

6. DAFTAR PUSTAKA

- Ananingsih, V.K., and Zhou, W. (2011). Effects of green tea extract on large-deformation rheological properties of steamed bread dough and some quality attributes of steamed bread. In *11th International Congress on Engineering and Food*, (pp. 647-648). Athens, Greece.
- Apriyantono, A., D. Fardiaz, N.L. Puspitasari, Sedarnawati, and S. Budiyanto. (1989). Analisis Pangan. PAU Pangan dan Gizi. IPB Press.
- Aziah, N.A.A., Ho, L.H., Noor Shazliana, A.A., and Rajeev, B. (2012). Quality Evaluation of Steamed Wheat Bread Substituted with Green Banana Flour. *International Food Research Journal* 10 (3): 869-876 (2012).
- Bennion, M and O. Hughes. (1975). *Introductory Food*, 6th Edition. Collier Macmillan Publisher. London.
- Bahorun, T., MA Soobrattee, V. Luximon-Ramma, and OI Aruoma. (2006). Free Radicals and Antioxidants in Cardiovascular Health and Disease. *Internet Journal of Medical Update*, Vol. 1, No. 2, Jul-Dec 2006. London, UK.
- Balestra, Federica. (2009). Empirical and fundamental mechanical tests in the evaluation of dough and bread rheological properties. Bologna, Italia.
- Cai, Y., Sun, M., and Corke, H. (2005). HPLC Characterization of Betalains from Plants in the Amaranthaceae. *Journal of Chromatographic Science*, Vol. 43, October 2005.
- Canadanovic-Brunet, J.M., Savatovic, S.S, Cetkovic, G.S., Vulic, J.J., Djilas, S.M., Markov, S.L., and Cvetkovic. D.D. (2011). Antioxidant and Antimicrobial Activities of Beet Root Pomace Extracts. Vol. 29, 2011. No. 6: 575-585. Serbia.
- Cauvain, S.P and Young, L.S. (2001). *Baking Problems Solved*. Woodhead Publishing Limited and CRC Press LLC. England and USA.
- Cauvain, S.P. and Young, L.S. (2006). *Baked Products: Science, Technology and Practice*. Blackwell Publishing Ltd. UK.
- DeMan, J. M. (1985). *Principles of Food Chemistry*. The AVI Publishing Company Inc., Westport, Connecticut..

- Hou, G. G. and Popper, L. (2007). Chinese Seamed Bread. In Popper, L., Schäfer, S. and Freund, W. (Eds.). *Future of Flour-A Compendium of Flour Improvement*. Page 309-318. Clenze: Verlag Agrimedia GmbH.
- Joosten, M. and Peeters, M. (2010). *Yeast and Fermentation: The Optimal pH Level*. Philips van Horne sg. Weert, The Netherlands, June 2nd 2010.
- Khuluq, A.D., Simon, B.W., dan Erni, S.M. (2007). Ekstraksi dan Stabilitas Betasianin Daun Darah (*Alternanthera dentata*) (Kajian Perbandingan Pelarut Air:Etanol dan Suhu Ekstraksi). *Jurnal Teknologi Pertanian*, Vol. 8 No.3 (Desember 2007) 172-181.
- Langseth, L. (1995). *Oxidants, Antioxidant, and Disease Prevention*. International Life Sciences Institute. Belgium.
- Lebesi, Dimitra M. and Constantina Tzia. (2009). Effect of the Addition of Different Dietary Fiber and Edible Cereal Bran Source on the Baking and Sensory Characteristic of cupcakes. *Journal Food Bioprocess Technology*.
- Lombard, G.E., Weinert, A.G.I., Minnaar, A., and Taylor, J.R.N. (2000). Preservation of South African Steamed Bread Using Hurdle Technology. *Lebensm.-Wiss. u.-Technol.*, 33, 138-143 (2000).
- Maleki, M., R. C. Hosney, and P. J. Mattern. (1980). Effect of Loaf Volume, Moisture Content, and Protein Quality on the Softness and Staling Rate of Bread. *Cereal Chem.* 57(2):138-140.
- Mastuti, Retno. (2010). *Pigmen Betalain pada Famili Amaranthaceae*. Malang, Indonesia.
- Matz, S.A. (1992). *Bakery, Technology and Engineering*, 3rd ed. Van Nostrand Reinhold. Texas.
- Oguntibeju, O.O., A.J. Esterhuysen, and E.J. Truter. (2009). Cardiovascular Disease and the Potential Protective Role of Antioxidant. *African Journal of Biotechnology* Vol. 8 (14), pp. 3107-3117, 20 July, 2009. South Africa.
- Pomeranz, Y, Huang, M., and Rubenthaler, G.L. (1991). Steamed Bread III. Role of Lipids. *Cereal Chem.* 68(4): 353-356.
- Reid, M., S. Jack., L. Paul and R.E. Young. 1980. Effects of pH and Ethephon on Betasianin Leakage from Beet Root Discs. *Plant Physiol* 66: 1015-1016.

- Rubenthaler, G.L., Huang, M.L., Pomeranz, Y. (1990). Steamed Bread. I. Chinese Steamed Bread Formulation and Interactions. *Cereal Chem.* 67(5): 471-475.
- Ruth Patrick Science Education Center (2009). *Balanced Equations, Reactants, and Products.*
- Sozer, N., Dalgic, A.C., and Kaya, A. (2007). Thermal, Textural, and Cooking Properties of Spaghetti Enriched With Resistant Starch. *Journal of Food Engineering* 81 (2007) 476-484.
- Sturzoiu, A., Stroescu, M., Stoica, A., and Dobre, T. (2011). Betanine Extraction from *Beta vulgaris* – Experimental Research and Statistical Modeling. *U.P.B. Sci. Bull., Series B*, Vol. 73, Iss. 1., 2011. ISSN 1454-2331.
- Subagio, A., W. S. Windrati, dan Y. Witono. (2003). Pengaruh Penambahan Isolat Protein Koro Pedang (*Canavalia ensiformis L.*) terhadap Karakteristik Cake. *Jurnal Teknologi dan Industri Pangan*. Volume XIV (2): 136-143.
- Wang, R., Zhou, W., and Isabelle, M. (2006). Comparison study of the effect of green tea extract (GTE) on the quality of bread by instrumental analysis and sensory evaluation. *Food Research International* (2006).
- Widhiana, Eries. (2000). Ekstraksi Bit (*Beta vulgaris l. var. rubra l.*) sebagai Alternatif Pewarna Alami Pangan. Bogor, Indonesia.

7. LAMPIRAN

- Lampiran 1. Tingkat Kekerasan (*Hardness*)

		Tests of Normality ^a					
		Kolmogorov-Smirnov			Shapiro-Wilk		
Kombinasi_1		Statistic	df	Sig.	Statistic	df	Sig.
Hardness	Kontrol,0%,0	.242	6	.200*	.880	6	.271
	Kontrol,0%,2	.201	6	.200*	.917	6	.486
	Kontrol,0%,5	.271	6	.193	.863	6	.201
	Kontrol,0%,10	.262	6	.200*	.821	6	.090
	Kontrol,0%,15	.246	6	.200*	.849	6	.155
	Kontrol,0%,20	.211	6	.200*	.891	6	.322
	Kontrol,0.5%,0	.221	6	.200*	.899	6	.369
	Kontrol,0.5%,2	.201	6	.200*	.903	6	.394
	Kontrol,0.5%,5	.234	6	.200*	.899	6	.369
	Kontrol,0.5%,10	.234	6	.200*	.925	6	.542
	Kontrol,0.5%,15	.161	6	.200*	.942	6	.674
	Kontrol,0.5%,20	.263	6	.200*	.801	6	.060
	Kontrol,1%,0	.171	6	.200*	.950	6	.740
	Kontrol,1%,2	.159	6	.200*	.979	6	.945
	Kontrol,1%,5	.221	6	.200*	.911	6	.443
	Kontrol,1%,10	.248	6	.200*	.901	6	.377
	Kontrol,1%,15	.211	5	.200*	.907	5	.448
	Kontrol,1%,20	.292	7	.072	.827	7	.075
	1:1,0%,0	.215	6	.200*	.917	6	.485
	1:1,0%,2	.165	6	.200*	.921	6	.509
	1:1,0%,5	.237	6	.200*	.914	6	.465
	1:1,0%,10	.151	6	.200*	.949	6	.730
	1:1,0%,15	.251	6	.200*	.905	6	.406
	1:1,0%,20	.220	6	.200*	.907	6	.420
	1:1,0.5%,0	.155	6	.200*	.969	6	.889
	1:1,0.5%,2	.137	6	.200*	.985	6	.974
	1:1,0.5%,5	.202	6	.200*	.860	6	.191
	1:1,0.5%,10	.158	6	.200*	.966	6	.861
	1:1,0.5%,15	.222	6	.200*	.858	6	.182
	1:1,0.5%,20	.419	6	.001	.647	6	.002
	1:1,1%,0	.275	6	.176	.869	6	.221
	1:1,1%,2	.272	6	.190	.893	6	.335
	1:1,1%,5	.219	6	.200*	.848	6	.151
	1:1,1%,10	.172	6	.200*	.932	6	.598
	1:1,1%,15	.268	6	.200*	.812	6	.075
	1:1,1%,20	.235	6	.200*	.950	6	.738
	1:2,0%,0	.256	6	.200*	.913	6	.457
	1:2,0%,2	.217	6	.200*	.929	6	.575
	1:2,0%,5	.193	6	.200*	.911	6	.444
	1:2,0%,10	.223	6	.200*	.925	6	.545
	1:2,0%,15	.297	6	.107	.819	6	.086
	1:2,0%,20	.161	6	.200*	.948	6	.724
	1:2,0.5%,0	.179	6	.200*	.950	6	.737
	1:2,0.5%,2	.301	6	.096	.765	6	.028
	1:2,0.5%,5	.244	6	.200*	.887	6	.303
	1:2,0.5%,10	.135	6	.200*	.986	6	.977
	1:2,0.5%,15	.187	6	.200*	.927	6	.554
	1:2,0.5%,20	.264	6	.200*	.840	6	.131
	1:2,1%,0	.326	6	.045	.710	6	.008
	1:2,1%,2	.280	6	.156	.873	6	.240
	1:2,1%,5	.287	6	.134	.832	6	.112
	1:2,1%,10	.261	6	.200*	.911	6	.443
	1:2,1%,15	.216	6	.200*	.928	6	.564
	1:2,1%,20	.228	6	.200*	.949	6	.735
	1:3,0%,0	.167	6	.200*	.975	6	.923
	1:3,0%,2	.195	6	.200*	.877	6	.255
	1:3,0%,5	.286	6	.137	.863	6	.199
	1:3,0%,10	.179	6	.200*	.913	6	.458
	1:3,0%,15	.263	6	.200*	.909	6	.433
	1:3,0%,20	.210	6	.200*	.938	6	.643
	1:3,0.5%,0	.200	6	.200*	.906	6	.411
	1:3,0.5%,2	.154	6	.200*	.970	6	.895
	1:3,0.5%,5	.214	6	.200*	.929	6	.575
	1:3,0.5%,10	.311	6	.071	.839	6	.129
	1:3,0.5%,15	.162	6	.200*	.984	6	.970
	1:3,0.5%,20	.248	6	.200*	.887	6	.302
	1:3,1%,0	.145	6	.200*	.977	6	.937
	1:3,1%,2	.339	6	.030	.833	6	.115
	1:3,1%,5	.196	6	.200*	.884	6	.289
	1:3,1%,10	.205	6	.200*	.933	6	.604
	1:3,1%,15	.227	6	.200*	.895	6	.345
	1:3,1%,20	.239	6	.200*	.907	6	.415

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: Hardness

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	94018690.7 ^a	71	1324206.911	198.555	.000
Intercept	399292884	1	399292883.9	59870.875	.000
Bit	3035559.451	3	1011853.150	151.720	.000
Baking_powder	1958207.407	2	979103.704	146.809	.000
Steaming	80987208.8	5	16197441.76	2428.681	.000
Bit * Baking_powder	3449395.052	6	574899.175	86.202	.000
Bit * Steaming	1527511.469	15	101834.098	15.269	.000
Baking_powder * Steaming	1236244.133	10	123624.413	18.537	.000
Bit * Baking_powder * Steaming	1824564.355	30	60818.812	9.119	.000
Error	2400924.282	360	6669.234		
Total	495712499	432			
Corrected Total	96419615.0	431			

a. R Squared = .975 (Adjusted R Squared = .970)

Post Hoc ANOVA Tiga Arah

Hardness

Duncan^{a,b}

Bit	N	Subset			
		1	2	3	4
1:3	108	858.38336			
Kontrol	108		902.89305		
1:1	108			1019.501	
1:2	108				1064.820
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 6669.234.

a. Uses Harmonic Mean Sample Size = 108.000.

b. Alpha = .05.

Hardness

Duncan^{a,b}

Baking_powder	N	Subset	
		1	2
0,5%	144	912.15592	
0%	144	915.44777	
1%	144		1056.595
Sig.		.733	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 6669.234.

a. Uses Harmonic Mean Sample Size = 144.000.

b. Alpha = .05.

Hardness

Duncan^{a,b}

Steaming	N	Subset				
		1	2	3	4	5
0	72	241.10238				
2	72		504.27272			
5	72			1075.299		
15	72				1274.750	
10	72				1289.119	
20	72					1383.854
Sig.		1.000	1.000	1.000	.292	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 6669.234.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hard_0	Between Groups	128663.1	11	11696.649	7.977	.000
	Within Groups	87981.207	60	1466.353		
	Total	216644.3	71			
Hard_2	Between Groups	736056.1	11	66914.187	26.018	.000
	Within Groups	154307.8	60	2571.796		
	Total	890363.8	71			
Hard_5	Between Groups	2117023	11	192456.661	27.844	.000
	Within Groups	414723.8	60	6912.063		
	Total	2531747	71			
Hard_10	Between Groups	3681385	11	334671.374	38.822	.000
	Within Groups	517234.0	60	8620.566		
	Total	4198619	71			
Hard_15	Between Groups	2741111	11	249191.929	22.582	.000
	Within Groups	662104.7	60	11035.078		
	Total	3403216	71			
Hard_20	Between Groups	3627243	11	329749.370	35.044	.000
	Within Groups	564572.9	60	9409.548		
	Total	4191816	71			

Post Hoc ANOVA Satu Arah

Hard_0

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
1:3,0.5%	6	186.63933				
1:2,1%	6	186.88617				
1:3,1%	6	210.10083	210.10083			
Kontrol,1%	6	213.11567	213.11567			
Kontrol,0.5%	6	218.95283	218.95283			
1:2,0.5%	6	227.59150	227.59150	227.59150		
Kontrol,0%	6		246.21567	246.21567		
1:1,0.5%	6		248.90750	248.90750		
1:2,0%	6		249.41833	249.41833		
1:3,0%	6			271.70633	271.70633	
1:1,1%	6				300.21333	300.21333
1:1,0%	6					333.48100
Sig.		.110	.130	.079	.202	.138

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Hard_2

Duncan^a

Kombinasi	N	Subset for alpha = .05					
		1	2	3	4	5	6
1:3,0.5%	6	374.10933					
Kontrol,1%	6	377.38217					
1:3,1%	6	386.98400					
1:2,0%	6		449.68817				
1:3,0%	6		452.63617				
1:2,0.5%	6		463.98017				
Kontrol,0%	6		499.82167	499.82167			
Kontrol,0.5%	6			551.71767	551.71767		
1:1,0%	6			557.56050	557.56050		
1:1,0.5%	6				609.08867	609.08867	
1:1,1%	6					637.82033	637.82033
1:2,1%	6						690.48383
Sig.		.682	.123	.066	.068	.330	.077

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Hard_5

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
1:3,0.5%	6	773.52467				
1:1,0%	6		951.38483			
1:3,1%	6		980.65833			
Kontrol,0%	6		988.05667			
1:2,0%	6		1002.179			
Kontrol,1%	6		1011.329			
Kontrol,0.5%	6		1055.836	1055.836		
1:2,0.5%	6			1113.949	1113.949	
1:1,1%	6				1164.515	
1:3,0%	6				1174.929	
1:1,0.5%	6				1175.294	
1:2,1%	6					1511.935
Sig.		1.000	.059	.231	.251	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Hard_10

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
1:3,0.5%	6	945.62950						
Kontrol,0%	6		1084.163					
1:1,0%	6		1129.491	1129.491				
1:3,0%	6		1145.562	1145.562				
Kontrol,1%	6		1174.084	1174.084				
1:1,0.5%	6		1196.423	1196.423				
Kontrol,0.5%	6			1220.591	1220.591			
1:2,0%	6				1327.124	1327.124		
1:3,1%	6					1355.382		
1:2,0.5%	6						1529.741	
1:1,1%	6						1607.557	
1:2,1%	6							1753.688
Sig.		1.000	.065	.136	.051	.600	.152	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Hard_15

Duncan^a

Kombinasi	N	Subset for alpha = .05					
		1	2	3	4	5	6
1:3,0.5%	6	923.66650					
1:2,0%	6		1055.280				
1:1,0%	6		1117.457	1117.457			
Kontrol,1%	6		1163.395	1163.395			
1:3,1%	6			1216.559	1216.559		
1:3,0%	6				1301.970	1301.970	
1:2,0.5%	6				1303.927	1303.927	
Kontrol,0%	6				1313.795	1313.795	
Kontrol,0.5%	6				1316.988	1316.988	
1:1,0.5%	6					1358.160	
1:2,1%	6						1566.271
1:1,1%	6						1659.530
Sig.		1.000	.097	.128	.146	.418	.129

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Hard_20

Duncan^a

Kombinasi	N	Subset for alpha = .05					
		1	2	3	4	5	6
1:3,0.5%	6	1000.179					
Kontrol,0%	6		1238.447				
Kontrol,0.5%	6		1240.607				
1:3,1%	6		1307.502	1307.502			
1:1,0%	6		1312.627	1312.627			
1:2,0%	6		1324.592	1324.592	1324.592		
Kontrol,1%	6		1337.578	1337.578	1337.578		
1:2,0.5%	6			1426.030	1426.030		
1:1,0.5%	6			1430.211	1430.211		
1:3,0%	6				1443.162		
1:1,1%	6					1561.307	
1:2,1%	6						1984.004
Sig.		1.000	.127	.058	.062	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.



• **Lampiran 2. Tingkat Elastisitas (*Springiness*)**

		Tests of Normality ^a					
Springiness	Kombinasi_1	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	Kontrol,0%,0	.198	6	.200*	.945	6	.702
	Kontrol,0%,2	.239	6	.200*	.867	6	.213
	Kontrol,0%,5	.349	6	.021	.757	6	.023
	Kontrol,0%,10	.194	6	.200*	.923	6	.529
	Kontrol,0%,15	.166	6	.200*	.945	6	.701
	Kontrol,0%,20	.311	6	.072	.817	6	.083
	Kontrol,0.5%,0	.257	6	.200*	.901	6	.381
	Kontrol,0.5%,2	.248	6	.200*	.893	6	.336
	Kontrol,0.5%,5	.246	6	.200*	.910	6	.439
	Kontrol,0.5%,10	.264	6	.200*	.924	6	.535
	Kontrol,0.5%,15	.291	6	.123	.895	6	.347
	Kontrol,0.5%,20	.252	6	.200*	.873	6	.240
	Kontrol,1%,0	.193	6	.200*	.978	6	.940
	Kontrol,1%,2	.252	6	.200*	.868	6	.217
	Kontrol,1%,5	.290	6	.125	.831	6	.110
	Kontrol,1%,10	.180	6	.200*	.929	6	.572
	Kontrol,1%,15	.258	5	.200*	.919	5	.522
	Kontrol,1%,20	.282	7	.097	.868	7	.178
	1:1,0%,0	.249	6	.200*	.888	6	.310
	1:1,0%,2	.183	6	.200*	.967	6	.871
	1:1,0%,5	.242	6	.200*	.902	6	.386
	1:1,0%,10	.182	6	.200*	.927	6	.557
	1:1,0%,15	.290	6	.126	.850	6	.159
	1:1,0%,20	.235	6	.200*	.921	6	.515
	1:1,0.5%,0	.195	6	.200*	.932	6	.594
	1:1,0.5%,2	.232	6	.200*	.925	6	.545
	1:1,0.5%,5	.171	6	.200*	.974	6	.918
	1:1,0.5%,10	.187	6	.200*	.947	6	.716
	1:1,0.5%,15	.197	6	.200*	.963	6	.843
	1:1,0.5%,20	.186	6	.200*	.914	6	.466
	1:1,1%,0	.262	6	.200*	.895	6	.344
	1:1,1%,2	.291	6	.123	.769	6	.030
	1:1,1%,5	.157	6	.200*	.948	6	.726
	1:1,1%,10	.172	6	.200*	.973	6	.913
	1:1,1%,15	.169	6	.200*	.988	6	.984
	1:1,1%,20	.199	6	.200*	.917	6	.481
	1:2,0%,0	.293	6	.118	.817	6	.082
	1:2,0%,2	.435	6	.001	.632	6	.001
	1:2,0%,5	.189	6	.200*	.922	6	.516
	1:2,0%,10	.237	6	.200*	.860	6	.191
	1:2,0%,15	.213	6	.200*	.913	6	.453
	1:2,0%,20	.197	6	.200*	.970	6	.890
	1:2,0.5%,0	.328	6	.042	.774	6	.034
	1:2,0.5%,2	.219	6	.200*	.896	6	.350
	1:2,0.5%,5	.302	6	.092	.867	6	.214
	1:2,0.5%,10	.224	6	.200*	.891	6	.322
	1:2,0.5%,15	.306	6	.082	.856	6	.176
	1:2,0.5%,20	.222	6	.200*	.910	6	.434
	1:2,1%,0	.202	6	.200*	.970	6	.894
	1:2,1%,2	.198	6	.200*	.931	6	.585
	1:2,1%,5	.307	6	.080	.845	6	.142
	1:2,1%,10	.258	6	.200*	.907	6	.416
	1:2,1%,15	.327	6	.045	.764	6	.027
	1:2,1%,20	.241	6	.200*	.908	6	.421
	1:3,0%,0	.257	6	.200*	.893	6	.333
	1:3,0%,2	.261	6	.200*	.922	6	.519
	1:3,0%,5	.298	6	.104	.801	6	.060
	1:3,0%,10	.336	6	.033	.867	6	.216
	1:3,0%,15	.200	6	.200*	.943	6	.683
	1:3,0%,20	.187	6	.200*	.931	6	.589
	1:3,0.5%,0	.315	6	.064	.799	6	.057
	1:3,0.5%,2	.174	6	.200*	.942	6	.672
	1:3,0.5%,5	.258	6	.200*	.892	6	.331
	1:3,0.5%,10	.277	6	.167	.897	6	.357
	1:3,0.5%,15	.222	6	.200*	.930	6	.582
	1:3,0.5%,20	.186	6	.200*	.942	6	.676
	1:3,1%,0	.244	6	.200*	.869	6	.220
	1:3,1%,2	.235	6	.200*	.939	6	.650
	1:3,1%,5	.278	6	.164	.898	6	.360
	1:3,1%,10	.243	6	.200*	.886	6	.296
	1:3,1%,15	.265	6	.200*	.883	6	.282
	1:3,1%,20	.280	6	.154	.864	6	.203

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: Springiness

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12161.179 ^a	71	171.284	155.430	.000
Intercept	85347.301	1	85347.301	77447.725	.000
Bit	123.083	3	41.028	37.230	.000
Baking_powder	46.295	2	23.147	21.005	.000
Steaming	11351.359	5	2270.272	2060.140	.000
Bit * Baking_powder	25.641	6	4.274	3.878	.001
Bit * Steaming	245.428	15	16.362	14.847	.000
Baking_powder * Steaming	135.681	10	13.568	12.312	.000
Bit * Baking_powder * Steaming	233.691	30	7.790	7.069	.000
Error	396.720	360	1.102		
Total	97905.200	432			
Corrected Total	12557.899	431			

a. R Squared = .968 (Adjusted R Squared = .962)

Post Hoc ANOVA Tiga Arah

Springiness

Duncan^{a,b}

Bit	N	Subset		
		1	2	3
1:1	108	13.17301		
1:3	108		14.22006	
1:2	108		14.22068	
Kontrol	108			14.60913
Sig.		1.000	.997	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1.102.

a. Uses Harmonic Mean Sample Size = 108.000.

b. Alpha = .05.

Springiness

Duncan^{a,b}

Baking_powder	N	Subset		
		1	2	3
0%	144	13.62411		
1%	144		14.12649	
0,5%	144			14.41655
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1.102.

a. Uses Harmonic Mean Sample Size = 144.000.

b. Alpha = .05.

Springiness

Duncan^{a,b}

Steaming	N	Subset				
		1	2	3	4	5
2	72	6.16860				
0	72		8.39450			
5	72			13.83242		
10	72				18.35218	
20	72					18.75603
15	72					18.83058
Sig.		1.000	1.000	1.000	1.000	.670

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1.102.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Spring_0	Between Groups	150.269	11	13.661	5.406	.000
	Within Groups	151.617	60	2.527		
	Total	301.886	71			
Spring_2	Between Groups	37.931	11	3.448	4.799	.000
	Within Groups	43.110	60	.719		
	Total	81.041	71			
Spring_5	Between Groups	393.607	11	35.782	23.840	.000
	Within Groups	90.058	60	1.501		
	Total	483.665	71			
Spring_10	Between Groups	100.357	11	9.123	16.277	.000
	Within Groups	33.630	60	.560		
	Total	133.986	71			
Spring_15	Between Groups	82.549	11	7.504	9.908	.000
	Within Groups	45.447	60	.757		
	Total	127.996	71			
Spring_20	Between Groups	45.107	11	4.101	7.488	.000
	Within Groups	32.858	60	.548		
	Total	77.965	71			

Post Hoc ANOVA Satu Arah

Spring_0

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
1:2,1%	6	5.11083				
1:2,0%	6		7.17817			
1:1,0%	6		7.70133	7.70133		
Kontrol,1%	6		7.79533	7.79533		
1:3,0%	6		8.05850	8.05850		
1:3,0.5%	6		8.23983	8.23983		
1:1,1%	6		8.31450	8.31450		
1:3,1%	6		8.45617	8.45617	8.45617	
1:1,0.5%	6		9.18183	9.18183	9.18183	9.18183
Kontrol,0%	6			9.43133	9.43133	9.43133
Kontrol,0.5%	6				10.43433	10.43433
1:2,0.5%	6					10.83183
Sig.		1.000	.065	.112	.052	.106

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Spring_2

Duncan^a

Kombinasi	N	Subset for alpha = .05			
		1	2	3	4
1:3,0%	6	5.00883			
Kontrol,1%	6	5.04783			
1:3,0.5%	6	5.54167	5.54167		
1:3,1%	6	5.56900	5.56900		
1:1,0.5%	6		6.15717	6.15717	
Kontrol,0%	6		6.18267	6.18267	
1:2,1%	6		6.38350	6.38350	6.38350
1:1,0%	6		6.41100	6.41100	6.41100
1:2,0.5%	6		6.41800	6.41800	6.41800
1:2,0%	6			6.74800	6.74800
Kontrol,0.5%	6			7.23017	7.23017
1:1,1%	6				7.32533
Sig.		.305	.128	.061	.096

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Spring_5

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
1:1,1%	6	9.00300							
1:1,0.5%	6		11.14083						
1:3,0%	6		12.47367	12.47367					
1:1,0%	6		12.62033	12.62033					
1:2,0%	6			12.93333	12.93333				
1:2,0.5%	6			13.79717	13.79717	13.79717			
1:3,1%	6				14.16583	14.16583			
1:2,1%	6					14.72267	14.72267		
Kontrol,1%	6					14.81450	14.81450	14.81450	
Kontrol,0%	6						15.83317	15.83317	
Kontrol,0.5%	6							16.29800	
1:3,0.5%	6								18.18650
Sig.		1.000	.051	.092	.104	.196	.144	.051	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Spring_10

Duncan^a

Kombinasi	N	Subset for alpha = .05					
		1	2	3	4	5	6
1:1,0%	6	16.78817					
1:1,0.5%	6	16.89733					
1:3,0%	6	17.44667	17.44667				
Kontrol,0%	6	17.48317	17.48317				
1:1,1%	6	17.68450	17.68450				
1:2,0%	6		17.98767	17.98767			
Kontrol,0.5%	6		18.37083	18.37083	18.37083		
1:3,0.5%	6			18.84250	18.84250	18.84250	
1:2,0.5%	6			18.86783	18.86783	18.86783	
1:2,1%	6				19.15817	19.15817	
Kontrol,1%	6					19.68883	
1:3,1%	6						21.01050
Sig.		.068	.060	.066	.101	.078	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Spring_15

Duncan^a

Kombinasi	N	Subset for alpha = .05			
		1	2	3	4
1:1,0%	6	17.49400			
1:1,0.5%	6	18.02450	18.02450		
Kontrol,0%	6	18.11100	18.11100		
1:1,1%	6	18.14217	18.14217		
1:3,0%	6	18.45000	18.45000	18.45000	
Kontrol,0.5%	6	18.48917	18.48917	18.48917	
1:2,0%	6	18.54500	18.54500	18.54500	
1:3,0.5%	6		18.77367	18.77367	
1:3,1%	6			19.32583	
Kontrol,1%	6			19.34550	
1:2,0.5%	6			19.41333	
1:2,1%	6				21.85283
Sig.		.074	.206	.102	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Spring_20

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
1:1,0%	6	17.96383				
1:2,1%	6	17.99867				
1:1,1%	6	18.07533	18.07533			
1:1,0.5%	6	18.18900	18.18900	18.18900		
Kontrol,0.5%	6	18.47967	18.47967	18.47967	18.47967	
1:3,0%	6	18.54667	18.54667	18.54667	18.54667	
1:2,0%	6	18.58150	18.58150	18.58150	18.58150	
1:3,0.5%	6	18.74833	18.74833	18.74833	18.74833	
Kontrol,0%	6		19.00067	19.00067	19.00067	
1:3,1%	6			19.11683	19.11683	
1:2,0.5%	6				19.44367	
Kontrol,1%	6					20.92817
Sig.		.122	.064	.064	.054	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.



• Lampiran 3. Volume

Tests of Normality

Kombinasi_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Volume						
Kontrol,0%,0	.149	6	.200*	.983	6	.965
Kontrol,0%,2	.270	6	.194	.836	6	.121
Kontrol,0%,5	.176	6	.200*	.907	6	.415
Kontrol,0%,10	.200	6	.200*	.960	6	.823
Kontrol,0%,15	.160	6	.200*	.965	6	.860
Kontrol,0%,20	.202	6	.200*	.962	6	.835
Kontrol,0.5%,0	.179	6	.200*	.940	6	.662
Kontrol,0.5%,2	.275	6	.175	.786	6	.044
Kontrol,0.5%,5	.194	6	.200*	.971	6	.896
Kontrol,0.5%,10	.186	6	.200*	.926	6	.551
Kontrol,0.5%,15	.219	6	.200*	.883	6	.282
Kontrol,0.5%,20	.236	6	.200*	.916	6	.480
Kontrol,1%,0	.251	6	.200*	.850	6	.159
Kontrol,1%,2	.167	6	.200*	.979	6	.949
Kontrol,1%,5	.189	6	.200*	.924	6	.538
Kontrol,1%,10	.196	6	.200*	.929	6	.571
Kontrol,1%,15	.275	5	.200*	.879	5	.305
Kontrol,1%,20	.247	7	.200*	.876	7	.210
1:1,0%,0	.212	6	.200*	.932	6	.595
1:1,0%,2	.235	6	.200*	.905	6	.406
1:1,0%,5	.204	6	.200*	.937	6	.634
1:1,0%,10	.173	6	.200*	.941	6	.667
1:1,0%,15	.230	6	.200*	.935	6	.621
1:1,0%,20	.241	6	.200*	.914	6	.463
1:1,0.5%,0	.115	6	.200*	.996	6	.998
1:1,0.5%,2	.191	6	.200*	.934	6	.610
1:1,0.5%,5	.183	6	.200*	.980	6	.953
1:1,0.5%,10	.213	6	.200*	.961	6	.825
1:1,0.5%,15	.263	6	.200*	.907	6	.418
1:1,0.5%,20	.189	6	.200*	.932	6	.596
1:1,1%,0	.201	6	.200*	.893	6	.332
1:1,1%,2	.160	6	.200*	.945	6	.700
1:1,1%,5	.221	6	.200*	.938	6	.647
1:1,1%,10	.243	6	.200*	.958	6	.807
1:1,1%,15	.180	6	.200*	.964	6	.848
1:1,1%,20	.196	6	.200*	.929	6	.571
1:2,0%,0	.271	6	.192	.798	6	.056
1:2,0%,2	.291	6	.122	.807	6	.068
1:2,0%,5	.203	6	.200*	.949	6	.729
1:2,0%,10	.237	6	.200*	.911	6	.445
1:2,0%,15	.240	6	.200*	.863	6	.200
1:2,0%,20	.212	6	.200*	.948	6	.726
1:2,0.5%,0	.236	6	.200*	.936	6	.625
1:2,0.5%,2	.221	6	.200*	.894	6	.341
1:2,0.5%,5	.140	6	.200*	.988	6	.982
1:2,0.5%,10	.193	6	.200*	.971	6	.899
1:2,0.5%,15	.224	6	.200*	.926	6	.546
1:2,0.5%,20	.236	6	.200*	.928	6	.565
1:2,1%,0	.338	6	.030	.785	6	.043
1:2,1%,2	.178	6	.200*	.938	6	.644
1:2,1%,5	.171	6	.200*	.966	6	.863
1:2,1%,10	.177	6	.200*	.945	6	.702
1:2,1%,15	.172	6	.200*	.957	6	.796
1:2,1%,20	.223	6	.200*	.921	6	.510
1:3,0%,0	.260	6	.200*	.924	6	.533
1:3,0%,2	.150	6	.200*	.979	6	.945
1:3,0%,5	.362	6	.014	.655	6	.002
1:3,0%,10	.153	6	.200*	.958	6	.801
1:3,0%,15	.292	6	.121	.827	6	.101
1:3,0%,20	.207	6	.200*	.892	6	.331
1:3,0.5%,0	.220	6	.200*	.932	6	.596
1:3,0.5%,2	.160	6	.200*	.966	6	.865
1:3,0.5%,5	.279	6	.159	.908	6	.421
1:3,0.5%,10	.195	6	.200*	.920	6	.505
1:3,0.5%,15	.226	6	.200*	.953	6	.763
1:3,0.5%,20	.143	6	.200*	.988	6	.983
1:3,1%,0	.247	6	.200*	.928	6	.563
1:3,1%,2	.151	6	.200*	.961	6	.830
1:3,1%,5	.187	6	.200*	.952	6	.755
1:3,1%,10	.212	6	.200*	.938	6	.644
1:3,1%,15	.162	6	.200*	.945	6	.701
1:3,1%,20	.239	6	.200*	.930	6	.583

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: Volume

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	55914.689 ^a	71	787.531	3070.185	.000
Intercept	1717103.708	1	1717103.708	6694120	.000
Bit	301.588	3	100.529	391.913	.000
Baking_powder	213.784	2	106.892	416.717	.000
Steaming	54192.271	5	10838.454	42253.657	.000
Bit * Baking_powder	430.733	6	71.789	279.869	.000
Bit * Steaming	356.131	15	23.742	92.558	.000
Baking_powder * Steaming	151.628	10	15.163	59.112	.000
Bit * Baking_powder * Steaming	268.554	30	8.952	34.899	.000
Error	92.343	360	.257		
Total	1773110.740	432			
Corrected Total	56007.033	431			

a. R Squared = .998 (Adjusted R Squared = .998)

Post Hoc ANOVA Tiga Arah

Volume

Duncan^{a,b}

Bit	N	Subset		
		1	2	3
1:2	108	62.417		
1:3	108	62.551		
1:1	108		62.736	
Kontrol	108			64.480
Sig.		.052	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .257.

a. Uses Harmonic Mean Sample Size = 108.000.

b. Alpha = .05.

Volume

Duncan^{a,b}

Baking_powder	N	Subset	
		1	2
1%	144	62.508	
0%	144	62.590	
0,5%	144		64.040
Sig.		.174	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .257.

a. Uses Harmonic Mean Sample Size = 144.000.

b. Alpha = .05.

Volume

Duncan^{a,b}

Steaming	N	Subset					
		1	2	3	4	5	6
0	72	42.665					
2	72		54.236				
5	72			64.756			
10	72				70.554		
15	72					72.343	
20	72						73.721
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .257.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Volume_0	Between Groups	329.388	11	29.944	108.527	.000
	Within Groups	16.555	60	.276		
	Total	345.943	71			
Vol_2	Between Groups	490.913	11	44.628	224.013	.000
	Within Groups	11.953	60	.199		
	Total	502.866	71			
Vol_5	Between Groups	180.668	11	16.424	29.709	.000
	Within Groups	33.170	60	.553		
	Total	213.838	71			
Vol_10	Between Groups	182.137	11	16.558	89.008	.000
	Within Groups	11.162	60	.186		
	Total	193.299	71			
Vol_15	Between Groups	256.065	11	23.279	121.966	.000
	Within Groups	11.452	60	.191		
	Total	267.517	71			
Vol_20	Between Groups	283.247	11	25.750	191.884	.000
	Within Groups	8.052	60	.134		
	Total	291.299	71			

Post Hoc ANOVA Satu Arah

Volume_0

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
Kontrol,0%	6	37.733							
1:1,0%	6		39.767						
1:2,1%	6			41.283					
1:1,1%	6				42.100				
1:2,0%	6				42.217				
Kontrol,1%	6					42.900			
1:3,0%	6					43.117	43.117		
1:2,0.5%	6						43.667		
1:3,0.5%	6							44.483	
1:3,1%	6							44.733	44.733
1:1,0.5%	6							44.800	44.800
Kontrol,0.5%	6								45.183
Sig.		1.000	1.000	1.000	.702	.478	.075	.331	.167

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Vol_2

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
Kontrol,1%	6	51.900						
1:3,0.5%	6	51.900						
1:3,0%	6	52.067						
1:1,1%	6		52.883					
1:1,0%	6		53.150	53.150				
1:2,0%	6		53.350	53.350				
1:2,0.5%	6		53.433	53.433				
1:3,1%	6			53.517				
1:1,0.5%	6				54.333			
1:2,1%	6					56.000		
Kontrol,0%	6						56.933	
Kontrol,0.5%	6							61.367
Sig.		.547	.054	.201	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Vol_5

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
1:3,0%	6	62.650						
Kontrol,1%	6	63.000	63.000					
1:3,0.5%	6		63.667	63.667				
1:2,0%	6		63.850	63.850				
1:1,0%	6			64.000	64.000			
1:3,1%	6			64.150	64.150			
Kontrol,0%	6			64.417	64.417	64.417		
1:1,0.5%	6				64.883	64.883		
1:1,1%	6					65.167		
1:2,1%	6						66.167	
1:2,0.5%	6						66.650	
Kontrol,0.5%	6							68.467
Sig.		.418	.065	.125	.064	.104	.265	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Vol_10

Duncan^a

Kombinasi	N	Subset for alpha = .05					
		1	2	3	4	5	6
1:2,0.5%	6	69.050					
1:2,0%	6	69.283	69.283				
Kontrol,1%	6	69.450	69.450	69.450			
1:1,1%	6	69.583	69.583	69.583			
1:2,1%	6		69.683	69.683			
1:3,0.5%	6		69.767	69.767			
1:1,0%	6			69.883			
1:3,1%	6				70.817		
1:3,0%	6				70.950		
Kontrol,0%	6					71.567	
1:1,0.5%	6					71.567	
Kontrol,0.5%	6						75.050
Sig.		.053	.088	.126	.594	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Vol_15

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
1:2,0%	6	70.417						
1:1,1%	6	70.517						
1:2,0.5%	6	70.533						
1:2,1%	6		71.067					
1:3,0.5%	6		71.150					
1:3,0%	6			71.717				
Kontrol,1%	6				72.350			
1:3,1%	6				72.567			
1:1,0.5%	6				72.750			
1:1,0%	6					73.367		
Kontrol,0%	6						74.583	
Kontrol,0.5%	6							77.100
Sig.		.667	.742	1.000	.140	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

Vol_20

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
1:1,1%	6	71.750						
1:2,1%	6	72.133	72.133					
1:2,0%	6		72.217	72.217				
1:2,0.5%	6		72.500	72.500				
1:3,0.5%	6			72.617	72.617			
1:3,0%	6			72.617	72.617			
Kontrol,1%	6				73.050	73.050		
1:3,1%	6					73.433		
1:1,0.5%	6						74.183	
1:1,0%	6						74.567	
Kontrol,0%	6							77.733
Kontrol,0.5%	6							77.850
Sig.		.075	.106	.088	.056	.075	.075	.583

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.



• **Lampiran 4. Tingkat Kecerahan (L*)**

Tests of Normality ^a							
Kombinasi_1	Kolmogorov-Smirnov			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	Sig.
L	Kontrol,0%,0	.250	6	.200*	.878	6	.258
	Kontrol,0%,2	.234	6	.200*	.907	6	.418
	Kontrol,0%,5	.154	6	.200*	.964	6	.848
	Kontrol,0%,10	.196	6	.200*	.951	6	.746
	Kontrol,0%,15	.234	6	.200*	.890	6	.319
	Kontrol,0%,20	.259	6	.200*	.822	6	.092
	Kontrol,0.5%,0	.273	6	.182	.862	6	.197
	Kontrol,0.5%,2	.204	6	.200*	.955	6	.782
	Kontrol,0.5%,5	.213	6	.200*	.897	6	.359
	Kontrol,0.5%,10	.225	6	.200*	.915	6	.472
	Kontrol,0.5%,15	.164	6	.200*	.982	6	.959
	Kontrol,0.5%,20	.249	6	.200*	.856	6	.175
	Kontrol,1%,0	.238	6	.200*	.955	6	.783
	Kontrol,1%,2	.215	6	.200*	.877	6	.254
	Kontrol,1%,5	.214	6	.200*	.878	6	.258
	Kontrol,1%,10	.300	6	.099	.848	6	.153
	Kontrol,1%,15	.283	5	.200*	.915	5	.501
	Kontrol,1%,20	.223	7	.200*	.902	7	.345
	1:1.0%,0	.226	6	.200*	.933	6	.606
	1:1.0%,2	.257	6	.200*	.851	6	.161
	1:1.0%,5	.314	6	.064	.817	6	.083
	1:1.0%,10	.263	6	.200*	.909	6	.430
	1:1.0%,15	.187	6	.200*	.956	6	.788
	1:1.0%,20	.256	6	.200*	.836	6	.121
	1:1.0.5%,0	.176	6	.200*	.928	6	.563
	1:1.0.5%,2	.145	6	.200*	.968	6	.877
	1:1.0.5%,5	.229	6	.200*	.913	6	.460
	1:1.0.5%,10	.190	6	.200*	.934	6	.608
	1:1.0.5%,15	.208	6	.200*	.904	6	.399
	1:1.0.5%,20	.135	6	.200*	.981	6	.958
	1:1.1%,0	.236	6	.200*	.906	6	.413
	1:1.1%,2	.151	6	.200*	.989	6	.987
	1:1.1%,5	.358	6	.016	.812	6	.075
	1:1.1%,10	.285	6	.140	.838	6	.126
	1:1.1%,15	.343	6	.027	.762	6	.026
	1:1.1%,20	.212	6	.200*	.904	6	.399
	1:2.0%,0	.190	6	.200*	.931	6	.587
	1:2.0%,2	.230	6	.200*	.831	6	.109
	1:2.0%,5	.274	6	.180	.877	6	.256
	1:2.0%,10	.188	6	.200*	.964	6	.850
	1:2.0%,15	.184	6	.200*	.923	6	.525
	1:2.0%,20	.317	6	.059	.830	6	.107
	1:2.0.5%,0	.176	6	.200*	.965	6	.857
	1:2.0.5%,2	.203	6	.200*	.883	6	.285
	1:2.0.5%,5	.167	6	.200*	.955	6	.781
	1:2.0.5%,10	.229	6	.200*	.892	6	.327
	1:2.0.5%,15	.195	6	.200*	.913	6	.459
	1:2.0.5%,20	.294	6	.115	.886	6	.300
	1:2.1%,0	.344	6	.025	.770	6	.031
	1:2.1%,2	.300	6	.098	.857	6	.181
	1:2.1%,5	.236	6	.200*	.920	6	.508
	1:2.1%,10	.219	6	.200*	.925	6	.542
	1:2.1%,15	.185	6	.200*	.956	6	.792
	1:2.1%,20	.203	6	.200*	.958	6	.803
	1:3.0%,0	.265	6	.200*	.893	6	.335
	1:3.0%,2	.235	6	.200*	.939	6	.649
	1:3.0%,5	.194	6	.200*	.925	6	.541
	1:3.0%,10	.195	6	.200*	.939	6	.650
	1:3.0%,15	.192	6	.200*	.943	6	.682
	1:3.0%,20	.221	6	.200*	.960	6	.822
	1:3.0.5%,0	.204	6	.200*	.882	6	.277
	1:3.0.5%,2	.264	6	.200*	.846	6	.147
	1:3.0.5%,5	.212	6	.200*	.942	6	.673
	1:3.0.5%,10	.190	6	.200*	.916	6	.475
	1:3.0.5%,15	.342	6	.027	.800	6	.059
	1:3.0.5%,20	.194	6	.200*	.917	6	.482
	1:3.1%,0	.251	6	.200*	.943	6	.683
	1:3.1%,2	.197	6	.200*	.938	6	.644
	1:3.1%,5	.189	6	.200*	.881	6	.276
	1:3.1%,10	.181	6	.200*	.968	6	.881
	1:3.1%,15	.193	6	.200*	.886	6	.297
	1:3.1%,20	.184	6	.200*	.937	6	.636

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: L

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	66841.204 ^a	71	941.425	4069.634	.000
Intercept	1775875.222	1	1775875.222	7676829	.000
Bit	58003.585	3	19334.528	83580.125	.000
Baking_powder	881.715	2	440.858	1905.758	.000
Steaming	4887.662	5	977.532	4225.719	.000
Bit * Baking_powder	449.272	6	74.879	323.689	.000
Bit * Steaming	2325.747	15	155.050	670.256	.000
Baking_powder * Steaming	139.361	10	13.936	60.244	.000
Bit * Baking_powder * Steaming	153.861	30	5.129	22.171	.000
Error	83.279	360	.231		
Total	1842799.705	432			
Corrected Total	66924.483	431			

a. R Squared = .999 (Adjusted R Squared = .999)

Post Hoc ANOVA Tiga Arah

L

Duncan^{a,b}

Bit	N	Subset			
		1	2	3	4
1:1	108	53.7556			
1:2	108		57.2089		
1:3	108			61.9566	
Kontrol	108				83.5418
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .231.

a. Uses Harmonic Mean Sample Size = 108.000.

b. Alpha = .05.

L

Duncan^{a,b}

Baking_powder	N	Subset		
		1	2	3
0%	144	62.2456		
0,5%	144		64.3886	
1%	144			65.7129
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .231.

a. Uses Harmonic Mean Sample Size = 144.000.

b. Alpha = .05.

L

Duncan^{a,b}

Steaming	N	Subset					
		1	2	3	4	5	6
0	72	59.5865					
2	72		60.4053				
5	72			63.2564			
10	72				65.4275		
15	72					67.3669	
20	72						68.6515
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .231.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
L_0	Between Groups	15971.026	11	1451.911	9004.199	.000
	Within Groups	9.675	60	.161		
	Total	15980.701	71			
L_2	Between Groups	12695.389	11	1154.126	6209.528	.000
	Within Groups	11.152	60	.186		
	Total	12706.540	71			
L_5	Between Groups	11881.265	11	1080.115	7248.550	.000
	Within Groups	8.941	60	.149		
	Total	11890.205	71			
L_10	Between Groups	8775.199	11	797.745	2272.448	.000
	Within Groups	21.063	60	.351		
	Total	8796.262	71			
L_15	Between Groups	6849.630	11	622.694	3245.149	.000
	Within Groups	11.513	60	.192		
	Total	6861.143	71			
L_20	Between Groups	5782.128	11	525.648	1510.724	.000
	Within Groups	20.877	60	.348		
	Total	5803.004	71			

Post Hoc ANOVA Satu Arah

L_0

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
1:1,0.5%	6	47.4700								
1:1,1%	6		48.0450							
1:1,0%	6		48.1017							
1:2,0%	6			50.1633						
1:2,0.5%	6			50.4025						
1:2,1%	6				51.2017					
1:3,0%	6					52.3192				
1:3,0.5%	6						55.3542			
1:3,1%	6							57.1183		
Kontrol,0.5%	6								84.5900	
Kontrol,1%	6								84.6800	
Kontrol,0%	6									85.5633
Sig.		1.000	.808	.306	1.000	1.000	1.000	1.000	.699	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

L_2

Duncan^a

Kombinasi	N	Subset for alpha = .05											
		1	2	3	4	5	6	7	8	9	10	11	
1:1,0%	6	47.9700											
1:1,0.5%	6		49.8783										
1:1,1%	6			50.4242									
1:2,0%	6				51.9225								
1:3,0%	6				52.3092	52.3092							
1:2,0.5%	6				52.7567								
1:2,1%	6						55.9225						
1:3,0.5%	6							57.1308					
1:3,1%	6								58.0492				
Kontrol,1%	6									80.3533			
Kontrol,0%	6										83.2383		
Kontrol,0.5%	6											84.8833	
Sig.		1.000	1.000	1.000	.126	.077	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.

L_5

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
1:1,0%	6	48.1233								
1:1,0.5%	6		53.0558							
1:2,0%	6		53.1483	53.1483						
1:1,1%	6			53.5292						
1:2,0.5%	6				54.3983					
1:2,1%	6					58.6075				
1:3,0%	6					58.8250				
1:3,0.5%	6						61.8700			
1:3,1%	6							64.6375		
Kontrol,1%	6								84.0283	
Kontrol,0%	6								84.0850	
Kontrol,0.5%	6									84.7392
Sig.		1.000	.680	.093	1.000	.333	1.000	1.000	.800	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

L_10

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
1:1,0%	6	52.7700							
1:1,0.5%	6		55.5417						
1:2,0%	6		56.1900						
1:2,0.5%	6			57.6633					
1:1,1%	6			58.2458					
1:2,1%	6				61.3133				
1:3,0%	6				61.8792				
1:3,0.5%	6					64.5825			
1:3,1%	6						66.5600		
Kontrol,0%	6							82.8367	
Kontrol,1%	6							83.1008	
Kontrol,0.5%	6								84.4133
Sig.		1.000	.063	.094	.103	1.000	1.000	.443	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

L_15

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
1:1,0%	6	53.9733								
1:1,0.5%	6		58.6033							
1:2,0%	6			59.5292						
1:2,0.5%	6				61.0133					
1:1,1%	6				61.2883					
1:3,0%	6					64.4292				
1:2,1%	6						64.9400			
1:3,0.5%	6							67.8125		
1:3,1%	6							67.8483		
Kontrol,1%	6								82.6275	
Kontrol,0%	6								82.8000	
Kontrol,0.5%	6									83.5117
Sig.		1.000	1.000	1.000	.281	1.000	1.000	.888	.498	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

L_20

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
1:1,0%	6	56.5567								
1:2,0%	6		59.8258							
1:1,0.5%	6		60.3642							
1:2,0.5%	6			63.1983						
1:1,1%	6			63.6125						
1:3,0%	6				65.0950					
1:2,1%	6					67.5233				
1:3,0.5%	6						68.6275			
1:3,1%	6							70.7250		
Kontrol,0%	6								82.1867	
Kontrol,1%	6								82.6717	
Kontrol,0.5%	6									83.4067
Sig.		1.000	.119	.229	1.000	1.000	1.000	1.000	.160	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.



• Lampiran 5. Nilai a*

Tests of Normality

Kombinasi_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
a						
Kontrol,0%,0	.209	6	.200*	.942	6	.676
Kontrol,0%,2	.244	6	.200*	.889	6	.315
Kontrol,0%,5	.251	6	.200*	.893	6	.332
Kontrol,0%,10	.167	6	.200*	.952	6	.759
Kontrol,0%,15	.248	6	.200*	.850	6	.157
Kontrol,0%,20	.172	6	.200*	.916	6	.475
Kontrol,0.5%,0	.224	6	.200*	.904	6	.400
Kontrol,0.5%,2	.265	6	.200*	.826	6	.099
Kontrol,0.5%,5	.178	6	.200*	.979	6	.946
Kontrol,0.5%,10	.192	6	.200*	.954	6	.770
Kontrol,0.5%,15	.207	6	.200*	.890	6	.317
Kontrol,0.5%,20	.190	6	.200*	.942	6	.671
Kontrol,1%,0	.381	6	.007	.660	6	.002
Kontrol,1%,2	.195	6	.200*	.911	6	.440
Kontrol,1%,5	.268	6	.200*	.906	6	.411
Kontrol,1%,10	.349	6	.021	.831	6	.111
Kontrol,1%,15	.165	5	.200*	.988	5	.973
Kontrol,1%,20	.294	7	.068	.858	7	.145
1:1,0%,0	.188	6	.200*	.937	6	.637
1:1,0%,2	.188	6	.200*	.959	6	.809
1:1,0%,5	.161	6	.200*	.937	6	.637
1:1,0%,10	.173	6	.200*	.986	6	.977
1:1,0%,15	.233	6	.200*	.871	6	.228
1:1,0%,20	.212	6	.200*	.871	6	.229
1:1,0.5%,0	.306	6	.082	.853	6	.165
1:1,0.5%,2	.289	6	.128	.908	6	.424
1:1,0.5%,5	.233	6	.200*	.937	6	.632
1:1,0.5%,10	.152	6	.200*	.988	6	.984
1:1,0.5%,15	.237	6	.200*	.935	6	.623
1:1,0.5%,20	.187	6	.200*	.944	6	.693
1:1,1%,0	.148	6	.200*	.985	6	.975
1:1,1%,2	.271	6	.192	.800	6	.059
1:1,1%,5	.154	6	.200*	.964	6	.848
1:1,1%,10	.201	6	.200*	.897	6	.358
1:1,1%,15	.219	6	.200*	.882	6	.279
1:1,1%,20	.203	6	.200*	.963	6	.844
1:2,0%,0	.293	6	.116	.871	6	.232
1:2,0%,2	.209	6	.200*	.956	6	.788
1:2,0%,5	.220	6	.200*	.888	6	.306
1:2,0%,10	.219	6	.200*	.867	6	.216
1:2,0%,15	.196	6	.200*	.928	6	.563
1:2,0%,20	.174	6	.200*	.981	6	.958
1:2,0.5%,0	.326	6	.046	.788	6	.045
1:2,0.5%,2	.232	6	.200*	.876	6	.250
1:2,0.5%,5	.265	6	.200*	.826	6	.100
1:2,0.5%,10	.210	6	.200*	.972	6	.903
1:2,0.5%,15	.243	6	.200*	.844	6	.140
1:2,0.5%,20	.155	6	.200*	.984	6	.971
1:2,1%,0	.217	6	.200*	.963	6	.839
1:2,1%,2	.341	6	.028	.768	6	.030
1:2,1%,5	.181	6	.200*	.966	6	.867
1:2,1%,10	.235	6	.200*	.932	6	.595
1:2,1%,15	.231	6	.200*	.921	6	.516
1:2,1%,20	.350	6	.021	.728	6	.012
1:3,0%,0	.202	6	.200*	.928	6	.564
1:3,0%,2	.156	6	.200*	.963	6	.843
1:3,0%,5	.243	6	.200*	.875	6	.249
1:3,0%,10	.251	6	.200*	.880	6	.268
1:3,0%,15	.207	6	.200*	.936	6	.625
1:3,0%,20	.182	6	.200*	.952	6	.758
1:3,0.5%,0	.187	6	.200*	.926	6	.548
1:3,0.5%,2	.220	6	.200*	.915	6	.472
1:3,0.5%,5	.171	6	.200*	.951	6	.750
1:3,0.5%,10	.151	6	.200*	.972	6	.908
1:3,0.5%,15	.120	6	.200*	.996	6	.998
1:3,0.5%,20	.323	6	.050	.870	6	.227
1:3,1%,0	.178	6	.200*	.918	6	.488
1:3,1%,2	.236	6	.200*	.891	6	.321
1:3,1%,5	.205	6	.200*	.959	6	.809
1:3,1%,10	.240	6	.200*	.946	6	.707
1:3,1%,15	.242	6	.200*	.863	6	.199
1:3,1%,20	.190	6	.200*	.967	6	.871

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: a

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	50083.635 ^a	71	705.403	3358.333	.000
Intercept	65716.193	1	65716.193	312866.2	.000
Bit	31718.386	3	10572.795	50335.691	.000
Baking_powder	964.637	2	482.319	2296.256	.000
Steaming	12129.922	5	2425.984	11549.793	.000
Bit * Baking_powder	890.364	6	148.394	706.484	.000
Bit * Steaming	4135.493	15	275.700	1312.569	.000
Baking_powder * Steaming	79.856	10	7.986	38.018	.000
Bit * Baking_powder * Steaming	164.978	30	5.499	26.181	.000
Error	75.616	360	.210		
Total	115875.445	432			
Corrected Total	50159.252	431			

a. R Squared = .998 (Adjusted R Squared = .998)

Post Hoc ANOVA Tiga Arah

a

Duncan^{a,b}

Bit	N	Subset			
		1	2	3	4
Kontrol	108	-2.3609			
1:3	108		15.6956		
1:2	108			16.9424	
1:1	108				19.0579
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .210.

a. Uses Harmonic Mean Sample Size = 108.000.

b. Alpha = .05.

a

Duncan^{a,b}

Baking_powder	N	Subset		
		1	2	3
1%	144	10.5006		
0,5%	144		12.3397	
0%	144			14.1609
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .210.

a. Uses Harmonic Mean Sample Size = 144.000.

b. Alpha = .05.

a

Duncan^{a,b}

Steaming	N	Subset					
		1	2	3	4	5	6
20	72	4.9363					
15	72		7.1961				
10	72			10.1603			
5	72				14.8840		
2	72					17.3607	
0	72						19.4650
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .210.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
a_0	Between Groups	11147.463	11	1013.406	2295.261	.000
	Within Groups	26.491	60	.442		
	Total	11173.954	71			
a_2	Between Groups	9292.835	11	844.803	2353.091	.000
	Within Groups	21.541	60	.359		
	Total	9314.376	71			
a_5	Between Groups	7788.947	11	708.086	4126.581	.000
	Within Groups	10.295	60	.172		
	Total	7799.243	71			
a_10	Between Groups	4492.109	11	408.374	2548.293	.000
	Within Groups	9.615	60	.160		
	Total	4501.724	71			
a_15	Between Groups	2985.862	11	271.442	5405.103	.000
	Within Groups	3.013	60	.050		
	Total	2988.875	71			
a_20	Between Groups	2229.143	11	202.649	2644.261	.000
	Within Groups	4.598	60	.077		
	Total	2233.741	71			

Analisa ANOVA Satu Arah

a_0

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
Kontrol,0%	6	-1.9200							
Kontrol,0.5%	6	-1.8267							
Kontrol,1%	6	-1.4708							
1:3,1%	6		23.0967						
1:1,0.5%	6			23.8725					
1:2,1%	6			24.1008					
1:1,0%	6				25.4308				
1:2,0.5%	6					26.6692			
1:1,1%	6						27.5158		
1:3,0.5%	6						28.0092	28.0092	
1:2,0%	6							28.3417	
1:3,0%	6								31.7425
Sig.		.275	1.000	.554	1.000	1.000	.203	.390	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

a_2

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
Kontrol,0.5%	6	-2.3208						
Kontrol,0%	6	-1.8900						
Kontrol,1%	6	-1.8642						
1:3,1%	6		19.7067					
1:2,1%	6			20.7300				
1:1,0.5%	6				22.2175			
1:1,0%	6					24.0833		
1:2,0.5%	6						25.0233	
1:3,0%	6						25.0925	
1:3,0.5%	6						25.2825	
1:1,1%	6						25.4967	
1:2,0%	6							26.7508
Sig.		.219	1.000	1.000	1.000	1.000	.219	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

a_5

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
Kontrol,0.5%	6	-2.5533						
Kontrol,1%	6	-2.5275						
Kontrol,0%	6	-2.5117						
1:3,1%	6		15.4550					
1:2,1%	6		15.7050					
1:3,0.5%	6			19.1525				
1:3,0%	6				21.2558			
1:1,0.5%	6				21.6258	21.6258		
1:2,0.5%	6					21.8600		
1:1,0%	6						23.1242	
1:2,0%	6							23.8583
1:1,1%	6							24.1550
Sig.		.871	.300	1.000	.127	.331	1.000	.220

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

a_10

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	
Kontrol,1%	6	-2.6975								
Kontrol,0.5%	6	-2.6533								
Kontrol,0%	6	-2.5775								
1:3,1%	6		8.3500							
1:2,1%	6			9.6800						
1:3,0.5%	6				13.1533					
1:2,0.5%	6					14.9125				
1:3,0%	6					15.1900				
1:1,0.5%	6						16.4775			
1:1,1%	6						16.6983	16.6983		
1:2,0%	6							17.1025		
1:1,0%	6									18.2675
Sig.		.629	1.000	1.000	1.000	.235	.343	.085	1.000	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

a_15

Duncan^a

Kombinasi	N	Subset for alpha = .05									
		1	2	3	4	5	6	7	8	9	10
Kontrol,0.5%	6	-2.6467									
Kontrol,0%	6	-2.6033									
Kontrol,1%	6	-2.5892									
1:3,1%	6		5.0525								
1:2,1%	6			5.4817							
1:3,0.5%	6				8.1958						
1:2,0.5%	6					9.9242					
1:3,0%	6						10.5375				
1:1,1%	6							12.1833			
1:1,0.5%	6								12.7517		
1:2,0%	6									13.7008	
1:1,0%	6										16.3500
Sig.		.679	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.

a_20

Duncan

Kombinasi	N	Subset for alpha = .05										
		1	2	3	4	5	6	7	8	9	10	
Kontrol,0.5%	6	-2.7233										
Kontrol,0%	6	-2.6275										
Kontrol,1%	6	-2.4475										
1:3,1%	6		.8608									
1:2,1%	6			2.2900								
1:3,0.5%	6				4.6750							
1:2,0.5%	6					7.1508						
1:3,0%	6						7.6675					
1:1,1%	6							9.0267				
1:1,0.5%	6								9.8942			
1:2,0%	6									11.6308		
1:1,0%	6										13.8217	
Sig.		.108	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 6. Nilai b*

Tests of Normality

Kombinasi_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
b						
Kontrol,0%,0	.188	6	.200*	.920	6	.508
Kontrol,0%,2	.207	6	.200*	.961	6	.827
Kontrol,0%,5	.208	6	.200*	.955	6	.780
Kontrol,0%,10	.168	6	.200*	.944	6	.693
Kontrol,0%,15	.176	6	.200*	.957	6	.794
Kontrol,0%,20	.150	6	.200*	.978	6	.941
Kontrol,0.5%,0	.284	6	.142	.873	6	.236
Kontrol,0.5%,2	.217	6	.200*	.910	6	.439
Kontrol,0.5%,5	.173	6	.200*	.972	6	.906
Kontrol,0.5%,10	.168	6	.200*	.968	6	.881
Kontrol,0.5%,15	.217	6	.200*	.957	6	.795
Kontrol,0.5%,20	.228	6	.200*	.904	6	.395
Kontrol,1%,0	.169	6	.200*	.930	6	.581
Kontrol,1%,2	.291	6	.124	.802	6	.062
Kontrol,1%,5	.281	6	.151	.839	6	.127
Kontrol,1%,10	.150	6	.200*	.976	6	.928
Kontrol,1%,15	.238	5	.200*	.877	5	.295
Kontrol,1%,20	.203	7	.200*	.933	7	.580
1:1,0%,0	.188	6	.200*	.929	6	.574
1:1,0%,2	.192	6	.200*	.891	6	.322
1:1,0%,5	.176	6	.200*	.949	6	.734
1:1,0%,10	.242	6	.200*	.895	6	.348
1:1,0%,15	.192	6	.200*	.880	6	.268
1:1,0%,20	.261	6	.200*	.864	6	.205
1:1,0.5%,0	.174	6	.200*	.956	6	.785
1:1,0.5%,2	.204	6	.200*	.864	6	.202
1:1,0.5%,5	.192	6	.200*	.932	6	.594
1:1,0.5%,10	.271	6	.193	.882	6	.277
1:1,0.5%,15	.187	6	.200*	.905	6	.403
1:1,0.5%,20	.209	6	.200*	.922	6	.516
1:1,1%,0	.139	6	.200*	.974	6	.921
1:1,1%,2	.182	6	.200*	.959	6	.809
1:1,1%,5	.274	6	.177	.860	6	.190
1:1,1%,10	.244	6	.200*	.929	6	.570
1:1,1%,15	.227	6	.200*	.959	6	.811
1:1,1%,20	.426	6	.001	.642	6	.001
1:2,0%,0	.188	6	.200*	.958	6	.802
1:2,0%,2	.217	6	.200*	.898	6	.364
1:2,0%,5	.231	6	.200*	.924	6	.535
1:2,0%,10	.171	6	.200*	.971	6	.902
1:2,0%,15	.216	6	.200*	.906	6	.412
1:2,0%,20	.169	6	.200*	.976	6	.928
1:2,0.5%,0	.318	6	.057	.807	6	.068
1:2,0.5%,2	.234	6	.200*	.896	6	.349
1:2,0.5%,5	.211	6	.200*	.970	6	.889
1:2,0.5%,10	.198	6	.200*	.957	6	.800
1:2,0.5%,15	.282	6	.146	.831	6	.110
1:2,0.5%,20	.204	6	.200*	.905	6	.407
1:2,1%,0	.299	6	.102	.839	6	.127
1:2,1%,2	.197	6	.200*	.917	6	.485
1:2,1%,5	.199	6	.200*	.890	6	.320
1:2,1%,10	.235	6	.200*	.938	6	.645
1:2,1%,15	.227	6	.200*	.914	6	.461
1:2,1%,20	.186	6	.200*	.905	6	.403
1:3,0%,0	.223	6	.200*	.858	6	.183
1:3,0%,2	.164	6	.200*	.980	6	.953
1:3,0%,5	.224	6	.200*	.908	6	.425
1:3,0%,10	.350	6	.020	.818	6	.085
1:3,0%,15	.292	6	.120	.901	6	.382
1:3,0%,20	.253	6	.200*	.902	6	.388
1:3,0.5%,0	.189	6	.200*	.914	6	.463
1:3,0.5%,2	.286	6	.135	.883	6	.284
1:3,0.5%,5	.293	6	.117	.755	6	.022
1:3,0.5%,10	.183	6	.200*	.897	6	.357
1:3,0.5%,15	.201	6	.200*	.952	6	.760
1:3,0.5%,20	.323	6	.049	.797	6	.055
1:3,1%,0	.250	6	.200*	.860	6	.188
1:3,1%,2	.206	6	.200*	.917	6	.481
1:3,1%,5	.170	6	.200*	.922	6	.522
1:3,1%,10	.195	6	.200*	.968	6	.879
1:3,1%,15	.169	6	.200*	.970	6	.892
1:3,1%,20	.241	6	.200*	.891	6	.326

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: b

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	29638.452 ^a	71	417.443	1839.326	.000
Intercept	91569.005	1	91569.005	403468.8	.000
Bit	7166.933	3	2388.978	10526.248	.000
Baking_powder	136.688	2	68.344	301.134	.000
Steaming	16346.699	5	3269.340	14405.274	.000
Bit * Baking_powder	205.806	6	34.301	151.136	.000
Bit * Steaming	5313.768	15	354.251	1560.892	.000
Baking_powder * Steaming	225.269	10	22.527	99.258	.000
Bit * Baking_powder * Steaming	243.289	30	8.110	35.732	.000
Error	81.704	360	.227		
Total	121289.161	432			
Corrected Total	29720.156	431			

a. R Squared = .997 (Adjusted R Squared = .997)

Post Hoc ANOVA Tiga Arah

b

Duncan^{a,b}

Bit	N	Subset			
		1	2	3	4
1:1	108	10.0068			
1:3	108		13.2638		
1:2	108			13.8179	
Kontrol	108				21.1477
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .227.

a. Uses Harmonic Mean Sample Size = 108.000.

b. Alpha = .05.

bDuncan^{a,b}

Baking_powder	N	Subset		
		1	2	3
0%	144	14.0196		
0,5%	144		14.3224	
1%	144			15.3351
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .227.

a. Uses Harmonic Mean Sample Size = 144.000.

b. Alpha = .05.

bDuncan^{a,b}

Steaming	N	Subset					
		1	2	3	4	5	6
0	72	6.7933					
2	72		8.1892				
5	72			11.3732			
10	72				17.2335		
15	72					20.9915	
20	72						22.7735
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .227.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
b_0	Between Groups	5410.596	11	491.872	4509.063	.000
	Within Groups	6.545	60	.109		
	Total	5417.141	71			
b_2	Between Groups	3929.563	11	357.233	5046.253	.000
	Within Groups	4.248	60	.071		
	Total	3933.811	71			
b_5	Between Groups	2145.693	11	195.063	2028.107	.000
	Within Groups	5.771	60	.096		
	Total	2151.464	71			
b_10	Between Groups	641.624	11	58.329	198.320	.000
	Within Groups	17.647	60	.294		
	Total	659.271	71			
b_15	Between Groups	458.699	11	41.700	247.973	.000
	Within Groups	10.090	60	.168		
	Total	468.789	71			
b_20	Between Groups	705.350	11	64.123	102.825	.000
	Within Groups	37.417	60	.624		
	Total	742.766	71			

Post Hoc ANOVA Satu Arah

b_0

Duncan ^a		Subset for alpha = .05								
Kombinasi	N	1	2	3	4	5	6	7	8	9
1:1,0%	6	.2358								
1:1,1%	6	.4333								
1:2,1%	6		.8208							
1:1,0.5%	6		1.1150							
1:3,0.5%	6			1.5158						
1:3,1%	6				2.4958					
1:2,0%	6				2.7242					
1:2,0.5%	6					3.3325				
1:3,0%	6						3.7892			
Kontrol,0%	6							20.9008		
Kontrol,1%	6								21.3400	
Kontrol,0.5%	6									22.7900
Sig.		.304	.128	1.000	.236	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.

b_2

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
1:1,0%	6	2.0092							
1:1,0.5%	6		2.3542						
1:1,1%	6		2.3717						
1:3,0.5%	6			3.4075					
1:3,0%	6				4.0025				
1:2,1%	6					5.1075			
1:2,0.5%	6						5.4358		
1:3,1%	6						5.5550		
1:2,0%	6						5.5808		
Kontrol,1%	6							20.4533	
Kontrol,0.5%	6								20.9042
Kontrol,0%	6								21.0558
Sig.		1.000	.910	1.000	1.000	1.000	.379	1.000	.327

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

b_5

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
1:1,1%	6	5.4367								
1:1,0.5%	6		6.0100							
1:1,0%	6		6.1783							
1:3,0.5%	6			8.0358						
1:3,1%	6				9.2842					
1:3,0%	6				9.4217	9.4217				
1:2,0.5%	6					9.6625				
1:2,0%	6						10.3717			
1:2,1%	6							10.9425		
Kontrol,1%	6								19.8333	
Kontrol,0.5%	6									20.5125
Kontrol,0%	6									20.7592
Sig.		1.000	.351	1.000	.446	.184	1.000	1.000	1.000	.173

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

b_10

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
1:1,0%	6	11.3700							
1:1,0.5%	6		12.1400						
1:3,0.5%	6			15.7783					
1:2,0%	6				16.5700				
1:2,0.5%	6				16.9325	16.9325			
1:3,1%	6					17.2983	17.2983		
1:1,1%	6					17.4417	17.4417		
1:3,0%	6						17.7208		
1:2,1%	6							18.6417	
Kontrol,0.5%	6								20.8350
Kontrol,1%	6								20.9658
Kontrol,0%	6								21.0800
Sig.		1.000	1.000	1.000	.252	.130	.209	1.000	.466

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

b_15

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
1:1,0%	6	14.4783						
1:1,0.5%	6		17.1292					
Kontrol,0%	6			20.8842				
1:2,0%	6			20.9592	20.9592			
Kontrol,0.5%	6			21.3392	21.3392			
1:3,0.5%	6				21.4567			
1:3,1%	6					21.9508		
1:3,0%	6					21.9958		
Kontrol,1%	6					22.1217		
1:2,0.5%	6						22.6842	
1:1,1%	6						22.8150	
1:2,1%	6							24.0517
Sig.		1.000	1.000	.073	.050	.502	.583	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

b_20

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	9
1:1,0%	6	15.3617								
1:1,0.5%	6		19.4242							
Kontrol,0%	6			20.9717						
Kontrol,0.5%	6			21.1408						
1:2,0%	6				22.0617					
Kontrol,1%	6				22.7250					
1:1,1%	6					23.7750				
1:3,0.5%	6					24.1467	24.1467			
1:3,1%	6						24.9217	24.9217		
1:2,0.5%	6							25.6042	25.6042	
1:3,0%	6								25.9275	
1:2,1%	6									27.1917
Sig.		1.000	1.000	.712	.151	.418	.094	.140	.481	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.



- Lampiran 7. pH

Tests of Normality

one_way	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
pH							
	Kontrol, 0%, mixing	.175	6	.200*	.958	6	.804
	Kontrol, 0%, proofing	.249	6	.200*	.868	6	.218
	Kontrol, 0%, steaming	.293	6	.117	.822	6	.091
	Kontrol, 0,5%, mixing	.164	6	.200*	.960	6	.817
	Kontrol, 0,5%, proofing	.201	6	.200*	.936	6	.625
	Kontrol, 0,5%, steaming	.279	6	.160	.904	6	.400
	Kontrol, 1%, mixing	.312	6	.069	.836	6	.120
	Kontrol, 1%, proofing	.185	6	.200*	.974	6	.918
	Kontrol, 1%, steaming	.312	6	.069	.767	6	.029
	1:1, 0%, mixing	.177	6	.200*	.939	6	.648
	1:1, 0%, proofing	.215	6	.200*	.850	6	.158
	1:1, 0%, steaming	.227	6	.200*	.894	6	.340
	1:1, 0,5%, mixing	.238	6	.200*	.950	6	.737
	1:1, 0,5%, proofing	.270	6	.197	.892	6	.331
	1:1, 0,5%, steaming	.212	6	.200*	.933	6	.607
	1:1, 1%, mixing	.223	6	.200*	.858	6	.184
	1:1, 1%, proofing	.180	6	.200*	.947	6	.718
	1:1, 1%, steaming	.185	6	.200*	.974	6	.918
	1:2, 0%, mixing	.185	6	.200*	.964	6	.849
	1:2, 0%, proofing	.256	6	.200*	.851	6	.162
	1:2, 0%, steaming	.305	6	.086	.884	6	.287
	1:2, 0,5%, mixing	.258	6	.200*	.940	6	.659
	1:2, 0,5%, proofing	.167	6	.200*	.964	6	.847
	1:2, 0,5%, steaming	.315	6	.064	.797	6	.055
	1:2, 1%, mixing	.278	6	.164	.890	6	.318
	1:2, 1%, proofing	.190	6	.200*	.922	6	.517
	1:2, 1%, steaming	.199	6	.200*	.901	6	.378
	1:3, 0%, mixing	.183	6	.200*	.940	6	.660
	1:3, 0%, proofing	.238	6	.200*	.928	6	.566
	1:3, 0%, steaming	.209	6	.200*	.907	6	.415
	1:3, 0,5%, mixing	.161	6	.200*	.990	6	.988
	1:3, 0,5%, proofing	.161	6	.200*	.955	6	.782
	1:3, 0,5%, steaming	.145	6	.200*	.964	6	.847
	1:3, 1%, mixing	.205	6	.200*	.909	6	.429
	1:3, 0,5%, proofing	.196	6	.200*	.890	6	.316
	1:3, 1%, steaming	.214	6	.200*	.958	6	.804

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: pH

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	77.426 ^a	35	2.212	1591.496	.000
Intercept	7314.576	1	7314.576	5262285	.000
Bit_Merah	5.479	3	1.826	1314.022	.000
Baking_Powder	39.445	2	19.723	14188.885	.000
Proses	27.440	2	13.720	9870.681	.000
Bit_Merah * Baking_Powder	.871	6	.145	104.434	.000
Bit_Merah * Proses	2.123	6	.354	254.528	.000
Baking_Powder * Proses	1.810	4	.452	325.498	.000
Bit_Merah * Baking_Powder * Proses	.258	12	.021	15.450	.000
Error	.250	180	.001		
Total	7392.253	216			
Corrected Total	77.676	215			

a. R Squared = .997 (Adjusted R Squared = .996)

Post Hoc ANOVA Tiga Arah

pH

Duncan^{a,b}

Bit_Merah	N	Subset			
		1	2	3	4
1:1	54	5.6343			
1:2	54		5.7635		
1:3	54			5.8070	
Kontrol	54				6.0722
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .001.

a. Uses Harmonic Mean Sample Size = 54.000.

b. Alpha = .05.

pH

Duncan^{a,b}

Baking_Powder	N	Subset		
		1	2	3
0%	72	5.3068		
0,5%	72		5.7981	
1%	72			6.3529
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .001.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

pH

Duncan^{a,b}

Proses	N	Subset		
		1	2	3
Proofing	72	5.4131		
Mixing	72		5.7639	
Steaming	72			6.2808
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .001.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
pH_mixing	Between Groups	9.879	11	.898	11.622	.000
	Within Groups	4.636	60	.077		
	Total	14.515	71			
pH_proofing	Between Groups	10.311	11	.937	13.096	.000
	Within Groups	4.295	60	.072		
	Total	14.606	71			
pH_steaming	Between Groups	13.364	11	1.215	10.076	.000
	Within Groups	7.234	60	.121		
	Total	20.598	71			

Post Hoc ANOVA Satu Arah

pH_mixing

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
1:1,0.5%	6	5.2633				
1:1,0%	6	5.2717				
1:2,0%	6	5.4467	5.4467			
1:2,0.5%	6	5.5267	5.5267			
1:3,0%	6	5.5283	5.5283			
Kontrol,0%	6	5.5483	5.5483			
1:3,0.5%	6		5.6783	5.6783		
1:1,1%	6			5.9300	5.9300	
Kontrol,0.5%	6			6.0150	6.0150	6.0150
1:2,1%	6				6.2400	6.2400
1:3,1%	6				6.2433	6.2433
Kontrol,1%	6					6.3483
Sig.		.126	.206	.051	.079	.061

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

pH_proofing

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
1:2,0%	6	4.9883				
1:1,0%	6	4.9933				
1:1,0.5%	6	5.0117				
1:2,0.5%	6	5.1233	5.1233			
1:3,0.5%	6	5.1517	5.1517			
1:3,0%	6	5.1583	5.1583			
Kontrol,0%	6		5.3783	5.3783		
1:1,1%	6			5.5650	5.5650	
1:2,1%	6				5.7183	
1:3,1%	6				5.8100	
Kontrol,0.5%	6				5.8267	
Kontrol,1%	6					6.1467
Sig.		.345	.138	.232	.128	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

pH_steaming

Duncan^a

Kombinasi	N	Subset for alpha = .05				
		1	2	3	4	5
Kontrol,0%	6	5.6250				
1:2,0%	6	5.7617	5.7617			
1:3,0%	6	5.7800	5.7800			
1:1,0%	6	5.8417	5.8417			
1:3,0.5%	6		6.1333	6.1333		
1:2,0.5%	6		6.1817	6.1817		
1:1,0.5%	6			6.2800		
Kontrol,0.5%	6			6.4117	6.4117	
1:1,1%	6				6.7317	6.7317
1:3,1%	6				6.7367	6.7367
1:2,1%	6				6.8050	6.8050
Kontrol,1%	6					6.8750
Sig.		.332	.065	.212	.077	.522

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

- **Lampiran 8. Aktivitas Antioksidan**

Tests of Normality

one_way	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Antioksidan						
Kontrol, 0%, mixing	.195	6	.200*	.879	6	.264
Kontrol, 0%, proofing	.375	6	.009	.726	6	.011
Kontrol, 0%, steaming	.227	6	.200*	.877	6	.255
Kontrol, 0,5%, mixing	.220	6	.200*	.889	6	.315
Kontrol, 0,5%, proofing	.289	6	.127	.774	6	.034
Kontrol, 0,5%, steaming	.269	6	.200*	.908	6	.423
Kontrol, 1%, mixing	.203	6	.200*	.929	6	.571
Kontrol, 1%, proofing	.196	6	.200*	.962	6	.832
Kontrol, 1%, steaming	.228	6	.200*	.868	6	.217
1:1, 0%, mixing	.230	6	.200*	.839	6	.129
1:1, 0%, proofing	.247	6	.200*	.860	6	.190
1:1, 0%, steaming	.213	6	.200*	.933	6	.607
1:1, 0,5%, mixing	.241	6	.200*	.916	6	.477
1:1, 0,5%, proofing	.238	6	.200*	.905	6	.405
1:1, 0,5%, steaming	.135	6	.200*	.988	6	.985
1:1, 1%, mixing	.346	6	.024	.700	6	.006
1:1, 1%, proofing	.208	6	.200*	.894	6	.341
1:1, 1%, steaming	.269	6	.199	.864	6	.205
1:2, 0%, mixing	.226	6	.200*	.970	6	.895
1:2, 0%, proofing	.294	6	.115	.840	6	.131
1:2, 0%, steaming	.266	6	.200*	.856	6	.176
1:2, 0,5%, mixing	.335	6	.034	.819	6	.087
1:2, 0,5%, proofing	.312	6	.068	.758	6	.024
1:2, 0,5%, steaming	.167	6	.200*	.971	6	.898
1:2, 1%, mixing	.227	6	.200*	.859	6	.186
1:2, 1%, proofing	.287	6	.134	.842	6	.137
1:2, 1%, steaming	.240	6	.200*	.933	6	.602
1:3, 0%, mixing	.240	6	.200*	.916	6	.480
1:3, 0%, proofing	.245	6	.200*	.853	6	.166
1:3, 0%, steaming	.190	6	.200*	.882	6	.277
1:3, 0,5%, mixing	.149	6	.200*	.988	6	.985
1:3, 0,5%, proofing	.293	6	.117	.915	6	.473
1:3, 0,5%, steaming	.214	6	.200*	.914	6	.464
1:3, 1%, mixing	.159	6	.200*	.958	6	.801
1:3, 0,5%, proofing	.174	6	.200*	.967	6	.869
1:3, 1%, steaming	.186	6	.200*	.930	6	.577

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

a. Lilliefors Significance Correction

Analisa ANOVA Tiga Arah

Tests of Between-Subjects Effects

Dependent Variable: Antioksidan

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.566 ^a	35	.016	171.135	.000
Intercept	3.668	1	3.668	38786.343	.000
Bit_Merah	.539	3	.180	1900.842	.000
Baking_Powder	.002	2	.001	12.601	.000
Proses	.002	2	.001	11.442	.000
Bit_Merah * Baking_Powder	.009	6	.001	15.440	.000
Bit_Merah * Proses	.004	6	.001	7.309	.000
Baking_Powder * Proses	.007	4	.002	18.395	.000
Bit_Merah * Baking_Powder * Proses	.003	12	.000	2.419	.006
Error	.017	180	9.46E-005		
Total	4.252	216			
Corrected Total	.584	215			

a. R Squared = .971 (Adjusted R Squared = .965)

Post Hoc ANOVA Tiga Arah

Antioksidan

Duncan^{a,b}

Bit_Merah	N	Subset			
		1	2	3	4
Kontrol	54	.06569			
1:3	54		.11770		
1:2	54			.13243	
1:1	54				.20546
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 9.46E-005.

a. Uses Harmonic Mean Sample Size = 54.000.

b. Alpha = .05.

AntioksidanDuncan^{a,b}

Baking_Powder	N	Subset	
		1	2
0%	72	.12567	
0,5%	72		.13208
1%	72		.13321
Sig.		1.000	.489

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 9.46E-005.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

AntioksidanDuncan^{a,b}

Proses	N	Subset	
		1	2
Mixing	72	.12592	
Proofing	72		.13182
Steaming	72		.13322
Sig.		1.000	.388

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 9.46E-005.

a. Uses Harmonic Mean Sample Size = 72.000.

b. Alpha = .05.

Analisa ANOVA Satu Arah**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
AA_mixing	Between Groups	1593.708	11	144.883	281.874	.000
	Within Groups	30.840	60	.514		
	Total	1624.547	71			
AA_proofing	Between Groups	1901.618	11	172.874	102.254	.000
	Within Groups	101.439	60	1.691		
	Total	2003.057	71			
AA_steaming	Between Groups	2134.728	11	194.066	299.668	.000
	Within Groups	38.856	60	.648		
	Total	2173.584	71			

Post Hoc ANOVA Satu Arah

AA_mixing

Duncan^a

Kombinasi	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
Kontrol,0%	6	6.1633							
Kontrol,1%	6	6.7800							
Kontrol,0.5%	6	6.8400							
1:2,0%	6		10.0933						
1:3,0.5%	6			11.6067					
1:3,1%	6			11.8800	11.8800				
1:3,0%	6			12.4267	12.4267				
1:2,1%	6				12.7167				
1:2,0.5%	6					14.2667			
1:1,0%	6						17.5467		
1:1,0.5%	6							19.8267	
1:1,1%	6								20.9567
Sig.		.128	1.000	.065	.060	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

AA_proofing

Duncan^a

Kombinasi	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
Kontrol,0.5%	6	5.0200						
Kontrol,1%	6		6.8700					
Kontrol,0%	6		7.7800					
1:3,0.5%	6			10.5367				
1:3,1%	6			11.7883	11.7883			
1:3,0%	6				12.9600			
1:2,0%	6				13.2033			
1:2,0.5%	6				13.2433			
1:2,1%	6					14.8933		
1:1,0%	6						19.3133	
1:1,0.5%	6						20.5400	20.5400
1:1,1%	6							21.9933
Sig.		1.000	.230	.101	.081	1.000	.107	.058

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

AA_steaming

Duncan^a

Kombinasi	N	Subset for alpha = .05								
		1	2	3	4	5	6	7	8	
Kontrol,0%	6	5.9433								
Kontrol,1%	6	6.1967								
Kontrol,0.5%	6		7.6100							
1:3,1%	6			10.4017						
1:3,0%	6				12.0917					
1:3,0.5%	6				12.2150					
1:2,0%	6				12.6333					
1:2,1%	6					13.7400				
1:2,0.5%	6					14.2900				
1:1,0%	6						20.6167			
1:1,1%	6							21.5467		
1:1,0.5%	6								22.5000	
Sig.		.588	1.000	1.000	.278	.241	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 9. Korelasi Perlakuan dan Parameter

Correlations

		Bit	Baking powder	Steaming	Hardness	Volume	Springiness	L	a	b
Kendall's tau_ Bit	Correlation Coefficient	1.000	.000	.000	-.014	-.072*	.023	-.213**	.363**	-.167**
	Sig. (2-tailed)	.	1.000	1.000	.703	.045	.528	.000	.000	.000
	N	432	432	432	432	432	432	432	432	432
Baking powder	Correlation Coefficient	.000	1.000	.000	.101**	-.022	.074*	.129**	-.105**	.068
	Sig. (2-tailed)	1.000	.	1.000	.007	.560	.045	.001	.005	.065
	N	432	432	432	432	432	432	432	432	432
Steaming	Correlation Coefficient	.000	.000	1.000	.687**	.850**	.633**	.306**	-.467**	.611**
	Sig. (2-tailed)	1.000	1.000	.	.000	.000	.000	.000	.000	.000
	N	432	432	432	432	432	432	432	432	432
Hardness	Correlation Coefficient	-.014	.101**	.687**	1.000	.598**	.493**	.174**	-.311**	.429**
	Sig. (2-tailed)	.703	.007	.000	.	.000	.000	.000	.000	.000
	N	432	432	432	432	432	432	432	432	432
Volume	Correlation Coefficient	-.072*	-.022	.850**	.598**	1.000	.570**	.338**	-.482**	.511**
	Sig. (2-tailed)	.045	.560	.000	.000	.	.000	.000	.000	.000
	N	432	432	432	432	432	432	432	432	432
Springiness	Correlation Coefficient	.023	.074*	.633**	.493**	.570**	1.000	.320**	-.415**	.502**
	Sig. (2-tailed)	.528	.045	.000	.000	.000	.	.000	.000	.000
	N	432	432	432	432	432	432	432	432	432
L	Correlation Coefficient	-.213**	.129**	.306**	.174**	.338**	.320**	1.000	-.755**	.559**
	Sig. (2-tailed)	.000	.001	.000	.000	.000	.000	.	.000	.000
	N	432	432	432	432	432	432	432	432	432
a	Correlation Coefficient	.363**	-.105**	-.467**	-.311**	-.482**	-.415**	-.755**	1.000	-.615**
	Sig. (2-tailed)	.000	.005	.000	.000	.000	.000	.000	.	.000
	N	432	432	432	432	432	432	432	432	432
b	Correlation Coefficient	-.167**	.068	.611**	.429**	.511**	.502**	.559**	-.615**	1.000
	Sig. (2-tailed)	.000	.065	.000	.000	.000	.000	.000	.000	.
	N	432	432	432	432	432	432	432	432	432

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

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

Correlations

			Bit_Merah	Baking_Powder	Proses	pH	Antioksidan
Kendall's tau_b	Bit_Merah	Correlation Coefficient	1.000	.000	.000	-.101*	.057
		Sig. (2-tailed)	.	1.000	1.000	.049	.264
		N	216	216	216	216	216
	Baking_Powder	Correlation Coefficient	.000	1.000	.000	.562**	.040
		Sig. (2-tailed)	1.000	.	1.000	.000	.449
		N	216	216	216	216	216
	Proses	Correlation Coefficient	.000	.000	1.000	.234**	.054
		Sig. (2-tailed)	1.000	1.000	.	.000	.309
		N	216	216	216	216	216
	pH	Correlation Coefficient	-.101*	.562**	.234**	1.000	-.128**
		Sig. (2-tailed)	.049	.000	.000	.	.005
		N	216	216	216	216	216
	Antioksidan	Correlation Coefficient	.057	.040	.054	-.128**	1.000
		Sig. (2-tailed)	.264	.449	.309	.005	.
		N	216	216	216	216	216

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

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

