk: Rolade

Atribut: Aroma

Instruksi

Dihadapan anda terdapat 5 macam sampel rolade. Ciumlah aroma sampel secara berurutan dari kiri ke kanan. Setelah mencium seluruhnya, anda boleh mengulanginya sesering yang anda perlukan. Urutkan sampel dari yang paling anda sukai (ranking=1) hingga sampel yang kurang anda sukai (ranking=5).

kode sampel	ranking (jangan dobel)
...	...
...	...
...	...
...	...
...	...

Terima Kasih

Uji Ranking Hedonik

Nama: Tanggal:
Produk: Rolade
Atribut: Rasa

Instruksi

Dihadapan anda terdapat 5 macam sampel rolade. Cicipi sampel secara berurutan dari kiri ke kanan, rasakan masing – masing dan berkumurlah sebelum anda mencicipi sampel yang berbeda. Setelah mencicipi seluruhnya, anda boleh mengulanginya sesering yang anda perlukan. Urutkan sampel dari yang paling anda sukai (ranking=1) hingga sampel yang kurang anda sukai (ranking=5).

kode sampel	ranking (jangan dobel)
...	...
...	...
...	...
...	...
...	...

Terima Kasih

Uji Ranking Hedonik

Nama: Tanggal:
Produk: Rolade
Atribut: Warna

Instruksi

Pertama matikan lampu hijau dan nyalakan lampu netral. Dihadapan anda terdapat 5 macam sampel rolade. Amati warna sampel secara berurutan dari kiri ke kanan. Setelah diamati seluruhnya, anda boleh mengulanginya sesering yang anda perlukan. Urutkan sampel dari yang paling anda sukai (ranking=1) hingga sampel yang kurang anda sukai (ranking=5).

kode sampel	ranking (jangan dobel)
...	...
...	...
...	...
...	...
...	...

Terima Kasih

Uji Ranking Hedonik

Nama: _____ Tanggal: _____
 Produk: Rolade
 Atribut: Overall

Instruksi

Dihadapan anda terdapat 5 macam sampel rolade. Perhatikan keseluruhan parameter mutu seperti tekstur, aroma, rasa, dan warna pada masing-masing sampel secara berurutan dari kiri ke kanan. Urutkan sampel dari yang paling anda sukai (ranking=1) hingga sampel yang kurang anda sukai (ranking=5).

kode sampel	ranking (jangan dobel)
...	...
...	...
...	...
...	...
...	...

Terima Kasih

Lampiran 2. Worksheet Uji Ranking Rolade Ikan Lele Kacang Panjang

tanggal uji: _____
 jenis sampel: rolade

Identifikasi sampel

- rolade lele tanpa substitusi sayur kacang panjang
- rolade lele dengan substitusi sayur kacang panjang 5%
- rolade lele dengan substitusi sayur kacang panjang 10%
- rolade lele dengan substitusi sayur kacang panjang 15%
- rolade lele dengan substitusi sayur kacang panjang 20%

- kode**
- A
 - B
 - C
 - D
 - E

kode kombinasi penyajian

- | | |
|-------------------|--------------------|
| ABCDE = 1, 11, 21 | CEABD = 6, 16, 26 |
| ACDEB = 2, 12, 22 | DEABC = 7, 17, 27 |
| BCDEA = 3, 13, 23 | DABCE = 8, 18, 28 |
| BDEAC = 4, 14, 24 | EABCD = 9, 19, 29 |
| CDEAB = 5, 15, 25 | EBCDA = 10, 20, 30 |

Penyajian

panelis	kode sampel				
1, 11, 21	653	489	538	216	446
2, 12, 22	749	824	721	967	287
3, 13, 23	381	641	393	375	354
4, 14, 24	968	755	847	643	773
5, 15, 25	741	259	476	127	286
6, 16, 26	573	786	258	296	471
7, 17, 27	834	787	231	958	232
8, 18, 28	399	896	596	282	441
9, 19, 29	875	838	457	927	475
10, 20, 30	439	956	531	345	352

rekap kode sampel

A	B	C	D	E
653	489	538	216	446
749	287	824	721	967
354	381	641	393	375
643	986	773	755	847
127	286	741	259	476
258	296	573	471	786
231	958	232	834	787
896	596	282	399	441
838	457	927	475	875
352	956	531	345	439

Lampiran 3. Analisa Data

- **Karakteristik Fisik Rolade Lele Kacang Panjang**

- **Tekstur**

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hardness	.202	4	25	.935
Cohesivness	2.861	4	25	.044
Cewiness	3.777	4	25	.016

Tests of Normality

	Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hardness	0%	.129	6	.200*	.986	6	.977
	5%	.260	6	.200*	.827	6	.101
	10%	.264	6	.200*	.821	6	.091
	15%	.175	6	.200*	.979	6	.946
	20%	.226	6	.200*	.893	6	.336
Cohesiv ness	0%	.227	6	.200*	.901	6	.379
	5%	.263	6	.200*	.897	6	.356
	10%	.268	6	.200*	.857	6	.179
	15%	.224	6	.200*	.882	6	.280
	20%	.247	6	.200*	.896	6	.350
Cewiness	0%	.212	6	.200*	.941	6	.667
	5%	.314	6	.064	.742	6	.017
	10%	.297	6	.107	.801	6	.060
	15%	.180	6	.200*	.967	6	.870
	20%	.182	6	.200*	.960	6	.816

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

a. Lilliefors Significance Correction

Hardness

Duncan^a

Sampel	N	Subset for alpha = .05				
		1	2	3	4	5
20%	6	451.5626				
15%	6		549.9337			
10%	6			609.3535		
5%	6				622.3217	
0%	6					752.1105
Sig.		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.

Cohesivness

Duncan^a

Sampel	N	Subset for alpha = .05	
		1	2
0%	6	.1058	
10%	6	.1250	
5%	6	.1295	
15%	6	.1439	.1439
20%	6		.1769
Sig.		.099	.119

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Cewiness

Duncan^a

Sampel	N	Subset f or alpha = .05	
		1	2
0%	6	1.6654	
10%	6	2.0070	
15%	6	2.0602	
5%	6	2.9552	
20%	6		6.4854
Sig.		.067	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

➤ Warna

Tests of Normality

Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
L	0%	.195	6	.200*	.944	6	.688
	5%	.220	6	.200*	.956	6	.785
	10%	.265	6	.200*	.799	6	.058
	15%	.264	6	.200*	.841	6	.132
	20%	.190	6	.200*	.911	6	.446
a	0%	.304	6	.087	.811	6	.074
	5%	.348	6	.022	.743	6	.017
	10%	.263	6	.200*	.848	6	.150
	15%	.283	6	.146	.926	6	.548
	20%	.225	6	.200*	.922	6	.519
b	0%	.199	6	.200*	.925	6	.538
	5%	.133	6	.200*	.978	6	.944
	10%	.231	6	.200*	.871	6	.232
	15%	.238	6	.200*	.884	6	.288
	20%	.158	6	.200*	.973	6	.912

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df 1	df 2	Sig.
L	2.082	4	25	.113
a	6.609	4	25	.001
b	1.244	4	25	.318

Homogeneous Subsets

L

Duncan^a

Sampel	N	Subset f for alpha = .05	
		1	2
15%	6	60.8867	
20%	6	61.2433	
10%	6	61.6683	61.6683
5%	6	61.6700	61.6700
0%	6		63.2467
Sig.		.375	.069

Means for groups in homogeneous subsets are display ed.

a. Uses Harmonic Mean Sample Size = 6.000.

a

Duncan^a

Sampel	N	Subset f for alpha = .05	
		1	2
15%	6	-3.3117	
10%	6	-2.9833	-2.9833
20%	6	-2.7467	-2.7467
5%	6	-1.9717	-1.9717
0%	6		-1.4617
Sig.		.107	.068

Means for groups in homogeneous subsets are display ed.

a. Uses Harmonic Mean Sample Size = 6.000.

b

Duncan^a

Sampel	N	Subset f for alpha = .05	
		1	2
5%	6	11.2383	
10%	6	12.3683	12.3683
20%	6	13.3233	13.3233
0%	6	13.4383	13.4383
15%	6		14.1417
Sig.		.111	.197

Means for groups in homogeneous subsets are display ed.

a. Uses Harmonic Mean Sample Size = 6.000.

Tests of Normality

Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
E_ab 0%	.262	6	.200*	.823	6	.094
5%	.365	6	.012	.715	6	.009
10%	.234	6	.200*	.839	6	.127
15%	.340	6	.029	.750	6	.020
20%	.209	6	.200*	.850	6	.157

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

E_ab

Levene Statistic	df 1	df 2	Sig.
1.975	4	25	.129

E_ab

Duncan^a

Sampel	N	Subset for alpha = .05	
		1	2
10%	6	2.1776	
5%	6	2.3356	
15%	6	2.5976	
0%	6	2.7522	
20%	6		4.7220
Sig.		.562	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

- **Karakteristik Kimia Rolade Lele Kacang Panjang**

- **Kadar Air**

Tests of Normality

Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
kdrAir 0%	.305	6	.084	.819	6	.086
5%	.195	6	.200*	.908	6	.423
10%	.246	6	.200*	.839	6	.128
15%	.193	6	.200*	.941	6	.665
20%	.295	6	.111	.836	6	.121

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

kdrAir

Levene Statistic	df 1	df 2	Sig.
3.508	4	25	.021

Homogeneous Subsets

kdrAir

Duncan^a

Sampel	N	Subset for alpha = .05	
		1	2
0%	6	65.5286	
5%	6	65.9662	
15%	6		67.1076
10%	6		67.2481
20%	6		67.4167
Sig.		.411	.583

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

➤ Lemak

Tests of Normality

Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Lemak 0%	.257	6	.200*	.855	6	.172
5%	.200	6	.200*	.919	6	.499
10%	.247	6	.200*	.929	6	.571
15%	.197	6	.200*	.923	6	.527
20%	.191	6	.200*	.920	6	.506

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

a. Lilliefors Significance Correction

Post Hoc Tests

Homogeneous Subsets

Lemak

Duncan^a

Sampel	N	Subset for alpha = .05
		1
15%	6	7.1725
20%	6	7.3181
10%	6	7.3235
0%	6	7.4868
5%	6	7.8814
Sig.		.555

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

➤ **Protein**

Tests of Normality

	Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
protein	0%	.252	6	.200*	.832	6	.113
	5%	.236	6	.200*	.882	6	.280
	10%	.301	6	.096	.793	6	.051
	15%	.155	6	.200*	.965	6	.860
	20%	.169	6	.200*	.942	6	.679

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

protein

Levene Statistic	df1	df2	Sig.
3.595	4	25	.019

Post Hoc Tests

Homogeneous Subsets

protein

Duncan^a

Sampel	N	Subset for alpha = .05		
		1	2	3
20%	6	13.5376		
15%	6		14.9158	
10%	6		14.9301	
5%	6		15.3273	
0%	6			16.4080
Sig.		1.000	.439	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

➤ **Vitamin B₁**

Tests of Normality

	Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Thiamine	0%	.305	6	.086	.791	6	.048
	5%	.270	6	.196	.857	6	.178
	10	.359	6	.015	.685	6	.004
	15%	.223	6	.200*	.904	6	.398
	20%	.236	6	.200*	.830	6	.108

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Thiamine

Levene Statistic	df 1	df 2	Sig.
1.054	4	25	.400

Post Hoc Tests

Homogeneous Subsets

Thiamine

Duncan^a

Sampel	N	Subset for alpha = .05			
		1	2	3	4
0%	6	63.6428			
10	6	66.0927	66.0927		
15%	6		67.3119	67.3119	
20%	6			69.1884	
5%	6				74.2389
Sig.		.071	.358	.162	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

➤ **Serat Pangan**

Tests of Normality

Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Serat_Pngan 0%	.202	5	.200*	.965	5	.840
5%	.286	5	.200*	.810	5	.098
10%	.167	5	.200*	.958	5	.795
15%	.271	5	.200*	.913	5	.489
20%	.143	5	.200*	.991	5	.984

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

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Serat_Pngan

Levene Statistic	df 1	df 2	Sig.
2.321	4	20	.092

Post Hoc Tests

Homogeneous Subsets

Serat_Pngan

Duncan^a

Sampel	N	Subset for alpha = .05	
		1	2
5%	5	17.1858	
0%	5	17.1950	
10%	5	17.5283	
15%	5	17.9312	
20%	5		21.2715
Sig.		.566	1.000

Means for groups in homogeneous subsets are display ed.

a. Uses Harmonic Mean Sample Size = 5.000.

- **Sensori Rolade Lele Kacang Panjang**

NPar Tests

Kruskal-Wallis Test

Ranks

	Sampel	N	Mean Rank
Tekstur	0%	30	68.88
	5%	30	74.88
	10%	30	77.90
	15%	30	84.88
	20%	30	70.95
	Total	150	
Aroma	0%	30	84.65
	5%	30	54.80
	10%	30	82.67
	15%	30	68.77
	20%	30	86.62
	Total	150	
Rasa	0%	30	62.00
	5%	30	72.37
	10%	30	79.20
	15%	30	83.40
	20%	30	80.53
	Total	150	
Warna	0%	30	71.50
	5%	30	75.50
	10%	30	78.50
	15%	30	75.50
	20%	30	76.50
	Total	150	
Overall	0%	30	76.23
	5%	30	60.25
	10%	30	84.32
	15%	30	80.32
	20%	30	76.38
	Total	150	

Test Statistics^{a,b}

	Tekstur	Aroma	Rasa	Warna	Overall
Chi-Square	2.627	12.127	4.860	.430	5.543
df	4	4	4	4	4
Asymp. Sig.	.622	.016	.302	.980	.236

a. Kruskal Wallis Test

b. Grouping Variable: Sampel

NPar Tests**Mann-Whitney Test 1,2****Ranks**

	Sampel	N	Mean Rank	Sum of Ranks
Tekstur	0%	30	29.40	882.00
	5%	30	31.60	948.00
	Total	60		
Aroma	0%	30	36.48	1094.50
	5%	30	24.52	735.50
	Total	60		
Rasa	0%	30	28.40	852.00
	5%	30	32.60	978.00
	Total	60		
Warna	0%	30	29.63	889.00
	5%	30	31.37	941.00
	Total	60		
Overall	0%	30	33.95	1018.50
	5%	30	27.05	811.50
	Total	60		

Test Statistics^a

	Tekstur	Aroma	Rasa	Warna	Overall
Mann-Whitney U	417.000	270.500	387.000	424.000	346.500
Wilcoxon W	882.000	735.500	852.000	889.000	811.500
Z	-.499	-2.712	-.953	-.393	-1.571
Asymp. Sig. (2-tailed)	.618	.007	.340	.694	.116

a. Grouping Variable: Sampel

NPar Tests

Mann-Whitney Test 4,5

Ranks

	Sampel	N	Mean Rank	Sum of Ranks
Tekstur	15%	30	33.32	999.50
	20%	30	27.68	830.50
	Total	60		
Aroma	15%	30	26.82	804.50
	20%	30	34.18	1025.50
	Total	60		
Rasa	15%	30	31.15	934.50
	20%	30	29.85	895.50
	Total	60		
Warna	15%	30	30.35	910.50
	20%	30	30.65	919.50
	Total	60		
Overall	15%	30	31.33	940.00
	20%	30	29.67	890.00
	Total	60		

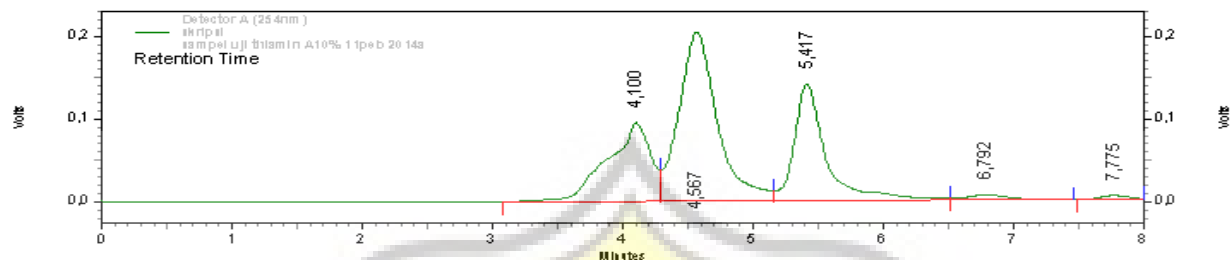
Test Statistics^a

	Tekstur	Aroma	Rasa	Warna	Overall
Mann-Whitney U	365.500	339.500	430.500	445.500	425.000
Wilcoxon W	830.500	804.500	895.500	910.500	890.000
Z	-1.276	-1.668	-.296	-.068	-.379
Asy mp. Sig. (2-tailed)	.202	.095	.768	.946	.705

a. Grouping Variable: Sampel

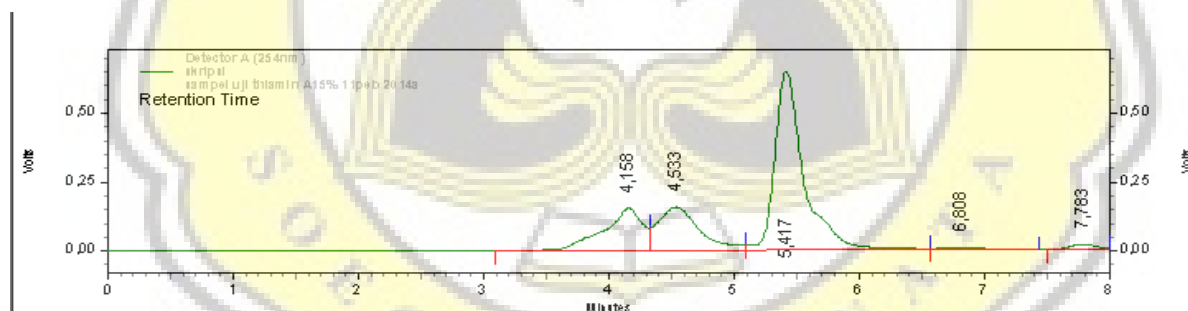
Lampiran 4. Hasil Analisa Vitamin B₁ dengan HPLC

- Sampel rolade lele dengan substitusi bubuk polong muda kacang panjang 10%



Detector A (254nm)					
Pk#	Retention Time	Area	Area %	Height	Height %
1	4,100	2227656	24,507	95653	21,107
2	4,567	4219221	46,417	204864	45,206
3	5,417	2423505	26,661	141552	31,236
4	6,792	155353	1,709	6554	1,446
5	7,775	64180	0,706	4551	1,004
Totals		9089915	100,000	453174	100,000

- Sampel rolade lele dengan substitusi bubuk polong muda kacang panjang 15%



Detector A (254nm)					
Pk#	Retention Time	Area	Area %	Height	Height %
1	4,158	3395225	18,805	153972	15,597
2	4,533	3653326	20,235	158029	16,008
3	5,417	10543934	58,399	648618	65,702
4	6,808	229877	1,273	9851	0,998
5	7,783	232477	1,288	16748	1,696
Totals		18054839	100,000	987218	100,000