

LAMPIRAN

Lampiran 1. Langkah-Langkah Randomisasi Unit Penelitian dan Penentuan Desain Penelitian

Besar unit penelitian mempunyai peluang yang sama untuk mendapatkan perlakuan, maka dalam penempatan unit penelitian digunakan randomisasi atau pengacakan dengan langkah-langkah sebagai berikut :

- a. Memberi nomor urut pada semua penelitian , yaitu 1-12
- b. Menentukan batas nomor unit penelitian (491-789). Melakukan randomisasi di dalam axcel dengan menekan (=RANDBETWEEN (491-789))
- c. Menggunakan 3 digit sebanyak jumlah unit penelitian sebagaimana disajikan pada Tabel 5.
- d. Memberi rangking pada bilangan random yang diperoleh (Tabel 4)
- e. Dengan menggunakan prinsip permutasi sederhana, maka nomor rangking dapat dianggap mewakili nomor urut sesuai dengan jumlah unit penelitian. Dengan demikian taraf perlakuan P1 akan diulang 3 kali dan ditempatkan pada unit penelitian nomor
- f. Memasukkan unit penelitian dalam *layout*
- g. Urutan 1 ditempati oleh unit penelitian X_{11} , urutan 2 ditempati oleh unit penelitian X_{12} , urutan 3 ditempati oleh unit penelitian X_{13} , dan seterusnya sampai urutan 12 ditempati unit penelitian X_{43} .

1 491 1	2 569 5	3 619 9
4 505 2	5 597 6	6 635 10
7 509 3	8 600 7	9 739 11
10 562 4	11 617 8	12 789 12

Gambar 5 . Nomor Urut, Bilangan Random, Rangking

Tabel 6 . Penempatan Rangking dan Unit Penelitian

No	Bilangan Random	Rangking	Unit Penelitian
1	491	1	X ₃₃
2	505	4	X ₄₁
3	509	7	X ₃₂
4	562	10	X ₄₃
5	569	2	X ₂₁
6	597	5	X ₁₂
7	600	8	X ₂₂
8	617	11	X ₃₁
9	619	3	X ₂₃
10	635	6	X ₁₃
11	739	9	X ₄₂
12	789	12	X ₁₁

Lampiran 2. Hasil Analisis SPSS Kadar Air Kacang Merah

Descriptives

Air

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	14,3767	,16042	,09262	13,9782	14,7752	14,21
P2	3	17,9900	,04583	,02646	17,8762	18,1038	17,95
P3	3	4,2500	,08000	,04619	7,6013	7,9987	7,72
P4	3	7,8067	,06028	,03480	4,0969	4,3964	4,19
Total	12	11,1033	5,62685	1,62433	7,5282	14,6785	4,19

ANOVA

Air

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	348,200	3	116,067	12260,575	,000
Within Groups	,076	8	,009		
Total	348,276	11			

Post Hoc Tests

Homogeneous Subsets

Air

Duncan

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
P4	3	4,2467			
P3	3		7,8000		
P1	3			14,3767	
P2	3				17,9900
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 3. Hasil Analisis SPSS Kadar Abu Kacang Merah

Descriptives

Abu

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	4,4100	,04000	,02309	4,3106	4,5094	4,37
P2	3	4,1100	,04000	,02309	4,0106	4,2094	4,07
P3	3	5,4300	,04000	,02309	4,6506	4,8494	4,71
P4	3	4,7000	,07211	,04163	5,0509	5,4091	5,15
Total	12	4,6250	,43686	,12611	4,3474	4,9026	4,07

ANOVA

Abu

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,079	3	,693	277,240	,000
Within Groups	,020	8	,002		
Total	2,099	11			

Post Hoc Tests

Homogeneous Subsets

Abu

Duncan

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
P2	3	4,1100			
P1	3		4,4100		
P3	3			4,7500	
P4	3				5,2300
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 4. Hasil Analisis SPSS Kadar Protein Kacang Merah

Descriptives

Protein

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	18,9467	,06028	,03480	18,7969	19,0964	18,89
P2	3	15,7733	,03512	,02028	15,6861	15,8606	15,74
P3	3	22,7867	,04163	,02404	21,5932	21,8001	21,65
P4	3	21,5000	,11136	,06429	22,6934	23,2466	22,87
Total	12	19,8467	2,88849	,83384	18,0114	21,6819	15,74

ANOVA

Protein

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	91,739	3	30,580	6437,843	,000
Within Groups	,038	8	,005		
Total	91,777	11			

Post Hoc Tests

Homogeneous Subsets

Protein

Duncan

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
P2	3	15,7733			
P1	3		18,9467		
P3	3			21,6967	
P4	3				22,9700

Sig.		1,000	1,000	1,000	1,000
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Lampiran 5. Hasil Analisis SPSS Kadar Lemak Kacang Merah

Descriptives

Lemak

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	4,2133	,03512	,02028	4,1261	4,3006	4,18
P2	3	3,8933	,01528	,00882	3,8554	3,9313	3,88
P3	3	4,4033	,02082	,01202	4,3516	4,4550	4,38
P4	3	4,4867	,02517	,01453	4,4242	4,5492	4,46
Total	12	4,2492	,23918	,06905	4,0972	4,4011	3,88

ANOVA

Lemak

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,624	3	,208	328,539	,000
Within Groups	,005	8	,001		
Total	,629	11			

Post Hoc Tests

Homogeneous Subsets

Lemak

Duncan

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
P2	3	3,8933			
P1	3		4,2133		
P3	3			4,4033	

P4	3				4,4867
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

- b. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 6. Hasil Analisis SPSS Kadar Karbohidrat Kacang Merah

Descriptives

Karbohidrat

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	58,0533	,22745	,13132	57,4883	58,6183	57,80
P2	3	58,2333	,07767	,04485	58,0404	58,4263	58,17
P3	3	61,3500	,03606	,02082	61,2604	61,4396	61,31
P4	3	63,0533	,12897	,07446	62,7330	63,3737	62,91
Total	12	60,1725	2,21487	,63938	58,7652	61,5798	57,80

ANOVA

Karbohidrat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	53,811	3	17,937	947,791	,000
Within Groups	,151	8	,019		
Total	53,962	11			

Post Hoc Tests

Homogeneous Subsets

Karbohidrat

Duncan

Perlakuan	N	Subset for alpha = 0.05		
		1	2	3
P1	3	58,0533		
P2	3	58,2333		
P3	3		61,3500	
P4	3			63,0533

Sig.		,148	1,000	1,000
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Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 7. Hasil Analisis SPSS Energi Kacang Merah

Descriptives

energi

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	345,9200	,46293	,26727	344,7700	347,0700	345,49
P2	3	331,0633	,12662	,07311	330,7488	331,3779	330,92
P3	3	371,2967	1,14509	,66112	368,4521	374,1412	369,98
P4	3	385,0633	1,07151	,61864	382,4016	387,7251	384,31
Total	12	358,3358	22,04589	6,36410	344,3285	372,3431	330,92

ANOVA

energi

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5340,854	3	1780,285	2647,559	,000
Within Groups	5,379	8	,672		
Total	5346,233	11			

Post Hoc Tests

Homogeneous Subsets

energi

Duncan

perilaku	N	Subset for alpha = 0.05			
		1	2	3	4
P2	3	331,0633			
P1	3		345,9200		
P3	3			371,2967	
P4	3				385,0633
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 8. Hasil Analisis SPSS Serat Kacang Merah

Descriptives

Serat

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	3,1533	,03055	,01764	3,0774	3,2292	3,12
P2	3	2,9500	,06000	,03464	2,8010	3,0990	2,89
P3	3	3,9533	,05508	,03180	3,8165	4,0901	3,90
P4	3	4,1733	,02517	,01453	4,1108	4,2358	4,15
Total	12	3,5575	,54116	,15622	3,2137	3,9013	2,89

ANOVA

Serat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,205	3	1,068	521,142	,000
Within Groups	,016	8	,002		
Total	3,221	11			

Post Hoc Tests

Homogeneous Subsets

Serat

Duncan

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
P2	3	2,9500			
P1	3		3,1533		
P3	3			3,9533	
P4	3				4,1733
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 9. Hasil Analisis SPSS Antioksidan Kacang Merah

Descriptives

Antioksidan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
P1	3	134,2993	1,47881	,85379	130,6258	137,9729	133,19
P2	3	146,6537	1,83788	1,06110	142,0881	151,2192	144,78
P3	3	92,3917	1,04095	,60099	89,8058	94,9776	91,52
P4	3	84,0475	1,71971	,99288	79,7755	88,3195	82,37
Total	12	114,3481	27,87137	8,04577	96,6394	132,0567	82,37

ANOVA

Antioksidan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8525,734	3	2841,911	1183,429	,000
Within Groups	19,211	8	2,401		
Total	8544,945	11			

Post Hoc Tests

Homogeneous Subsets

Antioksidan

Duncan

Perlakuan	N	Subset for alpha = 0.05			
		1	2	3	4
P4	3	84,0475			
P3	3		92,3917		
P1	3			134,2993	
P2	3				146,6537
Sig.		1,000	1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 10. Hasil Uji Laboratorium


LABORATORIUM GIZI
DEPARTEMEN GIZI KESEHATAN
FAKULTAS KESEHATAN MASYARAKAT
UNIVERSITAS AIRLANGGA
SURABAYA
Kampus C, Jl. Mulyorejo Surabaya, 60115
Telp. 0315964808

No. Sampel : 230/Lab. Gizi/2023
Nama Sampel : Kacang Merah
Pengirim : Adira
Alamat : Poltekkes Malang
Tanggal diterima : 26 September 2023
Tanggal selesai : 2 Oktober 2023

Hasil

Parameter	Karbohidrat (%)	Protein (%)	Lemak (%)	Air (%)	Abu (%)	Serat (%)	IC50 (ppm)
P1.1	58.24	18.89	4.21	14.21	4.45	3.12	133.731
P1.2	57.80	19.01	4.25	14.53	4.41	3.18	133.185
P1.3	58.12	18.94	4.18	14.39	4.37	3.16	135.978
P2.1	58.17	15.81	3.89	17.98	4.15	2.95	148.449
P2.2	58.32	15.74	3.88	17.95	4.11	3.01	144.776
P2.3	58.21	15.77	3.91	18.04	4.07	2.89	146.736
P3.1	61.38	21.65	4.38	7.88	4.71	3.90	92.1148
P3.2	61.36	21.71	4.42	7.72	4.79	3.95	91.5172
P3.3	61.31	21.73	4.41	7.80	4.75	4.01	93.5431
P4.1	62.91	23.09	4.51	4.24	5.25	4.15	83.9729
P4.2	63.16	22.87	4.49	4.19	5.29	4.20	82.3663
P4.3	63.09	22.95	4.46	4.31	5.19	4.17	85.8033

Surabaya, 2 Oktober 2023

Teknis


Evy Arifianti, S.KM, M.Kes.
NIP. 197303282000032005

Lampiran 11. Surat Melakukan Penelitian di Laboratorium IBM Poltekkes Malang



SURAT KETERANGAN TELAH MELAKUKAN PENELITIAN

Nomor : 21/IX/2023/Penelitian/IBM


Yang bertandatangan di bawah ini, Penanggungjawab Laboratorium Jurusan Gizi menerangkan bahwa :

Nama : Adira Trista Maya
NIM : P17111193054
Prodi / Jurusan : STR Gizi / Gizi
Universitas : Poltekkes Kemenkes Malang

Benar-benar telah melakukan penelitian di Laboratorium IBM/ITP pada hari dan tanggal Jumat, 22 September 2023 guna penyusunan skripsi dengan judul 'Pengaruh Perlakuan Pendahuluan Kacang Merah terhadap Kandungan Gizi, Serat, dan Antioksidan sebagai Bahan Substitusi bagi Penderita Penyakit Tidak Menular (PTM)'.

Surat keterangan ini dibuat agar dapat dipergunakan sebagaimana mestinya.

Mengetahui,
Penanggungjawab Lab Jurusan Gizi


Dr. Nur Rahman, S.TP., MP
NIP 196509131989031003

Malang, 26 September 2023
PLP Lab IBM/ITP


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