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Lampiran

Lampiran 1. Proses Pembuatan Bubuk Kaldu Udang



Lampiran 2. Uji Organoleptik



Lampiran 3. Uji Kadar Abu dan Kadar Air

Uji Kadar Abu



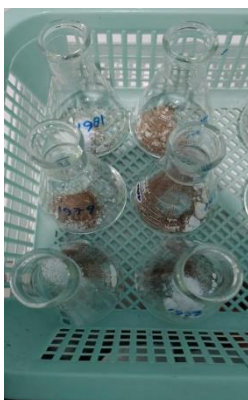
Uji Kadar Air



Lampiran 4. Uji Kadar Garam



Lampiran 5. Uji Kadar Protein



Lampiran 6. Uji Kadar Asam Glutamat



Lampiran 7. Hasil Statistik Hedonik

One way

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
WARNA	kontrol	40	3.68	.917	.145	3.38	3.97	2	5
	M1P1	40	3.80	.823	.130	3.54	4.06	2	5
	M1P2	40	3.72	.640	.101	3.52	3.93	3	5
	M2P1	40	3.92	.764	.121	3.68	4.17	2	5
	M2P2	40	3.88	.648	.102	3.67	4.08	3	5
	M3P1	40	4.35	.580	.092	4.16	4.54	3	5
	M3P2	40	4.00	.751	.119	3.76	4.24	2	5
	Total	280	3.91	.761	.045	3.82	4.00	2	5
AROMA	kontrol	40	3.70	.723	.114	3.47	3.93	2	5
	M1P1	40	3.60	.841	.133	3.33	3.87	2	5
	M1P2	40	3.38	.740	.117	3.14	3.61	2	5
	M2P1	40	3.65	.864	.137	3.37	3.93	2	5
	M2P2	40	3.45	.815	.129	3.19	3.71	2	5
	M3P1	40	3.70	.853	.135	3.43	3.97	1	5
	M3P2	40	4.20	.687	.109	3.98	4.42	3	5
	Total	280	3.67	.821	.049	3.57	3.76	1	5
RASA	kontrol	40	3.58	.747	.118	3.34	3.81	2	5
	M1P1	40	3.52	.716	.113	3.30	3.75	2	5
	M1P2	40	3.42	.844	.133	3.16	3.69	2	5
	M2P1	40	3.50	.847	.134	3.23	3.77	2	5
	M2P2	40	3.35	.622	.098	3.15	3.55	2	4
	M3P1	40	3.82	.781	.123	3.58	4.07	2	5
	M3P2	40	4.15	.736	.116	3.91	4.39	2	5
	Total	280	3.62	.794	.047	3.53	3.71	2	5
TEKSTUR	kontrol	40	3.62	.540	.085	3.45	3.80	3	5
	M1P1	40	3.75	.630	.100	3.55	3.95	2	5
	M1P2	40	3.70	.564	.089	3.52	3.88	3	5
	M2P1	40	3.82	.675	.107	3.61	4.04	3	5
	M2P2	40	3.90	.591	.093	3.71	4.09	3	5
	M3P1	40	4.10	.632	.100	3.90	4.30	3	5
	M3P2	40	4.28	.599	.095	4.08	4.47	3	5
	Total	280	3.88	.637	.038	3.81	3.96	2	5

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
WARNA	Between Groups	12.186	6	2.031	3.711	.001
	Within Groups	149.400	273	.547		
	Total	161.586	279			
AROMA	Between Groups	16.936	6	2.823	4.502	.000
	Within Groups	171.175	273	.627		
	Total	188.111	279			
RASA	Between Groups	18.371	6	3.062	5.307	.000
	Within Groups	157.500	273	.577		
	Total	175.871	279			
TEKSTUR	Between Groups	12.886	6	2.148	5.850	.000
	Within Groups	100.225	273	.367		
	Total	113.111	279			

Post Hoc Tests Homogeneous Subsets

WARNA

Duncan

sampel	N	Subset for alpha = 0.05	
		1	2
kontrol	40	3.68	
M1P2	40	3.72	
M1P1	40	3.80	
M2P2	40	3.88	
M2P1	40	3.92	
M3P2	40	4.00	
M3P1	40		4.35
Sig.		.087	1.000

Means for groups in homogeneous subsets are displayed.

AROMA

Duncan

sampel	N	Subset for alpha = 0.05	
		1	2
M1P2	40	3.38	
M2P2	40	3.45	
M1P1	40	3.60	
M2P1	40	3.65	
kontrol	40	3.70	
M3P1	40	3.70	
M3P2	40		4.20
Sig.		.111	1.000

Means for groups in homogeneous subsets are displayed.

RASA

Duncan

sampel	N	Subset for alpha = 0.05		
		1	2	3
M2P2	40	3.35		
M1P2	40	3.42		
M2P1	40	3.50	3.50	
M1P1	40	3.52	3.52	
kontrol	40	3.58	3.58	
M3P1	40		3.82	3.82
M3P2	40			4.15
Sig.		.246	.081	.057

Means for groups in homogeneous subsets are displayed.

TEKSTUR

Duncan

sampel	N	Subset for alpha = 0.05		
		1	2	3
kontrol	40	3.62		
M1P2	40	3.70		
M1P1	40	3.75		
M2P1	40	3.82	3.82	
M2P2	40	3.90	3.90	
M3P1	40		4.10	4.10
M3P2	40			4.28
Sig.		.071	.055	.198

Means for groups in homogeneous subsets are displayed.

Lampiran 8. Data Statistik Rendemen

Descriptives										
Rendemen										
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance	
					Lower Bound	Upper Bound				
MOP0	3	39.433	.21127	.12197	34.185	44.681	3.72	4.14		
M1P1	3	45.433	.16503	.09528	41.334	49.533	4.38	4.71		
M1P2	3	49.800	.14000	.08083	46.322	53.278	4.84	5.12		
M2P1	3	58.233	.14503	.08373	54.631	61.836	5.68	5.97		
M2P2	3	71.367	.29501	.17033	64.038	78.695	6.84	7.43		
M3P1	3	77.733	.19009	.10975	73.011	82.455	7.58	7.96		
M3P2	3	93.300	.26230	.15144	86.784	99.816	9.09	9.61		
Total	21	62.186	185.004	.40371	53.764	70.607	3.72	9.61		
Model	Fixed Effects		.20856	.04551	61.210	63.162				
	Random Effects			.73379	44.231	80.141			375.460	

ANOVA

Rendemen

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	67.844	6	11.307	259.966	.000
Within Groups	.609	14	.043		
Total	68.453	20			

Rendemen

Duncan

Perlakuan	N	Subset for alpha = 0.05						
		1	2	3	4	5	6	7
MOP0	3	39.433						
M1P1	3		45.433					
M1P2	3			49.800				
M2P1	3				58.233			
M2P2	3					71.367		
M3P1	3						77.733	
M3P2	3							93.300
Sig.		1.000	1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Uji Univariet

Descriptive Statistics

Dependent Variable: Rendemen

dekstrin	putih telur	Mean	Std. Deviation	N
0	0	39.433	.21127	3
	Total	39.433	.21127	3
	20%	45.433	.16503	3
1%	25%	49.800	.14000	3
	Total	47.617	.27557	6
	20%	58.233	.14503	3
3%	25%	71.367	.29501	3
	Total	64.800	.74879	6
	20%	77.733	.19009	3
5%	25%	93.300	.26230	3
	Total	85.517	.87689	6
Total	0	39.433	.21127	3
	20%	60.467	141.609	9
	25%	71.489	189.523	9
	Total	62.186	185.004	21

Tests of Between-Subjects Effects

Dependent

Variable: Rendemen

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	67.844 ^a	6	11.307	259.966	.000
Intercept	676.115	1	676.115	1,55E+07	.000
Dekstrin	43.217	2	21.609	496.803	.000
Putihtelur	5.467	1	5.467	125.692	.000
Dekstrin * Putihtelur	1.041	2	.521	11.968	.001
Error	.609	14	.043		
Total	880.536	21			
Corrected Total	68.453	20			

a. R Squared = ,991 (Adjusted R Squared = ,987)

Lampiran 9. Data Uji Warna

Descriptives										
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance	
					Lower Bound	Upper Bound				
L	M0P0	3	640.000	.87430	.50478	618.281	661.719	63.08	64.82	
	M3P1	3	733.967	.46501	.26847	722.415	745.518	72.93	73.86	
	M3P2	3	677.200	.37242	.21502	667.948	686.452	67.30	68.01	
	Total	9	683.722	.413217	.137739	651.960	715.485	63.08	73.86	
	Model			.61083	.20361	678.740	688.704			
a	M0P0	3	82.333	.59752	.34498	67.490	97.177	7.67	8.86	
	M3P1	3	81.300	.16523	.09539	77.196	85.404	7.96	8.29	
	M3P2	3	92.600	.29309	.16921	85.319	99.881	8.93	9.49	
	Total	9	85.411	.64052	.21351	80.488	90.335	7.67	9.49	
	Model			.39591	.13197	82.182	88.640			
b	M0P0	3	250.667	.69981	.40404	233.282	268.051	24.28	25.62	
	M3P1	3	249.867	.42724	.24667	239.253	260.480	24.74	25.48	
	M3P2	3	236.733	.11372	.06566	233.908	239.558	23.58	23.80	
	Total	9	245.756	.79396	.26465	239.653	251.858	23.58	25.62	
	Model			.47791	.15930	241.858	249.654			

L

Duncan

sampel	N	Subset for alpha = 0.05		
		1	2	3
M0P0	3	640.000		
M3P2	3		677.200	
M3P1	3			733.967
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

b

Duncan

sampel	N	Subset for alpha = 0.05	
		1	2
M3P2	3	236.733	
M3P1	3		249.867
M0P0	3		250.667
Sig.		1.000	.844

Means for groups in homogeneous subsets are displayed.

a

Duncan

sampel	N	Subset for alpha = 0.05	
		1	2
M3P1	3	81.300	
M0P0	3	82.333	
M3P2	3		92.600
Sig.		.760	1.000

Means for groups in homogeneous subsets are displayed.

Uji T

L*

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	M0P0 (kontrol) - M3P1	-939.667	133.762	.77228	-1.271.950	-607.383	-12.167	2	.007
Pair 2	M0P0 (kontrol) - M3P2	-372.000	115.676	.66786	-659.356	-.84644	-5.570	2	.031
Pair 3	M3P1 - M3P2	567.667	.31262	.18049	490.007	645.327	31.451	2	.001

a*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	M0P0 (Kontrol) - M3P1	.10333	.76265	.44032	-179.119	199.786	.235	2	.836
Pair 2	M0P0 (Kontrol) - M3P2	-102.667	.84890	.49011	-313.545	108.212	-2.095	2	.171
Pair 3	M3P1 - M3P2	-113.000	.19698	.11372	-161.932	-.64068	-9.936	2	.010

b*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	M0P0 (Kontrol) - M3P1	.08000	112.000	.64663	-270.223	286.223	.124	2	.913
Pair 2	M0P0 (Kontrol) - M3P2	139.333	.60575	.34973	-.11143	289.810	3.984	2	.058
Pair 3	M3P1 - M3P2	131.333	.51433	.29695	.03567	259.100	4.423	2	.048

Lampiran 10. Data Statistik Fisikokimia

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
kadar air	Between Groups	1.794	2	.897	173.654	.000
	Within Groups	.031	6	.005		
	Total	1.825	8			
kadar abu	Between Groups	2.055	2	1.028	34.677	.001
	Within Groups	.178	6	.030		
	Total	2.233	8			
kadar protein	Between Groups	70.098	2	35.049	326.272	.000
	Within Groups	.645	6	.107		
	Total	70.742	8			
kadar nacl	Between Groups	95.436	2	47.718	362.508	.000
	Within Groups	.790	6	.132		
	Total	96.226	8			

Post Hoc Tests Homogeneous Subsets

kadar air

Duncan

perlakuan	N	Subset for alpha = 0.05		
		1	2	3
M3P2	3	72.667		
M3P1	3		77.333	
M0P0	3			83.567
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

kadar abu

Duncan

perlakuan	N	Subset for alpha = 0.05	
		1	2
M0P0	3	24.033	
M3P1	3		33.633
M3P2	3		34.633
Sig.		1.000	.504

Means for groups in homogeneous subsets are displayed.

kadar protein

Duncan

perlakuan	N	Subset for alpha = 0.05		
		1	2	3
M0P0	3	255.433		
M3P1	3		303.300	
M3P2	3			321.633
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

kadar nacl

Duncan

perlakuan	N	Subset for alpha = 0.05	
		1	2
M3P1	3	122.133	
M3P2	3	126.667	
M0P0	3		193.367
Sig.		.177	1.000

Means for groups in homogeneous subsets are displayed.

Uji T

Kadar Air

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	M0P0 (Kontrol) - M3P1	.62333	.13317	.07688	.29253	.95414	8.107	2	.015
Pair 2	M0P0 (Kontrol) - M3P2	109.000	.12490	.07211	.77973	140.027	15.116	2	.004
Pair 3	M3P1 - M3P2	.46667	.07024	.04055	.29219	.64115	11.508	2	.007

Kadar Abu

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	M0P0 (Kontrol) - M3P1	-.96000	.23388	.13503	-154.099	-.37901	-7.109	2	.019
Pair 2	M0P0 (Kontrol) - M3P2	-106.000	.30050	.17349	-180.648	-.31352	-6.110	2	.026
Pair 3	M3P1 - M3P2	-.10000	.22271	.12858	-.65324	.45324	-.778	2	.518

Kadar Protein

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	M0P0 (Kontrol) - M3P1	-478.667	.57744	.33338	-622.110	-335.223	-14.358	2	.005
Pair 2	M0P0 (Kontrol) - M3P2	-662.000	.59925	.34598	-810.862	-513.138	-19.134	2	.003
Pair 3	M3P1 - M3P2	-183.333	.05859	.03383	-197.889	-168.778	-54.193	2	.000

Kadar NaCl

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	M0P0 (Kontrol) - M3P1	712.333	.46801	.27021	596.073	828.593	26.363	2	.001
Pair 2	M0P0 (Kontrol) - M3P2	667.000	.13115	.07572	634.421	699.579	88.089	2	.000
Pair 3	M3P1 - M3P2	-.45333	.58603	.33835	-190.912	100.245	-1.340	2	.312

Kadar Glutamat

Descriptives

kadar asam glutamat

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
M0P0	2	33.2450	.38891	.27500	29.7508	36.7392	32.97	33.52
M3P2	2	17.1800	1.03238	.73000	7.9045	26.4555	16.45	17.91
Total	4	25.2125	9.29698	4.64849	10.4189	40.0061	16.45	33.52

ANOVA

kadar asam glutamat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	190.407	1	190.407	4.803	.094
Within Groups	158.581	4	39.645		
Total	348.988	5			

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	MOP0(KO NTROL) - M3P1	1,61E+06	.64347	.45500	1.028.368	2.184.632	35.308	1	.018

CURRICULUM VITAE

A. Data Pribadi

1. Nama : Nani Mariati Thamrin
2. Tempat, tanggal lahir : Takkalasi, 23 Agustus 1999
3. Alamat : Lahontohe, Kec. Tongkuno,
Kab. Muna, Provinsi Sulawesi
Tenggara
4. Kewarganegaraan : Warga Negara Indonesia



B. Riwayat Pendidikan

1. Tamat SD tahun 2011 di MIN 1 MUNA
2. Tamat SMP tahun 2014 di SMP Negeri 1 Tongkuno
3. Tamat SLTA tahun 2017 di SMA Negeri 1 Tongkuno
4. Sarjana (S1) tahun 2021 di Universitas Halu Oleo

C. Karya Ilmiah yang Telah Dipublikasikan

1. Thamrin, N.M., Ilimi, R.M., & Hasizah, A. (2024). Potential and Trends Processing of Shrimp Industry by-Product in Food: A Review. *BIO Web of Conferences*, 96, 01008. <https://doi.org/10.1051/bioconf/20249601008>
2. Ilimi, R.M., Thamrin, N.M., & Hasizah, A. (2024). Flavour Characteristic and Amino Acid Contents of Fish Sauce Produced from Various Raw Materials: Mini Review. *BIO Web of Conferences*, 96, 01007. <https://doi.org/10.1051/bioconf/20249601007>