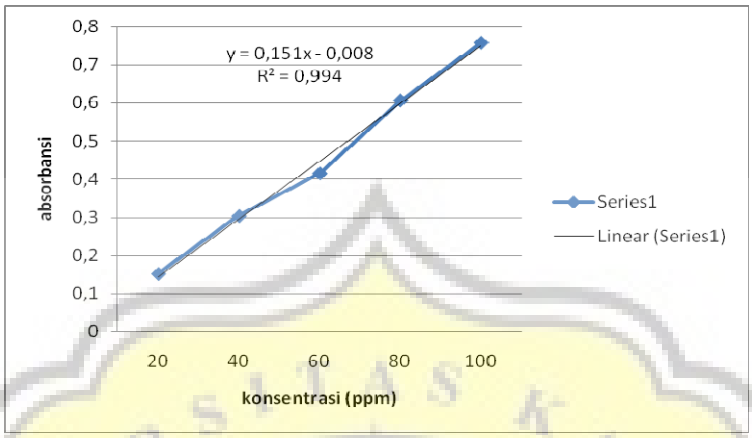
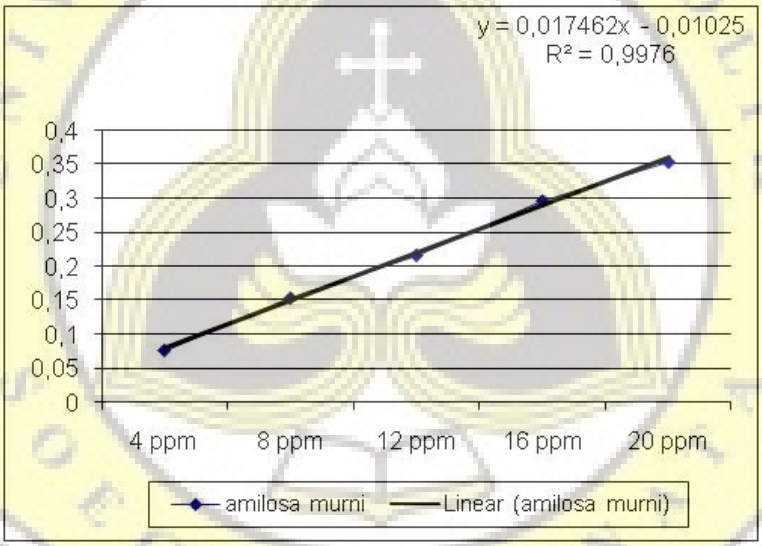
7. LAMPIRAN

7.1. Kurva Standar



Gambar 25. Kurva Standar Vitamin A



Gambar 26. Kurva Standar Amilosa

7.2. Lampiran 1. SNI Bihun Instan

Standart Mutu Bihun Instan Menurut SNI 01-3742-1995

No	Uraian	Satuan	Persyaratan
1.	Keadaan :		
	1.1. bau		Normal
	1.2. rasa		Normal
	1.3. warna		Normal
2.	Benda-benda asing		Tidak boleh ada
3.	Keutuhan,%,b/b		Min. 90
4.	Uji Kematangan		
	(bihun : air = 1:5) b/b	Menit	Maks. 3
5.	Air,%, b/b		Maks.11
6.	Abu tanpa garam,%, b/b		Maks. 2
7.	Protein (Nx6.25), %, b/b		Min. 6
8.	Derajat asam, mg KOH/100g contoh		Maks. 3
9.	Bahan tambahan makanan		Sesuai SNI. 0222-M dan peraturan Men.Kes.No.722/Menkes/Per/IX/88
10.	Cemaran Logam :		
	10.1. Timbal (Pb), mg/kg		Maks. 1.0
	10.2. Tembaga (Cu), mg/kg		Maks. 10.0
	10.3. Seng (Zn), mg/kg		Maks. 40.0
	10.4 Raksa (Hg), mg/kg		Maks. 0.05
11.	Arsen (As), mg/kg		Maks. 0.5
12.	Cemaran Mikroba:	Koloni/g	Maks. 1.0×10^6
	12.1. Angka lempeng Total	APM/g	<3
	12.2. E. Coli	Koloni/g	Maks. 1.0×10^4
	12.3. Kapang		

Sumber : SNI 01-3742-1995, Pusat Standarisasi Industri Departemen Perindustrian.

7.3. Lampiran 2. Scoresheet Uji Penerimaan Kwetiau Ubi Jalar Ungu

Nama : Tanggal
Sampel : kwetiau
Atribut :

Dihadapan Anda terdapat 8 sampel kwetiau. Amatilah sampel berurutan dari kiri ke kanan. Setelah mengamati sampel pertama, Anda boleh mengulang sesering yang Anda perlukan. Berilah skor pada kode sampel pertama (diperbolehkan memberi skor yang sama) dan jangan membandingkan antar sampel.

Kode sampel	Score

Keterangan :
9 = sungguh sangat dapat diterima sekali
8 = sangat dapat diterima sekali
7 = sangat dapat diterima
6 = dapat diterima
5 = netral
4 = tidak dapat diterima
3 = sangat tidak dapat
2 = sangat tidak dapat
1 = sungguh sangat tidak

Komentar
.....
.....
.....

-Terima Kasih –

7.4. Analisa Normalitas Kwetiau Kering Ubi Jalar Ungu

UJI NORMALITAS TEPUNG UBI JALAR UNGU

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KH	,183	6	,200*	,915	6	,468
k_air	,184	6	,200*	,964	6	,853
abu	,268	6	,200*	,882	6	,280
protein	,184	6	,200*	,968	6	,876
lemak	,213	6	,200*	,960	6	,820
serat_kasar	,171	6	,200*	,928	6	,563
vit_A	,279	6	,158	,852	6	,163

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

a. Lilliefors Significance Correction

UJI NORMALITAS KIMIA KWETIAU UBI JALAR UNGU

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	konsentrasi	Statistic	df	Sig.	Statistic	df	Sig.
kadar_air	0% ubi dehum	,157	6	,200*	,986	6	,978
	80% ubi dehum	,167	6	,200*	,926	6	,551
	90% ubi dehum	,159	6	,200*	,985	6	,974
	100% ubi dehum	,244	6	,200*	,879	6	,266
	0% ubi std	,228	6	,200*	,919	6	,500
	80% ubi std	,306	6	,082	,770	6	,031
	90% ubi std	,200	6	,200*	,941	6	,669
	100% ubi std	,224	6	,200*	,912	6	,453

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

a. Lilliefors Significance Correction

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	konsentrasi	Statistic	df	Sig.	Statistic	df	Sig.
k_abu	0% ubi dehum	,265	6	,200*	,828	6	,104
	80% ubi dehum	,187	6	,200*	,897	6	,356
	90% ubi dehum	,246	6	,200*	,912	6	,450
	100% ubi dehum	,188	6	,200*	,935	6	,618
	0% ubi std	,221	6	,200*	,894	6	,342
	80% ubi std	,318	6	,058	,824	6	,096
	90% ubi std	,295	6	,111	,760	6	,025
	100% ubi std	,194	6	,200*	,918	6	,494

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

a. Lilliefors Significance Correction

Tests of Normality

	konsentrasi	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
protein	0% ubi dehum	,285	6	,139	,829	6	,104
	80% ubi dehum	,162	6	,200*	,975	6	,923
	90% ubi dehum	,211	6	,200*	,924	6	,532
	100% ubi dehum	,178	6	,200*	,971	6	,902
	0% ubi std	,189	6	,200*	,920	6	,508
	80% ubi std	,181	6	,200*	,922	6	,519
	90% ubi std	,272	6	,187	,849	6	,156
	100% ubi std	,227	6	,200*	,897	6	,357

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

a. Lilliefors Significance Correction

Tests of Normality

	konsentrasi	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
lemak	0% ubi dehum	,216	6	,200*	,949	6	,735
	80% ubi dehum	,265	6	,200*	,846	6	,146
	90% ubi dehum	,216	6	,200*	,954	6	,770
	100% ubi dehum	,260	6	,200*	,895	6	,346
	0% ubi std	,277	6	,169	,884	6	,287
	80% ubi std	,224	6	,200*	,908	6	,420
	90% ubi std	,295	6	,113	,823	6	,093
	100% ubi std	,145	6	,200*	,987	6	,979

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

a. Lilliefors Significance Correction

Tests of Normality

	konsentrasi	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
serat	0% ubi dehum	,245	6	,200*	,930	6	,582
	80% ubi dehum	,162	6	,200*	,987	6	,981
	90% ubi dehum	,316	6	,062	,797	6	,055
	100% ubi dehum	,275	6	,174	,930	6	,579
	0% ubi std	,180	6	,200*	,922	6	,522
	80% ubi std	,218	6	,200*	,966	6	,868
	90% ubi std	,276	6	,170	,878	6	,258
	100% ubi std	,244	6	,200*	,862	6	,195

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

a. Lilliefors Significance Correction

Tests of Normality

	konsentrasi	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
karbo_bydiff	0% ubi dehum	,227	6	,200*	,933	6	,600
	80% ubi dehum	,175	6	,200*	,954	6	,771
	90% ubi dehum	,279	6	,158	,798	6	,057
	100% ubi dehum	,172	6	,200*	,973	6	,915
	0% ubi std	,230	6	,200*	,904	6	,396
	80% ubi std	,241	6	,200*	,905	6	,406
	90% ubi std	,217	6	,200*	,888	6	,307
	100% ubi std	,236	6	,200*	,911	6	,441

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

a. Lilliefors Significance Correction

Tests of Normality

	konsentrasi	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
vitaminA_si	0% ubi dehum	,176	6	,200*	,947	6	,714
	80% ubi dehum	,149	6	,200*	,960	6	,822
	90% ubi dehum	,317	6	,060	,804	6	,063
	100% ubi dehum	,208	6	,200*	,948	6	,725
	0% ubi std	,136	6	,200*	,958	6	,807
	80% ubi std	,227	6	,200*	,849	6	,156
	90% ubi std	,174	6	,200*	,954	6	,772
	100% ubi std	,227	6	,200*	,887	6	,301

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

a. Lilliefors Significance Correction

UJI NORMALITAS FISIK

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	konsentrasi	Statistic	df	Sig.	Statistic	df	Sig.
kelentingan	0% ubi dehum	,189	6	,200*	,903	6	,389
	80% ubi dehum	,212	6	,200*	,876	6	,249
	90% ubi dehum	,221	6	,200*	,954	6	,769
	100% ubi dehum	,163	6	,200*	,955	6	,777
	0% ubi std	,221	6	,200*	,916	6	,475
	80% ubi std	,197	6	,200*	,973	6	,911
	90% ubi std	,209	6	,200*	,920	6	,505
	100% ubi std	,178	6	,200*	,954	6	,772

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

a. Lilliefors Significance Correction

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	konsentrasi	Statistic	df	Sig.	Statistic	df	Sig.
kekenyalan	0% ubi dehum	,164	6	,200*	,984	6	,971
	80% ubi dehum	,252	6	,200*	,917	6	,482
	90% ui dehum	,195	6	,200*	,920	6	,506
	100% ubi dehum	,324	6	,048	,840	6	,130
	0% ubi std	,153	6	,200*	,987	6	,980
	80% ubi std	,197	6	,200*	,934	6	,615
	90% ubi std	,132	6	,200*	,979	6	,945
	100% ubi std	,149	6	,200*	,952	6	,754

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

a. Lilliefors Significance Correction

7.5. Analisa dengan Uji anova 2 arah *Unequal Completely Randomized Design* dan SPSS versi 13.0

PENGUJIAN KIMIA

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: KADAR AIR

Source	SS	df	MS	F	P
Main Effects					
kons	11.27848722	3	3.7594957402	20.808149089	.0000 ***
pgrg	1.5688746353	1	1.5688746353	8.6834457519	.0053 **
Interaction					
kons x pgrg	9.4961649424	3	3.1653883141	17.519868759	.0000 ***
Error	7.226968096	40	0.1806742024		
Total	29.570494894	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.1806742024
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.3507155014

Rank	Trt#	Mean	n	Non-significant ranges
1	4	10.381387608	12	a
2	3	9.9656124886	12	b
3	2	9.8014531302	12	b
4	1	9.042071758	12	c

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.1806742024
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.2479933093

Rank	Trt#	Mean	n	Non-significant ranges
1	2 (STD)	9.9784208705	24	a
2	1 (CD)	9.616841622	24	b

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: Abu

Source	SS	df	MS	F	P
Main Effects					
kons	10.812686682	3	3.6042288939	799.93914503	.0000 ***
pgrg	0.2189599496	1	0.2189599496	48.596978718	.0000 ***
Interaction					
kons x pgrg	0.3122246613	3	0.1040748871	23.098859325	.0000 ***
Error	0.1802251542	40	0.0045056289		
Total	11.524096447	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.0045056289
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.0553840354

Rank	Trt#	Mean	n	Non-significant ranges
1	4	1.80944955	12	a
2	3	1.3755529046	12	b
3	2	0.9304836661	12	c
4	1	0.5433796286	12	d

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.0045056289
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.039162427

Rank	Trt#	Mean	n	Non-significant ranges
1	1	1.2322565411	24	a
2	2	1.0971763336	24	b

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: PROTEIN

Source	SS	df	MS	F	P
Main Effects					
kons	89.2801595	3	29.760053167	151.49380879	.0000 ***
pgrg	21.573845595	1	21.573845595	109.82184814	.0000 ***
Interaction					
kons x pgrg	2.7769918512	3	0.9256639504	4.7121003689	.0066 **
Error	7.8577608959	40	0.1964440224		
Total	121.48875784	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.1964440224
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.3657011262

Rank	Trt#	Mean	n	Non-significant ranges
1	1	6.9774110187	12	a
2	2	6.0845060458	12	b
3	3	4.8636469578	12	c
4	4	3.3450832215	12	d

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.1964440224
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.2585897462

Rank	Trt#	Mean	n	Non-significant ranges
1	1	5.988075949	24	a
2	2	4.6472476728	24	b

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: LEMAK

Source	SS	df	MS	F	P
Main Effects					
kons	26.355182768	3	8.7850609226	45.822194322	.0000 ***
pgrg	0.4916640503	1	0.4916640503	2.5644814365	.1172 ns
Interaction					
kons x pgrg	0.2093197635	3	0.0697732545	0.3639318674	.7794 ns
Error	7.6688260373	40	0.1917206509		
Total	34.724992619	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.1917206509
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.3612778503

Rank	Trt#	Mean	n	Non-significant ranges
1	4	6.0185103163	12	a
2	3	4.8608143931	12	b
3	2	4.5395978592	12	b
4	1	3.9930180424	12	c

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.1917206509
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.2554620179

Rank	Trt#	Mean	n	Non-significant ranges
1	1	4.9541928651	24	a
2	2	4.7517774403	24	a

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: SERAT KASAR

Source	SS	df	MS	F	P
Main Effects					
kons	173.66568824	3	57.888562745	490.14342297	.0000 ***
pgrg	3.7495868456	1	3.7495868456	31.747814146	.0000 ***
Interaction					
kons x pgrg	6.6892268953	3	2.2297422984	18.879265103	.0000 ***
Error	4.7242141816	40	0.1181053545		
Total	188.82871616	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.1181053545
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.2835578551

Rank	Trt#	Mean	n	Non-significant ranges
1	4	5.9404484741	12	a
2	3	4.2543213097	12	b
3	2	2.7367625148	12	c
4	1	0.782413462	12	d

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.1181053545
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.2005056822

Rank	Trt#	Mean	n	Non-significant ranges
1	2	3.7079795395	24	a
2	1	3.1489933407	24	b

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: VITAMIN A

Source	SS	df	MS	F	P
Main Effects					
kons	387868250.16	3	129289416.72	821.01127897	.0000 ***
pgrg	1227897.0096	1	1227897.0096	7.7973690334	.0080 **
Interaction					
kons x pgrg	1370840.8281	3	456946.9427	2.9016960813	.0466 *
Error	6299032.4265	40	157475.81066		
Total	396766020.42	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 157475.81066
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 327.42649193

Rank	Trt#	Mean	n	Non-significant ranges
1	4	7242.9683868	12	a
2	3	6806.5226993	12	b
3	2	5515.902411	12	c
4	1	122.90486951	12	d

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 157475.81066
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 231.52549278

Rank	Trt#	Mean	n	Non-significant ranges
1	1	5082.0157924	24	a
2	2	4762.1333909	24	b

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: KH *by different*

Source	SS	df	MS	F	P
Main Effects					
kons	6.6804797322	3	2.2268265774	3.5497003152	.0227 *
pgrg	16.612020382	1	16.612020382	26.480595563	.0000 ***
Interaction					
kons x pgrg	12.384683526	3	4.128227842	6.580652405	.0010 **
Error	25.093122007	40	0.6273280502		
Total	60.770305646	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.6273280502
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.6535130165

Rank	Trt#	Mean	n	Non-significant ranges
1	1	79.669522621	12	a
2	4	79.149964376	12	ab
3	3	79.133663076	12	ab
4	2	78.614464569	12	b

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.6273280502
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.4621034856

Rank	Trt#	Mean	n	Non-significant ranges
1	2	79.7301925	24	a
2	1	78.553614822	24	b

PENGUJIAN FISIK

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: KELENTINGAN

Source	SS	df	MS	F	P
Main Effects					
kons	3.1934619658	3	1.0644873219	69.051646743	.0000 ***
pgrg	1.18428E-06	1	1.18428E-06	7.682241E-05	.9931 ns
Interaction					
kons x pgrg	0.0277025752	3	0.0092341917	0.5990077402	.6194 ns
Error	0.616632548	40	0.0154158137		
Total	3.8377982733	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 0.0154158137
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.1024448463

Rank	Trt#	Mean	n	Non-significant ranges
1	1	1.5546184622	12	a
2	2	1.4560095934	12	a
3	3	1.3513890035	12	b
4	4	0.8819162987	12	c

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 0.0154158137
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.0724394455

Rank	Trt#	Mean	n	Non-significant ranges
1	1	1.3111404143	24	a
2	2	1.3108262646	24	a

TWO WAY ANOVA COMPLETELY RANDOMIZED
Variable: KEKENYALAN

Source	SS	df	MS	F	P
Main Effects					
kons	0.0737652397	3	0.0245884132	786.64328729	.0000 ***
pgrg	7.29432E-06	1	7.29432E-06	0.2333630687	.6317 ns
Interaction					
kons x pgrg	1.501337E-04	3	5.004457E-05	1.6010478862	.2043 ns
Error	0.0012502955	40	3.125739E-05		
Total	0.0751729632	47			

Duncan's Multiple Range Test
Factor: kons
Error mean square = 3.125739E-05
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.0046129975

Rank	Trt#	Mean	n	Non-significant ranges
1	1	0.1157297756	12	a
2	2	0.0570521578	12	b
3	3	0.0325827683	12	c
4	4	0.0107735103	12	d

Duncan's Multiple Range Test
Factor: pgrg
Error mean square = 3.125739E-05
Degrees of freedom = 40
Significance level = 5%
LSD .05 = 0.0032618818

Rank	Trt#	Mean	n	Non-significant ranges
1	1	0.0544243799	24	a
2	2	0.0536447261	24	a

PENGUJIAN SENSORIS

Test Statistics[a,b]

	warna	aroma	tekstur	rasa	ints_rasa	overall
Chi-Square	19,393	13,680	5,873	57,596	82,861	23,693
df	7	7	7	7	7	7
Asymp. Sig.	,007	,057	,555	,000	,000	,001

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan

UJI BEDA NYATA PARAMETER WARNA

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi CD	50	52,08	2604,00
	80% t ubi CD	50	48,92	2446,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1171,000
Wilcoxon W	2446,000
Z	-,559
Asymp. Sig. (2-tailed)	,576

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi CD	50	54,95	2747,50
	90% t.ubi CD	50	46,05	2302,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1027,500
Wilcoxon W	2302,500
Z	-1,583
Asymp. Sig. (2-tailed)	,114

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi CD	50	56,50	2825,00
	100% t.ubi CD	50	44,50	2225,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	950,000
Wilcoxon W	2225,000
Z	-2,138
Asymp. Sig. (2-tailed)	,033

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi CD	50	49,96	2498,00
	0% t.ubi STD	50	51,04	2552,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1223,000
Wilcoxon W	2498,000
Z	-,191
Asymp. Sig. (2-tailed)	,848

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi STD	50	59,32	2966,00
	80% t.ubi STD	50	41,68	2084,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	809,000
Wilcoxon W	2084,000
Z	-3,122
Asymp. Sig. (2-tailed)	,002

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi STD	50	57,00	2850,00
	90% t.ubi STD	50	44,00	2200,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	925,000
Wilcoxon W	2200,000
Z	-2,310
Asymp. Sig. (2-tailed)	,021

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	0% t.ubi STD	50	57,02	2851,00
	100% STD	50	43,98	2199,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	924,000
Wilcoxon W	2199,000
Z	-2,320
Asymp. Sig. (2-tailed)	,020

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	80% t.ubi STD	50	47,60	2380,00
	90% t.ubi STD	50	53,40	2670,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1105,000
Wilcoxon W	2380,000
Z	-1,036
Asymp. Sig. (2-tailed)	,300

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	80% t.ubi STD	50	48,55	2427,50
	100% STD	50	52,45	2622,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1152,500
Wilcoxon W	2427,500
Z	-,699
Asymp. Sig. (2-tailed)	,485

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	90% t.ubi STD	50	51,15	2557,50
	100% STD	50	49,85	2492,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1217,500
Wilcoxon W	2492,500
Z	-,234
Asymp. Sig. (2-tailed)	,815

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	80% t ubi CD	50	57,62	2881,00
	80% t.ubi STD	50	43,38	2169,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	894,000
Wilcoxon W	2169,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	90% t.ubi CD	50	51,71	2585,50
	90% t.ubi STD	50	49,29	2464,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1189,500
Wilcoxon W	2464,500
Z	-,436
Asymp. Sig. (2-tailed)	,663

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	100% t.ubi CD	50	51,03	2551,50
	100% STD	50	49,97	2498,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1223,500
Wilcoxon W	2498,500
Z	-,192
Asymp. Sig. (2-tailed)	,848

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	80% t ubi CD	50	53,75	2687,50
	90% t.ubi CD	50	47,25	2362,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1087,500
Wilcoxon W	2362,500
Z	-1,164
Asymp. Sig. (2-tailed)	,244

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	80% t ubi CD	50	55,41	2770,50
	100% t.ubi CD	50	45,59	2279,50
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1004,500
Wilcoxon W	2279,500
Z	-1,758
Asymp. Sig. (2-tailed)	,079

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
warna	90% t.ubi CD	50	51,82	2591,00
	100% t.ubi CD	50	49,18	2459,00
	Total	100		

Test Statistics[a]

	warna
Mann-Whitney U	1184,000
Wilcoxon W	2459,000
Z	-,478
Asymp. Sig. (2-tailed)	,633

a. Grouping Variable: konsentrasi

UJI BEDA NYATA PARAMETER RASA

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi CD	50	41,28	2064,00
	80% t ubi CD	50	59,72	2986,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	789,000
Wilcoxon W	2064,000
Z	-3,278
Asymp. Sig. (2-tailed)	,001

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi CD	50	40,41	2020,50
	90% t.ubi CD	50	60,59	3029,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	745,500
Wilcoxon W	2020,500
Z	-3,562
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi CD	50	38,67	1933,50
	100% t.ubi CD	50	62,33	3116,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	658,500
Wilcoxon W	1933,500
Z	-4,183
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	80% t ubi CD	50	48,51	2425,50
	90% t.ubi CD	50	52,49	2624,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1150,500
Wilcoxon W	2425,500
Z	-,706
Asymp. Sig. (2-tailed)	,480

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	80% t ubi CD	50	47,08	2354,00
	100% t.ubi CD	50	53,92	2696,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1079,000
Wilcoxon W	2354,000
Z	-1,218
Asymp. Sig. (2-tailed)	,223

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	90% t.ubi CD	50	49,23	2461,50
	100% t.ubi CD	50	51,77	2588,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1186,500
Wilcoxon W	2461,500
Z	-,450
Asymp. Sig. (2-tailed)	,653

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi CD	50	52,78	2639,00
	0% t.ubi STD	50	48,22	2411,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1136,000
Wilcoxon W	2411,000
Z	-,820
Asymp. Sig. (2-tailed)	,412

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	80% t ubi CD	50	46,50	2325,00
	80% t.ubi STD	50	54,50	2725,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1050,000
Wilcoxon W	2325,000
Z	-1,427
Asymp. Sig. (2-tailed)	,154

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	90% t.ubi CD	50	50,90	2545,00
	90% t.ubi STD	50	50,10	2505,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1230,000
Wilcoxon W	2505,000
Z	-,141
Asymp. Sig. (2-tailed)	,887

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	100% t.ubi CD	50	50,46	2523,00
	100% STD	50	50,54	2527,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1248,000
Wilcoxon W	2523,000
Z	-,014
Asymp. Sig. (2-tailed)	,989

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi STD	50	36,32	1816,00
	80% t.ubi STD	50	64,68	3234,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	541,000
Wilcoxon W	1816,000
Z	-5,009
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi STD	50	38,38	1919,00
	90% t.ubi STD	50	62,62	3131,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	644,000
Wilcoxon W	1919,000
Z	-4,311
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	0% t.ubi STD	50	35,97	1798,50
	100% STD	50	65,03	3251,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	523,500
Wilcoxon W	1798,500
Z	-5,146
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	80% t.ubi STD	50	52,67	2633,50
	90% t.ubi STD	50	48,33	2416,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1141,500
Wilcoxon W	2416,500
Z	-,770
Asymp. Sig. (2-tailed)	,441

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	80% t.ubi STD	50	51,02	2551,00
	100% STD	50	49,98	2499,00
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1224,000
Wilcoxon W	2499,000
Z	-,187
Asymp. Sig. (2-tailed)	,852

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
rasa	90% t.ubi STD	50	48,61	2430,50
	100% STD	50	52,39	2619,50
	Total	100		

Test Statistics[a]

	rasa
Mann-Whitney U	1155,500
Wilcoxon W	2430,500
Z	-,672
Asymp. Sig. (2-tailed)	,501

a. Grouping Variable: konsentrasi

UJI BEDA NYATA PARAMETER INTENSITAS RASA

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi CD	50	37,74	1887,00
	80% t ubi CD	50	63,26	3163,00
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	612,000
Wilcoxon W	1887,000
Z	-4,486
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi CD	50	37,99	1899,50
	90% t.ubi CD	50	63,01	3150,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	624,500
Wilcoxon W	1899,500
Z	-4,403
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi CD	50	35,65	1782,50
	100% t.ubi CD	50	65,35	3267,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1224,000
Wilcoxon W	2499,000
Z	-,186
Asymp. Sig. (2-tailed)	,852

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	80% t ubi CD	50	47,93	2396,50
	100% t.ubi CD	50	53,07	2653,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1121,500
Wilcoxon W	2396,500
Z	-,909
Asymp. Sig. (2-tailed)	,363

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi CD	50	49,82	2491,00
	0% t.ubi STD	50	51,18	2559,00
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1216,000
Wilcoxon W	2491,000
Z	-,244
Asymp. Sig. (2-tailed)	,808

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	80% t ubi CD	50	47,37	2368,50
	80% t.ubi STD	50	53,63	2681,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1093,500
Wilcoxon W	2368,500
Z	-1,116
Asymp. Sig. (2-tailed)	,265

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	90% t.ubi CD	50	46,35	2317,50
	90% t.ubi STD	50	54,65	2732,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1042,500
Wilcoxon W	2317,500
Z	-1,506
Asymp. Sig. (2-tailed)	,132

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	100% t.ubi CD	50	50,37	2518,50
	100% STD	50	50,63	2531,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1243,500
Wilcoxon W	2518,500
Z	-,046
Asymp. Sig. (2-tailed)	,963

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi STD	50	34,77	1738,50
	80% t.ubi STD	50	66,23	3311,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	463,500
Wilcoxon W	1738,500
Z	-5,546
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi STD	50	34,05	1702,50
	90% t.ubi STD	50	66,95	3347,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	427,500
Wilcoxon W	1702,500
Z	-5,805
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	0% t.ubi STD	50	35,22	1761,00
	100% STD	50	65,78	3289,00
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	486,000
Wilcoxon W	1761,000
Z	-5,387
Asymp. Sig. (2-tailed)	,000

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	80% t.ubi STD	50	50,47	2523,50
	90% t.ubi STD	50	50,53	2526,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1248,500
Wilcoxon W	2523,500
Z	-,011
Asymp. Sig. (2-tailed)	,991

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	80% t.ubi STD	50	50,97	2548,50
	100% STD	50	50,03	2501,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1226,500
Wilcoxon W	2501,500
Z	-,169
Asymp. Sig. (2-tailed)	,865

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
intns_rasa	90% t.ubi STD	50	50,99	2549,50
	100% STD	50	50,01	2500,50
	Total	100		

Test Statistics[a]

	intns_rasa
Mann-Whitney U	1225,500
Wilcoxon W	2500,500
Z	-,178
Asymp. Sig. (2-tailed)	,858

a. Grouping Variable: konsentrasi

UJI BEDA NYATA PARAMETER INTENSITAS RASA

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi CD	50	45,37	2268,50
	80% t ubi CD	50	55,63	2781,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	993,500
Wilcoxon W	2268,500
Z	-1,827
Asymp. Sig. (2-tailed)	,068

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi CD	50	43,67	2183,50
	90% t.ubi CD	50	57,33	2866,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	908,500
Wilcoxon W	2183,500
Z	-2,421
Asymp. Sig. (2-tailed)	,015

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi CD	50	43,02	2151,00
	100% t.ubi CD	50	57,98	2899,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	876,000
Wilcoxon W	2151,000
Z	-2,637
Asymp. Sig. (2-tailed)	,008

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	80% t ubi CD	50	48,35	2417,50
	90% t.ubi CD	50	52,65	2632,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1142,500
Wilcoxon W	2417,500
Z	-,769
Asymp. Sig. (2-tailed)	,442

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	80% t ubi CD	50	32,69	1634,50
	100% t.ubi CD	18	39,53	711,50
	Total	68		

Test Statistics[a]

	overall
Mann-Whitney U	359,500
Wilcoxon W	1634,500
Z	-1,306
Asymp. Sig. (2-tailed)	,192

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	90% t.ubi CD	50	48,88	2444,00
	100% t.ubi CD	50	52,12	2606,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1169,000
Wilcoxon W	2444,000
Z	-,579
Asymp. Sig. (2-tailed)	,563

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi CD	50	53,60	2680,00
	0% t.ubi STD	50	47,40	2370,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1095,000
Wilcoxon W	2370,000
Z	-1,118
Asymp. Sig. (2-tailed)	,263

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	80% t ubi CD	50	52,58	2629,00
	80% t.ubi STD	50	48,42	2421,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1146,000
Wilcoxon W	2421,000
Z	-,743
Asymp. Sig. (2-tailed)	,457

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	90% t.ubi CD	50	52,39	2619,50
	90% t.ubi STD	50	48,61	2430,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1155,500
Wilcoxon W	2430,500
Z	-,671
Asymp. Sig. (2-tailed)	,502

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	100% t.ubi CD	50	52,08	2604,00
	100% STD	50	48,92	2446,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1171,000
Wilcoxon W	2446,000
Z	-,560
Asymp. Sig. (2-tailed)	,575

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi STD	50	44,05	2202,50
	80% t.ubi STD	50	56,95	2847,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	927,500
Wilcoxon W	2202,500
Z	-2,302
Asymp. Sig. (2-tailed)	,021

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi STD	50	42,82	2141,00
	90% t.ubi STD	50	58,18	2909,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	866,000
Wilcoxon W	2141,000
Z	-2,729
Asymp. Sig. (2-tailed)	,006

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	0% t.ubi STD	50	42,09	2104,50
	100% STD	50	58,91	2945,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	829,500
Wilcoxon W	2104,500
Z	-2,971
Asymp. Sig. (2-tailed)	,003

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	80% t.ubi STD	50	48,33	2416,50
	90% t.ubi STD	50	52,67	2633,50
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1141,500
Wilcoxon W	2416,500
Z	-,771
Asymp. Sig. (2-tailed)	,441

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	80% t.ubi STD	50	47,04	2352,00
	100% STD	50	53,96	2698,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1077,000
Wilcoxon W	2352,000
Z	-1,226
Asymp. Sig. (2-tailed)	,220

a. Grouping Variable: konsentrasi

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
overall	90% t.ubi STD	50	49,16	2458,00
	100% STD	50	51,84	2592,00
	Total	100		

Test Statistics[a]

	overall
Mann-Whitney U	1183,000
Wilcoxon W	2458,000
Z	-,473
Asymp. Sig. (2-tailed)	,636

a. Grouping Variable: konsentrasi

UJI *KENDALL'S TAU b*

Overall - warna

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-,037	,039	-,953	,340
N of Valid Cases		400			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Overall – Aroma

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	,172	,040	4,310	,000
N of Valid Cases		400			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Overall – tekstur

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	,037	,041	,898	,369
N of Valid Cases		400			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Overall – rasa

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	,301	,039	7,592	,000
N of Valid Cases		400			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Overall – intens_rasa

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	,097	,039	2,455	,014
N of Valid Cases		400			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.