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LAMPIRAN

1. Lampiran Analisis

A. Aktivitas Antioksidan

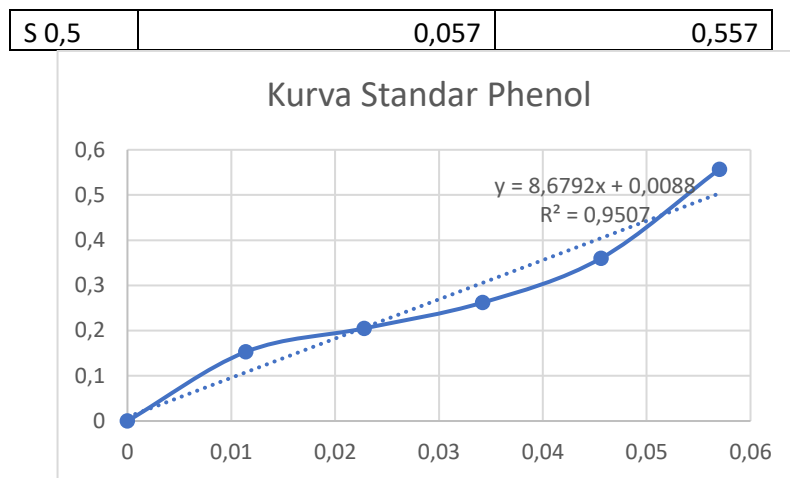
1. Timbang sample 1Gr ,larutkan menggunakan methanol pada konsentrasi tertentu.
2. Ambil 1ml larutan induk ,masukkan pada tabung reaksi
3. Tambahkan 1 ml larutan 1 ,1 ,2 ,2 –Diphenyl Picryl Hydrazyl (DPPH),200 Mikro molar
4. Inkubasi pada ruang gelap selama 30 menit
5. Encerkan hingga 5ml menggunakan methanol
6. Buat blanko (1ml larutan DPPH + 4 ml methanol)
7. Tera pada panjang gelombang 517 Nm

$$\text{Aktivitas Antioksidan (\%)} = \frac{\text{OD Blangko} - \text{OD Sampel}}{\text{OD Blangko}} \times 100 \%$$

B. Prosedur Analisa Phenol Metode Spektrofotometry, JB. Harboune 1987

1. Timbang 5 gram sampel yang telah di haluskan ke dalam erlenmayer 100 ml.
2. Encerkan dengan aquadest sampai volume 100 ml menggunakan labu ukur.
3. Larutan disaring/centrifuge hingga diperoleh lrutan/filtrate jernih.
4. Ambil 1 ml larutan/filtrate jernih ke dalam tabung reaksi kemudian tambahkan 0,5 ml follin denis (follin 1:1),kemudian tambahkan 1 ml larutan Na₂CO₃ jenuh kemudian diamkan selama 10 menit.
5. Tambahkan aquadest sampai volume 10 ml, kemudian vortex larutan hingga homogeny.
6. Baca Absorbasi sampel dengan menggunakan spektrofotometer dengan panjang gelombang 730 nm.
7. Catat data yang diperoleh kemudian hitung dengan menggunakan kurva standar phenol.
8. Buat kurva standar phenol.

	Konsentrasi	Absorbansi
S 0,0	0	0
S 0,1	0,0114	0,153
S 0,2	0,0228	0,205
S 0,3	0,0342	0,262
S 0,4	0,0456	0,36



C. Analisa Kadar Air (Gravimetric)

1. menimbang wadah yang digunakan sampai 0,0001 gr terdekat (W1). Tuang sampel ke dalamnya (5 g) dan timbang sampai 0,0001 gr terdekat (W2).
2. Keringkan sampel di dalam oven konvensional suhu 105°C selama waktu yang telah ditentukan, kemudian dinginkan sampel keringnya di dalam desikator selama 30 menit.
3. Timbang wadah dan sampel kering sampai 0,0001 g terdekat (W3).

D. Rendemen

1. Menimbang dan mencatat berat serbuk yang diperoleh.
2. kemudian hitung rendemen serbuk dengan perhitungan :

$$\%rendemen = \frac{\text{Berat serbuk yang didapat}}{\text{Berat minuman awal}} \times 100\%$$

E. kecepatan Larut

1. Timbang serbuk daun ekor naga dengan ekstrak jahe merah sebanyak 3 gram
2. Kemudian tambahkan 100 ml air.
3. Panaskan dengan suhu 65°C.
4. kemudian putar dengan kecepatan 400 rpm.
5. catat waktu larut serbuk menggunakan stopwatch.

F. Analisa Uji Organoleptik Kesukaan, Aroma, Warna, Rasa, (Kartika, dkk 1998)

Nama :

Hari/tanggal :

NIM :

Tanda tangan :

Dihadapan saudara disajikan 9 sampel selai albedo kulit semangka dengan penambahan umbi bit dengan kode yang berbeda. Saudara diminta untuk memberi penilaian kesukaan aroma dengan cara mencium, kesukaan warna dengan melihat, kesukaan rasa dengan cara mencicipi, kesukaan daya oles dengan cara dioleskan ke roti tawar. Lalu memberi penilaian 1 -7.

Kode Sampel	Aroma	Warna	Rasa
112			
113			
114			
567			
568			
569			
271			
272			
273			

Komentar

.....

Keterangan : 1 = Sangat tidak suka 5 = Agak suka
 2 = Tidak suka 6 = Suka
 3 = Agak tidak suka 7 = Sangat Suka
 4 = Netral

2. Lampiran dokumentasi penelitian

A. Ekstraksi Daun Ekor Naga



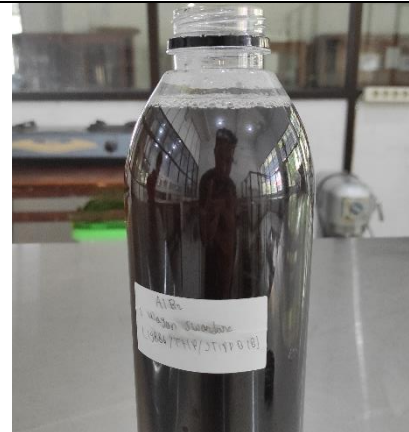
Pencucian dan sortasi daun ekor naga



Perebusan daun ekor naga dengan air mendidih



Pendinginan ekstrak daun ekor naga yang dihasilkan



Penyimpanan minuman daun ekor naga dalam botol

B. Ekstraksi Jahe Merah



Pengupasan dan pencucian jahe merah



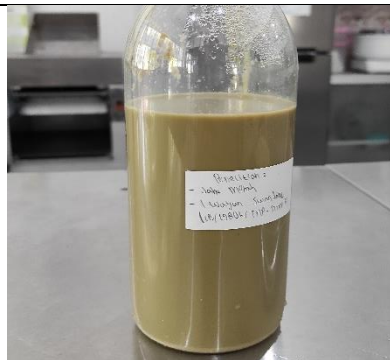
Pengecilan ukuran jahe merah



Penghalusan jahe merah



Penyaringan jahe merah untuk mendapatkan ekstrak

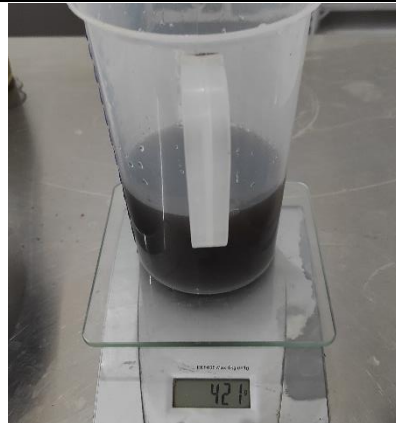


Ekstrak Jahe Merah



Ampas Jahe Merah

C. Pembuatan Minuman Daun Ekor Naga dengan Ekstrak Jahe Merah



Penimbangan ekstrak daun ekor naga



Penimbangan ekstrak jahe merah



Penambahan sukrosa sebanyak 15 gram



Pencampuran hingga homogen dengan mixer

D. Pembuatan Serbuk Minuman Daun Ekor Naga dengan Ekstrak Jahe Merah



Penambahan Tween 80 dan maltodekstrin dan diaduk hingga homogen selama 20 menit sampai busa naik



Pengaturan oven pada suhu 65°C selama 6 jam



Penyusunan pada tray



Dimasukan tray pada oven selama 6 jam

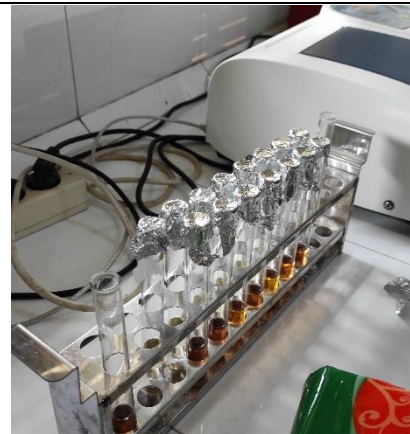


Hasil Setelah pengovenan	Hasil setelah pengovenan
 Penggunaan skrup untuk mengelupaskan serbuk	 Serbuk sebelum di blender
 Pengayakan dengan ayakan 30 mess	 Serbuk Daun Ekor Naga Dengan Ekstrak Jahe Merah

E. Analisis Kimia dan Fisik Serbuk Minuman Daun Ekor Naga dengan Ekstrk Jahe Merah



Analisis antioksidan menggunakan Spektrofotometer



Analisis Phenol



Analisis Kadar Air



Analisis warna menggunakan colorimeter



Analisis Kecepatan Larut



Uji Organoleptik (Aroma, Rasa, Warna)

3. Lampiran perhitungan

3.1 Uji Aktivitas Antioksidan Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Antioksidan

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	57.513300	3.5831929	2
	10 gram	55.441500	6.4020034	2
	15 gram	51.190000	7.2881496	2
	Total	54.714933	5.4499516	6
1 persen	5 gram	65.568700	1.6641051	2
	10 gram	56.691150	2.8516909	2
	15 gram	51.939950	1.8812576	2
	Total	58.066600	6.4165245	6
1,5 persen	5 gram	72.011250	7.7092317	2
	10 gram	66.267800	14.3829762	2
	15 gram	61.269850	12.2013396	2
	Total	66.516300	10.3027945	6
Total	5 gram	65.031083	7.5643694	6
	10 gram	59.466817	8.9029157	6
	15 gram	54.799933	8.1445790	6
	Total	59.765944	8.8414578	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Antioksidan

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Antioksidan

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	792.356 ^a	8	99.044	1.661	.232
Intercept	64295.426	1	64295.426	1,078.466	.000
Tween	443.807	2	221.903	3.722	.066
Dekstrin	314.835	2	157.417	2.640	.125
Tween * Dekstrin	33.715	4	8.429	.141	.962
Error	536.558	9	59.618		
Total	65624.339	18			
Corrected Total	1328.913	17			

a. R Squared = ,596 (Adjusted R Squared = ,237)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Antioksidan

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-3.351667	4.4578583	.471	-13.436043	6.732709
		1,5 persen	-11.801367*	4.4578583	.027	-21.885743	-1.716991
	1 persen	0,5 persen	3.351667	4.4578583	.471	-6.732709	13.436043
		1,5 persen	-8.449700	4.4578583	.091	-18.534076	1.634676
	1,5 persen	0,5 persen	11.801367*	4.4578583	.027	1.716991	21.885743
		1 persen	8.449700	4.4578583	.091	-1.634676	18.534076

Based on observed means.

The error term is Mean Square(Error) = 59,618.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Antioksidan

			Subset	
	Tween	N	1	2
Duncan ^{a,b}	0,5 persen	6	54.714933	
	1 persen	6	58.066600	58.066600
	1,5 persen	6		66.516300
	Sig.		.471	.091

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 59,618.

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

b. Alpha = ,05.

Dekstrin**Multiple Comparisons**

Dependent Variable: Antioksidan

			Mean Difference			95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
LSD	5 gram	10 gram	5.564267	4.4578583	.243	-4.520109	15.64864
		15 gram	10.231150*	4.4578583	.047	.146774	20.31552
	10 gram	5 gram	-5.564267	4.4578583	.243	-15.648643	4.52010
		15 gram	4.666883	4.4578583	.322	-5.417493	14.75125
	15 gram	5 gram	-10.231150*	4.4578583	.047	-20.315526	-.14677
		10 gram	-4.666883	4.4578583	.322	-14.751259	5.41749

Based on observed means.

The error term is Mean Square(Error) = 59,618.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets**Antioksidan**

			Subset
	Dekstrin	N	1
Duncan ^{a,b}	15 gram	6	54.799933

10 gram	6	59.466817
5 gram	6	65.031083
Sig.		.055

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 59,618.

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

b. Alpha = ,05.

Uji T Aktivitas Antioksidan

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Antioksidan	18	59.765944	8.8414578	2.0839516

One-Sample Test

	Test Value = 0.984					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Antioksidan	28.207	17	1.021E-15	58.7819444	54.385191	63.178698

3.2 Kadar Phenol Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6

Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Phenol

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	9.286865	.3927759	2
	10 gram	6.973855	1.2581056	2
	15 gram	8.210644	.2332109	2
	Total	8.157121	1.1958342	6
1 persen	5 gram	10.532330	.4357333	2
	10 gram	4.226892	.3436786	2
	15 gram	3.011804	.2823074	2
	Total	5.923675	3.6216907	6
1,5 persen	5 gram	4.738964	.0736452	2
	10 gram	6.791595	.2638965	2
	15 gram	6.631030	.4418731	2
	Total	6.053863	1.0471843	6
Total	5 gram	8.186053	2.7403653	6
	10 gram	5.997447	1.4972246	6
	15 gram	5.951159	2.3976635	6
	Total	6.711553	2.3896116	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Phenol

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Phenol

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	94.625 ^a	8	11.828	43.459	2.703E-6
Intercept	810.809	1	810.809	2,979.111	1.170E-12
Tween	18.858	2	9.429	34.644	5.922E-5
Dekstrin	19.574	2	9.787	35.959	5.103E-5
Tween * Dekstrin	56.193	4	14.048	51.617	3.305E-6
Error	2.449	9	.272		
Total	907.883	18			
Corrected Total	97.074	17			

a. R Squared = ,975 (Adjusted R Squared = ,952)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Phenol

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	2.233446*	.3012002	4.038E-5	1.552084	2.914808
		1,5 persen	2.103258*	.3012002	6.445E-5	1.421896	2.784621
	1 persen	0,5 persen	-2.233446*	.3012002	4.038E-5	-2.914808	-1.552084
		1,5 persen	-.130188	.3012002	.676	-.811550	.551174
	1,5 persen	0,5 persen	-2.103258*	.3012002	6.445E-5	-2.784621	-1.421896
		1 persen	.130188	.3012002	.676	-.551174	.811550

Based on observed means.

The error term is Mean Square(Error) = ,272.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Phenol

	Tween	N	Subset	
			1	2
Duncan ^{a,b}	1 persen	6	5.923675	
	1,5 persen	6	6.053863	
	0,5 persen	6		8.157121

	Sig.		.676	1.000
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Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,272.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: Phenol

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound
LSD	5 gram	10 gram	2.188606*	.3012002	4.733E-5	1.507243	2.869968
		15 gram	2.234894*	.3012002	4.018E-5	1.553532	2.916256
	10 gram	5 gram	-2.188606*	.3012002	4.733E-5	-2.869968	-1.507243
		15 gram	.046288	.3012002	.881	-.635074	.727650
	15 gram	5 gram	-2.234894*	.3012002	4.018E-5	-2.916256	-1.553532
		10 gram	-.046288	.3012002	.881	-.727650	.635074

Based on observed means.

The error term is Mean Square(Error) = ,272.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Phenol				
	Dekstrin	N	Subset	
			1	2
Duncan ^{a,b}	15 gram	6	5.951159	8.186053
	10 gram	6	5.997447	
	5 gram	6		
	Sig.		.881	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,272.

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

b. Alpha = ,05.

Uji T Phenol

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Phenol	18	6.711553	2.3896116	.5632369

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Phenol	11.916	17	1.120E-9	6.7115530	5.523227	7.899879

3.3 Kadar Air

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Kadar Air

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	4.010900	.8103444	2
	10 gram	3.764700	.1803122	2
	15 gram	3.289350	.0762968	2
	Total	3.688317	.4966144	6
1 persen	5 gram	3.191250	.1444619	2
	10 gram	3.411100	.1688571	2
	15 gram	3.439600	.0656195	2
	Total	3.347317	.1597314	6
1,5 persen	5 gram	3.534950	.0741755	2
	10 gram	3.345850	.1447448	2
	15 gram	3.170450	.0467398	2
	Total	3.350417	.1797556	6
Total	5 gram	3.579033	.5216676	6
	10 gram	3.507217	.2387998	6
	15 gram	3.299800	.1304462	6
	Total	3.462017	.3415531	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Kadar_Air

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Kadar_Air

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.206 ^a	8	.151	1.745	.212
Intercept	215.740	1	215.740	2,497.900	2.579E-12
Tween	.461	2	.230	2.668	.123
Dekstrin	.252	2	.126	1.461	.282
Tween * Dekstrin	.493	4	.123	1.426	.301
Error	.777	9	.086		
Total	217.723	18			
Corrected Total	1.983	17			

a. R Squared = ,608 (Adjusted R Squared = ,260)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Kadar_Air

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	.341000	.1696748	.075	-.042831	.724831
		1,5 persen	.337900	.1696748	.078	-.045931	.721731
	1 persen	0,5 persen	-.341000	.1696748	.075	-.724831	.042831
		1,5 persen	-.003100	.1696748	.986	-.386931	.380731
	1,5 persen	0,5 persen	-.337900	.1696748	.078	-.721731	.045931
		1 persen	.003100	.1696748	.986	-.380731	.386931

Based on observed means.

The error term is Mean Square(Error) = ,086.

Homogeneous Subsets

Kadar_Air			
			Subset
	Tween	N	1
Duncan ^{a,b}	1 persen	6	3.347317
	1,5 persen	6	3.350417
	0,5 persen	6	3.688317
	Sig.		.086

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,086.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: Kadar_Air

			Mean Difference			95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
LSD	5 gram	10 gram	.071817	.1696748	.682	-.312014	.455648
		15 gram	.279233	.1696748	.134	-.104598	.663064
	10 gram	5 gram	-.071817	.1696748	.682	-.455648	.312014
		15 gram	.207417	.1696748	.253	-.176414	.591248
	15 gram	5 gram	-.279233	.1696748	.134	-.663064	.104598
		10 gram	-.207417	.1696748	.253	-.591248	.176414

Based on observed means.

The error term is Mean Square(Error) = ,086.

Homogeneous Subsets

Kadar_Air

			Subset
	Dekstrin	N	1
Duncan ^{a,b}	15 gram	6	3.299800
	10 gram	6	3.507217
	5 gram	6	3.579033
	Sig.		.150

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,086.

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

b. Alpha = ,05.

Uji T Kadar Air

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Kadar_Air	18	3.462017	.3415531	.0805048

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Kadar_Air	5.739	17	2.409E-5	.4620167	.292166	.631867

3.4 Rendemen

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Rendemen

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	11.796750	.1829285	2
	10 gram	15.769300	.3685441	2
	15 gram	19.641350	.2980455	2
	Total	15.735800	3.5156574	6
1 persen	5 gram	12.220400	.0842871	2
	10 gram	16.239450	.5633520	2
	15 gram	20.060500	.2156676	2
	Total	16.173450	3.5171357	6
1,5 persen	5 gram	12.662900	.0369110	2
	10 gram	17.117850	.0596091	2
	15 gram	21.371450	.2892774	2
	Total	17.050733	3.8972029	6
Total	5 gram	12.226683	.3980613	6
	10 gram	16.375533	.6827718	6
	15 gram	20.357767	.8339513	6
	Total	16.319994	3.4723431	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Rendemen

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Rendemen

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	204.254 ^a	8	25.532	320.171	3.941E-10
Intercept	4794.160	1	4794.160	60,119.212	1.589E-18
Tween	5.380	2	2.690	33.736	6.582E-5
Dekstrin	198.371	2	99.186	1,243.797	1.014E-11
Tween * Dekstrin	.502	4	.126	1.575	.262
Error	.718	9	.080		
Total	4999.132	18			
Corrected Total	204.972	17			

a. R Squared = ,996 (Adjusted R Squared = ,993)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Rendemen

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-.437650*	.1630381	.025	-.806468	-.068832
		1,5 persen	-1.314933*	.1630381	2.074E-5	-1.683751	-.946116
	1 persen	0,5 persen	.437650*	.1630381	.025	.068832	.806468
		1,5 persen	-.877283*	.1630381	.000	-1.246101	-.508466
	1,5 persen	0,5 persen	1.314933*	.1630381	2.074E-5	.946116	1.683751
		1 persen	.877283*	.1630381	.000	.508466	1.246101

Based on observed means.

The error term is Mean Square(Error) = ,080.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Rendemen					
			Subset		
	Tween	N	1	2	3
Duncan ^{a,b}	0,5 persen	6	15.735800		
	1 persen	6		16.173450	
	1,5 persen	6			17.050733
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,080.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: Rendemen

			Mean Difference	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin	(I-J)			Lower Bound	Upper Bound
LSD	5 gram	10 gram	-4.148850*	.1630381	1.075E-9	-4.517668	-3.780032
		15 gram	-8.131083*	.1630381	2.629E-12	-8.499901	-7.762266
	10 gram	5 gram	4.148850*	.1630381	1.075E-9	3.780032	4.517668
		15 gram	-3.982233*	.1630381	1.548E-9	-4.351051	-3.613416
	15 gram	5 gram	8.131083*	.1630381	2.629E-12	7.762266	8.499901
		10 gram	3.982233*	.1630381	1.548E-9	3.613416	4.351051

Based on observed means.

The error term is Mean Square(Error) = ,080.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Rendemen

			Subset		
	Dekstrin	N	1	2	3
Duncan ^{a,b}	5 gram	6	12.226683		
	10 gram	6		16.375533	
	15 gram	6			20.357767
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,080.

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

b. Alpha = ,05.

3.5 Kecepatan Larut Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Kecepatan Larut

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	116.50	2.121	2
	10 gram	113.50	.707	2
	15 gram	103.00	1.414	2
	Total	111.00	6.450	6
1 persen	5 gram	91.50	2.121	2
	10 gram	87.50	2.121	2
	15 gram	78.00	.000	2
	Total	85.67	6.346	6
1,5 persen	5 gram	98.50	.707	2

	10 gram	88.00	2.828	2
	15 gram	86.00	1.414	2
	Total	90.83	6.178	6
Total	5 gram	102.17	11.618	6
	10 gram	96.33	13.397	6
	15 gram	89.00	11.454	6
	Total	95.83	12.720	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Kecepatan Larut

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Kecepatan Larut

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2724.000 ^a	8	340.500	115.642	3.691E-8
Intercept	165312.500	1	165312.500	56,143.868	2.161E-18
Tween	2150.333	2	1075.167	365.151	2.423E-9
Dekstrin	522.333	2	261.167	88.698	1.194E-6
Tween * Dekstrin	51.333	4	12.833	4.358	.031
Error	26.500	9	2.944		
Total	168063.000	18			
Corrected Total	2750.500	17			

a. R Squared = ,990 (Adjusted R Squared = ,982)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Kecepatan_Larut

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	25.33*	.991	1.030E-9	23.09	27.57
		1,5 persen	20.17*	.991	7.771E-9	17.93	22.41
	1 persen	0,5 persen	-25.33*	.991	1.030E-9	-27.57	-23.09
		1,5 persen	-5.17*	.991	.001	-7.41	-2.93
	1,5 persen	0,5 persen	-20.17*	.991	7.771E-9	-22.41	-17.93
		1 persen	5.17*	.991	.001	2.93	7.41

Based on observed means.

The error term is Mean Square(Error) = 2,944.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Kecepatan Larut					
	Tween	N	Subset		
			1	2	3
Duncan ^{a,b}	1 persen	6	85.67		
	1,5 persen	6		90.83	
	0,5 persen	6			111.00
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 2,944.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: Kecepatan Larut

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound

LSD	5 gram	10 gram	5.83*	.991	.000	3.59	8.07
		15 gram	13.17*	.991	3.212E-7	10.93	15.41
	10 gram	5 gram	-5.83*	.991	.000	-8.07	-3.59
		15 gram	7.33*	.991	4.094E-5	5.09	9.57
	15 gram	5 gram	-13.17*	.991	3.212E-7	-15.41	-10.93
		10 gram	-7.33*	.991	4.094E-5	-9.57	-5.09

Based on observed means.

The error term is Mean Square(Error) = 2,944.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Kecepatan Larut					
	Dekstrin	N	Subset		
			1	2	3
Duncan ^{a,b}	15 gram	6	89.00		
	10 gram	6		96.33	
	5 gram	6			102.17
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 2,944.

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

b. Alpha = ,05.

3.6 Uji Kesukaan Aroma

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Aroma

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	3.8250	.03536	2
	10 gram	4.3750	.31820	2
	15 gram	4.2750	.38891	2
	Total	4.1583	.34557	6
1 persen	5 gram	4.0500	.07071	2
	10 gram	4.4750	.10607	2
	15 gram	3.9500	.07071	2
	Total	4.1583	.25771	6
1,5 persen	5 gram	4.1750	.03536	2
	10 gram	4.4750	.17678	2
	15 gram	4.3750	.03536	2
	Total	4.3417	.15943	6
Total	5 gram	4.0167	.16330	6
	10 gram	4.4417	.17725	6
	15 gram	4.2000	.26646	6
	Total	4.2194	.26465	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Aroma

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Aroma

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.882 ^a	8	.110	3.214	.051
Intercept	320.467	1	320.467	9,341.543	6.891E-15
Tween	.134	2	.067	1.960	.197
Dekstrin	.545	2	.273	7.947	.010
Tween * Dekstrin	.202	4	.051	1.474	.288
Error	.309	9	.034		
Total	321.658	18			
Corrected Total	1.191	17			

a. R Squared = ,741 (Adjusted R Squared = ,510)

Post Hoc Test

Tween

Homogeneous Subsets

Aroma			
			Subset
	Tween	N	1
Duncan ^{a,b}	0,5 persen	6	4.1583
	1 persen	6	4.1583
	1,5 persen	6	4.3417
	Sig.		.135

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,034.

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

b. Alpha = ,05.

Multiple Comparisons

Dependent Variable: Aroma

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	.0000	.10694	1.000	-.2419	.2419
		1,5 persen	-.1833	.10694	.121	-.4252	.0586
	1 persen	0,5 persen	.0000	.10694	1.000	-.2419	.2419
		1,5 persen	-.1833	.10694	.121	-.4252	.0586
	1,5 persen	0,5 persen	.1833	.10694	.121	-.0586	.4252
		1 persen	.1833	.10694	.121	-.0586	.4252

Based on observed means.

The error term is Mean Square(Error) = ,034.

Dekstrin

Multiple Comparisons

Dependent Variable: Aroma

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound
LSD	5 gram	10 gram	-.4250*	.10694	.003	-.6669	-.1831
		15 gram	-.1833	.10694	.121	-.4252	.0586
	10 gram	5 gram	.4250*	.10694	.003	.1831	.6669
		15 gram	.2417	.10694	.050	-.0002	.4836
	15 gram	5 gram	.1833	.10694	.121	-.0586	.4252
		10 gram	-.2417	.10694	.050	-.4836	.0002

Based on observed means.

The error term is Mean Square(Error) = ,034.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Aroma			
	Dekstrin	N	Subset

			1	2
Duncan ^{a,b}	5 gram	6	4.0167	
	15 gram	6	4.2000	4.2000
	10 gram	6		4.4417
	Sig.		.121	.050

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,034.

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

b. Alpha = ,05.

3.7 Uji Kesukaan Warna Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Warna

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	4.3500	.07071	2
	10 gram	4.2750	.03536	2
	15 gram	4.0750	.03536	2
	Total	4.2333	.13292	6
1 persen	5 gram	4.9500	.00000	2
	10 gram	4.5750	.03536	2
	15 gram	4.7750	.03536	2
	Total	4.7667	.16931	6
1,5 persen	5 gram	4.2500	.00000	2

	10 gram	4.3500	.07071	2
	15 gram	4.7250	.03536	2
	Total	4.4417	.22675	6
Total	5 gram	4.5167	.34010	6
	10 gram	4.4000	.14491	6
	15 gram	4.5250	.35036	6
	Total	4.4806	.28239	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Warna

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Warna

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.339 ^a	8	.167	92.731	9.805E-8
Intercept	361.357	1	361.357	200,136.077	7.093E-21
Tween	.867	2	.433	240.077	1.554E-8
Dekstrin	.059	2	.029	16.231	.001
Tween * Dekstrin	.414	4	.103	57.308	2.110E-6
Error	.016	9	.002		
Total	362.713	18			
Corrected Total	1.356	17			

a. R Squared = ,988 (Adjusted R Squared = ,977)

Between-Subjects Factors

	Value Label	N
Tween 1	0,5 persen	6

	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Warna

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	4.3500	.07071	2
	10 gram	4.2750	.03536	2
	15 gram	4.0750	.03536	2
	Total	4.2333	.13292	6
1 persen	5 gram	4.9500	.00000	2
	10 gram	4.5750	.03536	2
	15 gram	4.7750	.03536	2
	Total	4.7667	.16931	6
1,5 persen	5 gram	4.2500	.00000	2
	10 gram	4.3500	.07071	2
	15 gram	4.7250	.03536	2
	Total	4.4417	.22675	6
Total	5 gram	4.5167	.34010	6
	10 gram	4.4000	.14491	6
	15 gram	4.5250	.35036	6
	Total	4.4806	.28239	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Warna

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Warna

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.339 ^a	8	.167	92.731	9.805E-8
Intercept	361.357	1	361.357	200,136.077	7.093E-21
Tween	.867	2	.433	240.077	1.554E-8
Dekstrin	.059	2	.029	16.231	.001
Tween * Dekstrin	.414	4	.103	57.308	2.110E-6
Error	.016	9	.002		
Total	362.713	18			
Corrected Total	1.356	17			

a. R Squared = ,988 (Adjusted R Squared = ,977)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Warna

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-.5333*	.02453	4.346E-9	-.5888	-.4778
		1,5 persen	-.2083*	.02453	1.370E-5	-.2638	-.1528
	1 persen	0,5 persen	.5333*	.02453	4.346E-9	.4778	.5888
		1,5 persen	.3250*	.02453	3.302E-7	.2695	.3805
	1,5 persen	0,5 persen	.2083*	.02453	1.370E-5	.1528	.2638
		1 persen	-.3250*	.02453	3.302E-7	-.3805	-.2695

Based on observed means.

The error term is Mean Square(Error) = ,002.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Warna

			Subset		
	Tween	N	1	2	3
Duncan ^{a,b}	0,5 persen	6	4.2333		
	1,5 persen	6		4.4417	
	1 persen	6			4.7667
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,002.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: Warna

			Mean Difference			95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
LSD	5 gram	10 gram	.1167*	.02453	.001	.0612	.1722
		15 gram	-.0083	.02453	.742	-.0638	.0472
	10 gram	5 gram	-.1167*	.02453	.001	-.1722	-.0612
		15 gram	-.1250*	.02453	.001	-.1805	-.0695
	15 gram	5 gram	.0083	.02453	.742	-.0472	.0638
		10 gram	.1250*	.02453	.001	.0695	.1805

Based on observed means.

The error term is Mean Square(Error) = ,002.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Warna

			Subset	
	Dekstrin	N	1	2
Duncan ^{a,b}	10 gram	6	4.4000	
	5 gram	6		4.5167
	15 gram	6		4.5250
	Sig.		1.000	.742

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,002.

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

b. Alpha = ,05.

3.8 Uji Kesukaan Rasa Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: Rasa

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	4.1750	.03536	2
	10 gram	4.2250	.10607	2
	15 gram	4.0750	.03536	2
	Total	4.1583	.08612	6
1 persen	5 gram	4.3500	.07071	2
	10 gram	4.2750	.03536	2
	15 gram	4.5750	.03536	2
	Total	4.4000	.14491	6
1,5 persen	5 gram	4.7250	.03536	2
	10 gram	4.8500	.07071	2

	15 gram	4.8500	.07071	2
	Total	4.8083	.08010	6
Total	5 gram	4.4167	.25430	6
	10 gram	4.4500	.31623	6
	15 gram	4.5000	.35355	6
	Total	4.4556	.29400	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: Rasa

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: Rasa

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.437 ^a	8	.180	49.740	1.506E-6
Intercept	357.336	1	357.336	98,954.462	1.688E-19
Tween	1.295	2	.648	179.346	5.616E-8
Dekstrin	.021	2	.011	2.923	.105
Tween * Dekstrin	.121	4	.030	8.346	.004
Error	.033	9	.004		
Total	358.805	18			
Corrected Total	1.469	17			

a. R Squared = ,978 (Adjusted R Squared = ,958)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: Rasa

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-.2417*	.03469	6.570E-5	-.3202	-.1632
		1,5 persen	-.6500*	.03469	1.614E-8	-.7285	-.5715
	1 persen	0,5 persen	.2417*	.03469	6.570E-5	.1632	.3202
		1,5 persen	-.4083*	.03469	9.082E-7	-.4868	-.3298
	1,5 persen	0,5 persen	.6500*	.03469	1.614E-8	.5715	.7285
		1 persen	.4083*	.03469	9.082E-7	.3298	.4868

Based on observed means.

The error term is Mean Square(Error) = ,004.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Rasa

	Tween	N	Subset		
			1	2	3
Duncan ^{a,b}	0,5 persen	6	4.1583		
	1 persen	6		4.4000	
	1,5 persen	6			4.8083
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,004.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: Rasa

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound
LSD	5 gram	10 gram	-.0333	.03469	.362	-.1118	.0452

	15 gram		-.0833*	.03469	.040	-.1618	-.0048
10 gram	5 gram		.0333	.03469	.362	-.0452	.1118
	15 gram		-.0500	.03469	.183	-.1285	.0285
15 gram	5 gram		.0833*	.03469	.040	.0048	.1618
	10 gram		.0500	.03469	.183	-.0285	.1285

Based on observed means.

The error term is Mean Square(Error) = ,004.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

Rasa				
			Subset	
	Dekstrin	N	1	2
Duncan ^{a,b}	5 gram	6	4.4167	
	10 gram	6	4.4500	4.4500
	15 gram	6		4.5000
	Sig.		.362	.183

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,004.

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

b. Alpha = ,05.

3.10 Warna (L)

Univariate Analysis of Variance

Between-Subjects Factors			
		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: L Warna

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	50.3650	.27577	2
	10 gram	53.7900	.98995	2
	15 gram	52.0450	.04950	2
	Total	52.0667	1.59941	6
1 persen	5 gram	51.8700	.46669	2
	10 gram	56.0500	.43841	2
	15 gram	59.0350	.79903	2
	Total	55.6517	3.25151	6
1,5 persen	5 gram	48.7650	.28991	2
	10 gram	48.2650	.77075	2
	15 gram	51.5550	.43134	2
	Total	49.5283	1.63929	6
Total	5 gram	50.3333	1.41576	6
	10 gram	52.7017	3.63114	6
	15 gram	54.2117	3.76459	6
	Total	52.4156	3.36653	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: L Warna

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: L Warna

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	189.699 ^a	8	23.712	71.829	3.021E-7

Intercept	49453.028	1	49453.028	149,802.179	2.612E-20
Tween	113.581	2	56.791	172.029	6.742E-8
Dekstrin	45.861	2	22.931	69.461	3.380E-6
Tween * Dekstrin	30.256	4	7.564	22.913	9.745E-5
Error	2.971	9	.330		
Total	49645.698	18			
Corrected Total	192.670	17			

a. R Squared = ,985 (Adjusted R Squared = ,971)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: L_Warna

			Mean Difference	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween	(I-J)			Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-3.5850*	.33172	1.869E-6	-4.3354	-2.8346
		1,5 persen	2.5383*	.33172	3.152E-5	1.7879	3.2887
	1 persen	0,5 persen	3.5850*	.33172	1.869E-6	2.8346	4.3354
		1,5 persen	6.1233*	.33172	1.839E-8	5.3729	6.8737
	1,5 persen	0,5 persen	-2.5383*	.33172	3.152E-5	-3.2887	-1.7879
		1 persen	-6.1233*	.33172	1.839E-8	-6.8737	-5.3729

Based on observed means.

The error term is Mean Square(Error) = ,330.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

L_Warna					
	Tween	N	Subset		
			1	2	3

Duncan ^{a,b}	1,5 persen	6	49.5283		
	0,5 persen	6		52.0667	
	1 persen	6			55.6517
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,330.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: L_Warna

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound
LSD	5 gram	10 gram	-2.3683*	.33172	5.428E-5	-3.1187	-1.6179
		15 gram	-3.8783*	.33172	9.610E-7	-4.6287	-3.1279
	10 gram	5 gram	2.3683*	.33172	5.428E-5	1.6179	3.1187
		15 gram	-1.5100*	.33172	.001	-2.2604	-.7596
	15 gram	5 gram	3.8783*	.33172	9.610E-7	3.1279	4.6287
		10 gram	1.5100*	.33172	.001	.7596	2.2604

Based on observed means.

The error term is Mean Square(Error) = ,330.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

L_Warna					
	Dekstrin	N	Subset		
			1	2	3

Duncan ^{a,b}	5 gram	6	50.3333		
	10 gram	6		52.7017	
	15 gram	6			54.2117
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,330.

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

b. Alpha = ,05.

3.11 Warna (a)

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: a_Warna

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	2.4400	.21213	2
	10 gram	2.4800	.02828	2
	15 gram	1.6400	.05657	2
	Total	2.1867	.43523	6
1 persen	5 gram	3.4050	.21920	2
	10 gram	4.0900	.00000	2
	15 gram	4.0500	.01414	2
	Total	3.8483	.35763	6
1,5 persen	5 gram	2.7000	.04243	2
	10 gram	2.0850	.31820	2
	15 gram	3.0150	.06364	2
	Total	2.6000	.44766	6
Total	5 gram	2.8483	.46735	6
	10 gram	2.8850	.96064	6
	15 gram	2.9017	1.08204	6
	Total	2.8783	.82495	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: a_Warna

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: a Warna

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	11.365 ^a	8	1.421	62.567	5.534E-7
Intercept	149.126	1	149.126	6,567.840	3.358E-14
Tween	8.981	2	4.490	197.763	3.655E-8
Dekstrin	.009	2	.004	.197	.825
Tween * Dekstrin	2.375	4	.594	26.154	5.700E-5
Error	.204	9	.023		
Total	160.696	18			
Corrected Total	11.569	17			

a. R Squared = ,982 (Adjusted R Squared = ,967)

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6
Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: a Warna

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	2.4400	.21213	2

	10 gram	2.4800	.02828	2
	15 gram	1.6400	.05657	2
	Total	2.1867	.43523	6
1 persen	5 gram	3.4050	.21920	2
	10 gram	4.0900	.00000	2
	15 gram	4.0500	.01414	2
	Total	3.8483	.35763	6
1,5 persen	5 gram	2.7000	.04243	2
	10 gram	2.0850	.31820	2
	15 gram	3.0150	.06364	2
	Total	2.6000	.44766	6
Total	5 gram	2.8483	.46735	6
	10 gram	2.8850	.96064	6
	15 gram	2.9017	1.08204	6
	Total	2.8783	.82495	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: a. Warna

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: a. Warna

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	11.365 ^a	8	1.421	62.567	5.534E-7
Intercept	149.126	1	149.126	6,567.840	3.358E-14
Tween	8.981	2	4.490	197.763	3.655E-8
Dekstrin	.009	2	.004	.197	.825
Tween * Dekstrin	2.375	4	.594	26.154	5.700E-5
Error	.204	9	.023		

Total	160.696	18			
Corrected Total	11.569	17			

a. R Squared = ,982 (Adjusted R Squared = ,967)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: a_Warna

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-1.6617*	.08700	1.362E-8	-1.8585	-1.4649
		1,5 persen	-.4133*	.08700	.001	-.6101	-.2165
	1 persen	0,5 persen	1.6617*	.08700	1.362E-8	1.4649	1.8585
		1,5 persen	1.2483*	.08700	1.657E-7	1.0515	1.4451
	1,5 persen	0,5 persen	.4133*	.08700	.001	.2165	.6101
		1 persen	-1.2483*	.08700	1.657E-7	-1.4451	-1.0515

Based on observed means.

The error term is Mean Square(Error) = ,023.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

a_Warna

	Tween	N	Subset		
			1	2	3
Duncan ^{a,b}	0,5 persen	6	2.1867		
	1,5 persen	6		2.6000	
	1 persen	6			3.8483
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,023.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: a_Warna

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound
LSD	5 gram	10 gram	-.0367	.08700	.683	-.2335	.1601
		15 gram	-.0533	.08700	.555	-.2501	.1435
	10 gram	5 gram	.0367	.08700	.683	-.1601	.2335
		15 gram	-.0167	.08700	.852	-.2135	.1801
	15 gram	5 gram	.0533	.08700	.555	-.1435	.2501
		10 gram	.0167	.08700	.852	-.1801	.2135

Based on observed means.

The error term is Mean Square(Error) = ,023.

Homogeneous Subsets

a_Warna

	Dekstrin	N	Subset
			1
Duncan ^{a,b}	5 gram	6	2.8483
	10 gram	6	2.8850
	15 gram	6	2.9017
	Sig.		.572

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,023.

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

b. Alpha = ,05.

3.12 Warna (b)

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
Tween	1	0,5 persen	6
	2	1 persen	6
	3	1,5 persen	6

Dekstrin	1	5 gram	6
	2	10 gram	6
	3	15 gram	6

Descriptive Statistics

Dependent Variable: b_Warna

Tween	Dekstrin	Mean	Std. Deviation	N
0,5 persen	5 gram	3.0950	.14849	2
	10 gram	5.8650	.07778	2
	15 gram	3.7600	.25456	2
	Total	4.2400	1.30054	6
1 persen	5 gram	5.4300	.62225	2
	10 gram	7.0850	.27577	2
	15 gram	8.1350	.16263	2
	Total	6.8833	1.25926	6
1,5 persen	5 gram	3.8500	.12728	2
	10 gram	2.3400	.18385	2
	15 gram	4.8150	.00707	2
	Total	3.6683	1.12024	6
Total	5 gram	4.1250	1.10495	6
	10 gram	5.0967	2.20916	6
	15 gram	5.5700	2.04656	6
	Total	4.9306	1.84647	18

Levene's Test of Equality of Error Variances^a

Dependent Variable: b_Warna

F	df1	df2	Sig.
.	8	9	.

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Tween + Dekstrin + Tween

* Dekstrin

Tests of Between-Subjects Effects

Dependent Variable: b_Warna

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	57.328 ^a	8	7.166	101.943	6.451E-8
Intercept	437.587	1	437.587	6,225.055	4.272E-14
Tween	35.300	2	17.650	251.090	1.275E-8
Dekstrin	6.512	2	3.256	46.322	1.829E-5
Tween * Dekstrin	15.515	4	3.879	55.180	2.483E-6
Error	.633	9	.070		
Total	495.548	18			
Corrected Total	57.961	17			

a. R Squared = ,989 (Adjusted R Squared = ,979)

Post Hoc Test

Tween

Multiple Comparisons

Dependent Variable: b_Warna

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Tween	(J) Tween				Lower Bound	Upper Bound
LSD	0,5 persen	1 persen	-2.6433*	.15307	3.302E-8	-2.9896	-2.2971
		1,5 persen	.5717*	.15307	.005	.2254	.9179
	1 persen	0,5 persen	2.6433*	.15307	3.302E-8	2.2971	2.9896
		1,5 persen	3.2150*	.15307	5.895E-9	2.8687	3.5613
	1,5 persen	0,5 persen	-.5717*	.15307	.005	-.9179	-.2254
		1 persen	-3.2150*	.15307	5.895E-9	-3.5613	-2.8687

Based on observed means.

The error term is Mean Square(Error) = ,070.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

b_Warna

	Tween	N	Subset		
			1	2	3
Duncan ^{a,b}	1,5 persen	6	3.6683		
	0,5 persen	6		4.2400	
	1 persen	6			6.8833

	Sig.		1.000	1.000	1.000
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Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,070.

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

b. Alpha = ,05.

Dekstrin

Multiple Comparisons

Dependent Variable: b_Warna

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) Dekstrin	(J) Dekstrin				Lower Bound	Upper Bound
LSD	5 gram	10 gram	-.9717 [*]	.15307	.000	-1.3179	-.6254
		15 gram	-1.4450 [*]	.15307	5.769E-6	-1.7913	-1.0987
	10 gram	5 gram	.9717 [*]	.15307	.000	.6254	1.3179
		15 gram	-.4733 [*]	.15307	.013	-.8196	-.1271
	15 gram	5 gram	1.4450 [*]	.15307	5.769E-6	1.0987	1.7913
		10 gram	.4733 [*]	.15307	.013	.1271	.8196

Based on observed means.

The error term is Mean Square(Error) = ,070.

*. The mean difference is significant at the ,05 level.

Homogeneous Subsets

b_Warna

	Dekstrin	N	Subset		
			1	2	3
Duncan ^{a,b}	5 gram	6	4.1250	5.0967	5.5700
	10 gram	6			
	15 gram	6			
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,070.

- a. Uses Harmonic Mean Sample Size = 6,000.
- b. Alpha = ,05.

Pertanyaan :

- 1. Henjelia : mengapa bahan di mixer selama 20 menit? Berapa RPM yang digunakan?

Jawab : karena untuk memaksimalkan busa yang dihasilkan dari tween 80 dan bahan pun tercampur sempurna pada waktu 20 menit. Untuk RPM yang digunakan yaitu sekitar 200 RPM.

- 2. Budi : kenapa memilih metode foam mat drying?

Jawab : karena efisiensi biaya pada saat penelitian dan juga metode yang mungkin dilakukan pada lab instiper adalah foam mat drying

- 3. jimmy : apa fungsi penambahan tween 80?

Jawab : tween 80 berfungsi sebagai pembusa pada bahan dimana busa tersebut berfungsi sebagai penjaga atau melindungi bahan pada saat proses pengeringan sehingga kandungan bahan tetap terjaga setelah menjadi serbuk

4. Saswati : apa kekurangan metode foam mat drying?

Jawab : kekurangan nya adalah waktu yang dibutuhkan sangat lama yaitu berkisar 6-7 jam pada proses pengeringan. Selain itu serbuk yang dihasilkan cukup sedikit yang dibuktikan pada analisis rendemen.

5. Sofran : Kendala apa saja saat penelitian?

Jawab : banyak kendala mulai dari pengiriman bahan, proses pencampuran bahan yang tidak merata, komposisi bahan tambahan yang tidak tepat, waktu dan suhu pengeringan.

6. Amsalinus : apakah produk saudara sudah sesuai dengan SNI?

Jawab : pada SNI Kadar air menunjukan range SNI kadar air minuman serbuk berkisar antara 3-5 % yang artinya produk ini sudah sesuai dengan SNI