

7. LAMPIRAN

Lampiran 1. Analisa Ddata *Soft Cookies* (Uji Normalitas)

Tests of Normality							
	Kode	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Tekstur	R1	,167	6	,200*	,958	6	,801
	R2	,199	6	,200*	,902	6	,384
	Kontrol	,270	6	,196	,862	6	,198
	R3	,195	6	,200*	,905	6	,407
	R4	,145	6	,200*	,977	6	,936
Air	R1	,264	6	,200*	,877	6	,256
	R2	,246	6	,200*	,817	6	,084
	Kontrol	,243	6	,200*	,885	6	,294
	R3	,227	6	,200*	,814	6	,079
	R4	,253	6	,200*	,906	6	,410
Abu	R1	,211	6	,200*	,869	6	,224
	R2	,286	6	,136	,789	6	,047
	Kontrol	,262	6	,200*	,888	6	,307
	R3	,250	6	,200*	,807	6	,067
	R4	,258	6	,200*	,820	6	,087
Protein	R1	,214	6	,200*	,910	6	,440
	R2	,180	6	,200*	,978	6	,943
	Kontrol	,167	6	,200*	,958	6	,801
	R3	,196	6	,200*	,890	6	,316
	R4	,207	6	,200*	,961	6	,826

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

a. Lilliefors Significance Correction

Tests of Normality

	Kode	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Lemak	R1	,195	6	,200 [*]	,900	6	,372
	R2	,252	6	,200 [*]	,888	6	,309
	Kontrol	,262	6	,200 [*]	,868	6	,219
	R3	,309	6	,075	,846	6	,146
	R4	,181	6	,200 [*]	,915	6	,472
Karbohidrat	R1	,158	6	,200 [*]	,962	6	,835
	R2	,273	6	,184	,896	6	,351
	Kontrol	,283	6	,145	,912	6	,451
	R3	,251	6	,200 [*]	,917	6	,484
	R4	,231	6	,200 [*]	,932	6	,597
Kalsium	R1	,188	6	,200 [*]	,951	6	,746
	R2	,310	6	,073	,789	6	,047
	Kontrol	,155	6	,200 [*]	,987	6	,980
	R3	,248	6	,200 [*]	,891	6	,322
	R4	,136	6	,200 [*]	,995	6	,998
Zat_besi	R1	,206	6	,200 [*]	,963	6	,845
	R2	,219	6	,200 [*]	,872	6	,234
	Kontrol	,260	6	,200 [*]	,857	6	,179
	R3	,225	6	,200 [*]	,886	6	,299
	R4	,225	6	,200 [*]	,925	6	,542
Kalori	R1	,230	6	,200 [*]	,913	6	,454
	R2	,337	6	,032	,817	6	,083
	Kontrol	,276	6	,170	,839	6	,128
	R3	,334	6	,035	,792	6	,050
	R4	,179	6	,200 [*]	,932	6	,594

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

a. Lilliefors Significance Correction

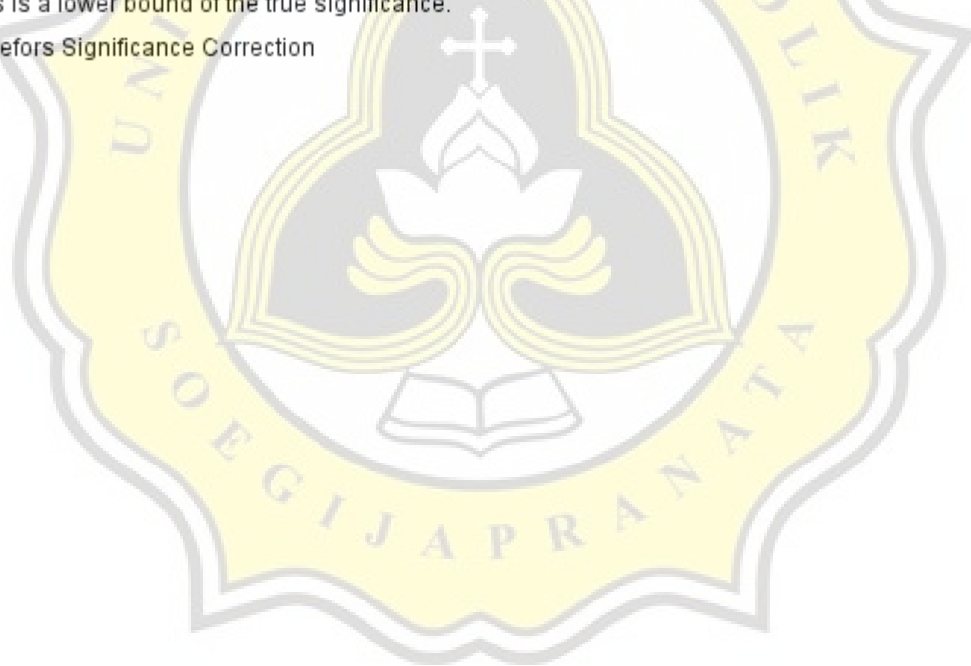
Lampiran 2. Transformasi Data Kadar Abu dan Kalsium

Tests of Normality

	Kode	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Abu	R1	,217	5	,200 [*]	,861	5	,233
	R2	,293	6	,117	,798	6	,057
	Kontrol	,199	6	,200 [*]	,947	6	,715
	R3	,221	6	,200 [*]	,892	6	,328
	R4	,189	6	,200 [*]	,952	6	,757
Kalsium	R1	,155	5	,200 [*]	,980	5	,933
	R2	,308	6	,079	,817	6	,083
	Kontrol	,151	6	,200 [*]	,988	6	,982
	R3	,243	6	,200 [*]	,892	6	,328
	R4	,140	6	,200 [*]	,993	6	,995

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

a. Lilliefors Significance Correction



Lampiran 3. Uji Anova dan Duncan

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Tekstur	Between Groups	67,935	4	16,984	14,170	,000
	Within Groups	29,965	25	1,199		
	Total	97,899	29			
Air	Between Groups	9,506	4	2,377	1,514	,228
	Within Groups	39,250	25	1,570		
	Total	48,756	29			
Abu	Between Groups	,362	4	,091	1,259	,312
	Within Groups	1,799	25	,072		
	Total	2,161	29			
Protein	Between Groups	45,469	4	11,367	2,103	,110
	Within Groups	135,123	25	5,405		
	Total	180,592	29			
Lemak	Between Groups	3,393	4	,848	,068	,991
	Within Groups	311,157	25	12,446		
	Total	314,550	29			
Karbohidrat	Between Groups	48,597	4	12,149	1,058	,398
	Within Groups	287,213	25	11,489		
	Total	335,810	29			
Kalsium	Between Groups	118,375	4	29,594	12,482	,000
	Within Groups	56,900	24	2,371		
	Total	175,274	28			
Zat_besi	Between Groups	4,211	4	1,053	40,973	,000
	Within Groups	,642	25	,026		
	Total	4,854	29			
Kalori	Between Groups	224,762	4	56,190	,229	,919
	Within Groups	6129,694	25	245,188		
	Total	6354,456	29			

Tekstur

Duncan^a

Kode	N	Subset for alpha = 0.05	
		1	2
R3	6	8,3073	
R4	6	8,4311	
R2	6		11,0603
R1	6		11,4430
Kontrol	6		11,7252
Sig.		,846	,331

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Air

Duncan^a

Kode	N	Subset for alpha = 0.05	
		1	2
Kontrol	6	8,9400	
R3	6	9,6967	9,6967
R1	6	9,9750	9,9750
R2	6	10,0660	10,0660
R4	6		10,6700
Sig.		,166	,230

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

AbuDuncan^a

Kode	N	Subset for alpha = 0.05	
		1	
Kontrol	6	,4120	
R3	6	,4328	
R4	6	,4358	
R2	6	,6352	
R1	6	,6644	
Sig.		,156	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

ProteinDuncan^a

Kode	N	Subset for alpha = 0.05	
		1	2
R4	6	5,3752	
R2	6	7,1535	7,1535
Kontrol	6	7,2773	7,2773
R3	6	7,9943	7,9943
R1	6		9,1463
Sig.		,085	,186

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

LemakDuncan^a

Kode	N	Subset for alpha = 0.05	
		1	
Kontrol	6	24,2817	
R4	6	24,4700	
R2	6	24,5750	
R1	6	24,7683	
R3	6	25,2667	
Sig.		,670	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

KarbohidratDuncan^a

Kode	N	Subset for alpha = 0.05	
		1	
R1	6	54,7583	
R3	6	55,4933	
R2	6	56,7850	
R4	6	57,8750	
Kontrol	6	57,9517	
Sig.		,156	

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

KalsiumDuncan^{a,b}

Kode	N	Subset for alpha = 0.05		
		1	2	3
R1	5	4,6195		
Kontrol	6		8,6441	
R2	6		8,7373	
R3	6		9,6884	9,6884
R4	6			10,9096
Sig.		1,000	,288	,191

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5,769.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Zat_besiDuncan^a

Kode	N	Subset for alpha = 0.05			
		1	2	3	4
R4	6	1,7167			
Kontrol	6		2,2917		
R3	6		2,4533	2,4533	
R2	6			2,6083	
R1	6				2,8233
Sig.		1,000	,093	,106	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6,000.

Kalori

Duncan^a

Kode	N	Subset for alpha = 0.05
		1
R4	6	473,2300
R2	6	476,9250
R1	6	478,5350
Kontrol	6	479,4550
R3	6	481,3467
Sig.		,431

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean
Sample Size = 6,000.

Lampiran 4. Uji Korelasi

		Correlations									
		Tekstur	Air	Abu	Protein	Lemak	Karbohidrat	Kalsium	Zat_besi	Kalori	
Tekstur	Pearson Correlation	1	-.281	,107	,422 [*]	-.120	-.086	-.487 ^{**}	,407 [*]	-.034	
	Sig. (2-tailed)		,133	,574	,020	,528	,653	,007	,026	,858	
	N	30	30	30	30	30	30	29	30	30	
Air	Pearson Correlation	-.281	1	,517 ^{**}	-.452 [*]	,556 ^{**}	-.508 ^{**}	-.134	,011	,341	
	Sig. (2-tailed)	,133		,003	,012	,001	,004	,489	,954	,065	
	N	30	30	30	30	30	30	29	30	30	
Abu	Pearson Correlation	,107	,517 ^{**}	1	-.211	,506 ^{**}	-.417 [*]	-.490 ^{**}	,478 ^{**}	,486 ^{**}	
	Sig. (2-tailed)	,574	,003		,263	,004	,022	,007	,008	,006	
	N	30	30	30	30	30	30	29	30	30	
Protein	Pearson Correlation	,422 [*]	-.452 [*]	-.211	1	-.504 ^{**}	-.098	-.293	,294	-.425 [*]	
	Sig. (2-tailed)	,020	,012	,263		,005	,605	,123	,114	,019	
	N	30	30	30	30	30	30	29	30	30	
Lemak	Pearson Correlation	-.120	,556 ^{**}	,506 ^{**}	-.504 ^{**}	1	-.768 ^{**}	-.205	,227	,957 ^{**}	
	Sig. (2-tailed)	,528	,001	,004	,005		,000	,287	,228	,000	
	N	30	30	30	30	30	30	29	30	30	
Karbohidrat	Pearson Correlation	-.086	-.508 ^{**}	-.417 [*]	-.098	-.768 ^{**}	1	,367	-.378 [*]	-.684 ^{**}	
	Sig. (2-tailed)	,653	,004	,022	,605	,000		,050	,039	,000	
	N	30	30	30	30	30	30	29	30	30	
Kalsium	Pearson Correlation	-.487 ^{**}	-.134	-.490 ^{**}	-.293	-.205	,367	1	-.601 ^{**}	-.249	
	Sig. (2-tailed)	,007	,489	,007	,123	,287	,050		,001	,193	
	N	29	29	29	29	29	29	29	29	29	
Zat_besi	Pearson Correlation	,407 [*]	,011	,478 ^{**}	,294	,227	-.378 [*]	-.601 ^{**}	1	,304	
	Sig. (2-tailed)	,026	,954	,008	,114	,228	,039	,001		,102	
	N	30	30	30	30	30	30	29	30	30	
Kalori	Pearson Correlation	-.034	,341	,486 ^{**}	-.425 [*]	,957 ^{**}	-.684 ^{**}	-.249	,304	1	
	Sig. (2-tailed)	,858	,065	,006	,019	,000	,000	,193	,102		
	N	30	30	30	30	30	30	29	30	30	

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

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

Lampiran 5. Hasil Uji Tepung Sukun dan Tepung Ampas Tahu

Hasil berdasarkan uji di Lab MIPA UNNES

Uji kalsium tepung sukun dan tepung ampas tahu

Seq. No.	8	AS Loc:	Date:	12/3/2019			
Sample ID:	S						
Analyte	Corr. Absorbance	Conc (Calib)	Std. Dev.	Conc (Sample)	Std. Dev.	%RSD:	Time
Ca 422.67	0.0407	6.165	mg/L	6.165	mg/L		11:49:13AM
	0.0402	6.078	mg/L	6.078	mg/L		11:49:18AM
	0.0396	5.990	mg/L	5.990	mg/L		11:49:22AM
Mean:	0.0402	6.077	0.0874 mg/L	6.077	0.0874 mg/L	1.4386	

Seq. No.	6	AS Loc:	Date:	12/3/2019			
Sample ID:	A						
Analyte	Corr. Absorbance	Conc (Calib)	Std. Dev.	Conc (Sample)	Std. Dev.	%RSD:	Time
Ca 422.67	0.0439	6.685	mg/L	6.685	mg/L		11:48:47AM
	0.0435	6.610	mg/L	6.610	mg/L		11:48:51AM
	0.0419	6.354	mg/L	6.354	mg/L		11:48:56AM
Mean:	0.0431	6.549	0.1736 mg/L	6.549	0.1736 mg/L	2.6511	

AAS00321112019/R03122019/TS/Ca		
SampleID	Analyte	Mean
Blanko	Ca 422.67	
Standard 2	Ca 422.67	[2] mg/L
Standard 3	Ca 422.67	[3] mg/L
Standard 4	Ca 422.67	[4] mg/L
Standard 5	Ca 422.67	[5] mg/L
A	Ca 422.67	6.549 mg/L
S	Ca 422.67	6.077 mg/L

PENGECERAN:
100X=A
10X=S

Uji zat besi tepung sukun dan tepung ampas tahu

Seq. No.	AS Loc:	Date:					
7		12/3/2019					
Sample ID:	S						
Analyte	Corr. Absorbance	Conc (Calib)	Std. Dev.	Conc (Sample)	Std. Dev.	%RSD:	Time
Fe 248.33	0.0555	1.779	mg/L	1.779	mg/L		12:06:24PM
	0.0503	1.611	mg/L	1.611	mg/L		12:06:29PM
	0.0493	1.579	mg/L	1.579	mg/L		12:06:33PM
Mean:	0.0517	1.656	0.1073 mg/L	1.656	0.1073 mg/L	6.4788	

Seq. No.	AS Loc:	Date:					
6		12/3/2019					
Sample ID:	A						
Analyte	Corr. Absorbance	Conc (Calib)	Std. Dev.	Conc (Sample)	Std. Dev.	%RSD:	Time
Fe 248.33	0.1027	3.289	mg/L	3.289	mg/L		12:12:21PM
	0.1021	3.271	mg/L	3.271	mg/L		12:12:25PM
	0.1029	3.298	mg/L	3.298	mg/L		12:12:30PM
Mean:	0.1026	3.286	0.0138 mg/L	3.286	0.0138 mg/L	0.4214	

SampleID	Analyte	Mean
blanko	Fe 248.33	
Standard 2	Fe 248.33	[1] mg/L
Standard 3	Fe 248.33	[2] mg/L
Standard 5	Fe 248.33	[4] mg/L
Standard 6	Fe 248.33	[6] mg/L
S	Fe 248.33	1.656 mg/L
A	Fe 248.33	3.286 mg/L

ALL PENGECERAN 10X

LAB. MIPA UNNES
Elements Down, portrait Standar

Keterangan:

S = Tepung sukun

A = Tepung Ampas Tahu

Lampiran 6. Perhitungan Kadar Zat Gizi dan Persentase AKG Per Takaran Saji

Rumus kandungan gizi *soft cookies* per takaran saji 1 keping (35 gram)

$$\text{Kandungan gizi (per takaran saji)} = \frac{\text{Takaran saji (g)}}{100 \text{ g}} \times \text{Nilai zat gizi produk sesuai hasil analisa}$$

Sumber : Pedoman Implementasi Peraturan di Bidang Pangan Olahan Tertentu (BPOM, 2019).

Rumus persentase AKG *soft cookies* per takaran saji 1 keping (35 gram)

$$\text{Persentase AKG (per takaran saji)} = \frac{\text{Nilai zat gizi per takaran saji}}{\text{ALG zat gizi (*)}} \times 100\%$$

Keterangan: * ALG yang digunakan adalah ALG untuk kelompok umum karena produk diperuntukkan kelompok umum

Sumber : Pedoman Implementasi Peraturan di Bidang Pangan Olahan Tertentu (BPOM, 2019).

$$\begin{aligned} \text{Energi total} &= \frac{35 \text{ g}}{100 \text{ g}} \times 478,54 \text{ kkal} = 167,489 \text{ kkal} \\ &= 168 \text{ kkal per takaran saji (pembulatan)} \end{aligned}$$

$$\begin{aligned} \text{Karbohidrat} &= \frac{35 \text{ g}}{100 \text{ g}} \times 54,76 \text{ g} = 19,166 \text{ g} & \text{Protein} &= \frac{35 \text{ g}}{100 \text{ g}} \times 9,15 \text{ g} = 3,2025 \text{ g} \\ &= 20 \text{ g per takaran saji (pembulatan)} & &= 3 \text{ g} \end{aligned}$$

$$\begin{aligned} \% \text{ AKG Karbohidrat} &= \frac{19,166 \text{ g}}{5,90} \times 100\% = 5,90\% & \% \text{ AKG Protein} &= \frac{3,2025 \text{ g}}{5,34} \times 100\% = 5,34\% \\ &= 6\% \text{ per takaran saji (pembulatan)} & &= 5\% \text{ per takaran saji} \end{aligned}$$

$$\begin{aligned} \text{Lemak} &= \frac{35 \text{ g}}{100 \text{ g}} \times 24,77 \text{ g} = 8,67 \text{ g} & \text{Zat Besi} &= \frac{35 \text{ g}}{100 \text{ g}} \times 278,92 \text{ mg} \\ &= 9 \text{ g per takaran saji (pembulatan)} & &= 0,99 \text{ mg per takaran saji} \end{aligned}$$

$$\begin{aligned} \% \text{ AKG Lemak} &= \frac{8,67 \text{ g}}{67} \times 100\% = 12,94\% & \% \text{ AKG Zat Besi} &= \frac{0,99 \text{ mg}}{22} \times 100\% \\ &= 13\% \text{ per takaran saji (pembulatan)} & &= 4,5\% \text{ per takaran saji} \end{aligned}$$

$$\text{Kalsium} = \frac{35 \text{ g}}{100 \text{ g}} \times 278,92 \text{ mg} = 97,62 \text{ mg per takaran saji}$$

$$\begin{aligned} \% \text{ AKG Kalsium} &= \frac{97,62 \text{ mg}}{1100} \times 100\% = 8,87\% \\ &= 9\% \text{ per takaran saji (pembulatan)} \end{aligned}$$

Lampiran 7. Rumus Persyaratan Klaim

Persyaratan klaim produk tidak boleh kurang dari hasil perhitungan dibawah ini:

Rumus Persyaratan Klaim (*) = Nilai persentase ALG zat gizi x Nilai ALG zat gizi

Sumber : Pedoman Implementasi Peraturan di Bidang Pangan Olahan Tertentu (BPOM, 2019).

Klaim “Sumber / Mengandung Protein” = $20\% \times 60(**) = 12 \text{ g} / 100 \text{ g}$ (produk padat)

Klaim “Tinggi / Kaya Protein” = $35\% \times 60(**) = 21 \text{ g} / 100 \text{ g}$ (produk padat)

Klaim “Sumber / Mengandung Kalsium” = $15\% \times 1100(**) = 165 \text{ mg} / 100 \text{ g}$ (produk padat)

Klaim “Tinggi / Kaya Kalsium” = $2 \times 165 \text{ mg} = 330 \text{ mg} / 100 \text{ g}$ (produk padat)

Klaim “Sumber / Mengandung Zat Besi” = $15\% \times 22(**) = 3,3 \text{ mg} / 100 \text{ g}$ (produk padat)

Klaim “Tinggi / Kaya Zat Besi” = $2 \times 3,3 \text{ mg} = 6,6 \text{ mg} / 100 \text{ g}$ (produk padat)

Keterangan:

(*) Persyaratan ini dapat dilihat pada Peraturan Kepala Badan POM tentang Klaim

(**) Nilai ALG zat gizi dapat dilihat pada Peraturan Kepala Badan POM tentang Acuan Label Gizi. Pada kasus ini nilai ALG dilihat pada kategori “umum”

Lampiran 8. Hasil *Plagscan*

Similarity Report	
<p>PAPER NAME CekPlagiasi_LaporanTugasAkhir_Debby N15I20005.docx</p>	
<p>WORD COUNT 11183 Words</p>	<p>CHARACTER COUNT 66662 Characters</p>
<p>PAGE COUNT 35 Pages</p>	<p>FILE SIZE 89.7KB</p>
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Summary	