

**Lampiran 11.** Hasil Analisis Warna

a. Warna L\* (Lightness)

1. Data nilai profile warna L\* (*Lightness*) Nata de pina konsentrasi sari tauge

Perlakuan	Ulangan			Total	Rata-rata
	1	2	3		
T1	56.33	57.42	58.00	171.75	57.25
T2	56.66	53.91	52.33	162.9	54.30
T3	51.9	53.28	52.84	158.02	52.67
T4	52.06	52.47	53.22	157.75	52.58
T5	51.05	51.7	51.73	154.48	51.49
T6	50.87	50.93	48.72	150.52	50.17
T7	48.46	54.70	45.74	148.9	49.63
Total	367.33	374.41	362.58	1104.32	

2. Analisis ragam

➤ Faktor Koreksi (FK)

$$= \frac{(11049.32)^2}{7.3}$$

$$= 58072.51$$

➤ Jumlah Kuadrat (JK)

$$JK_{Total} = \sum_{i=1}^c \sum_{j=1}^e \sum_{k=1}^r Y_{ijk} - FK$$

$$= (56.33^2 + 57.42^2 + \dots + 45.74^2) - 58072.51 = 179.6919$$

$$JK_{kelompok} = \frac{\sum_{k=1}^r Y_{..k}^2}{PT} - FK$$

$$= \frac{(367.33^2 + 374.41^2 + 362.58^2)}{7} - 58072.5 = 10.12561$$

$$JK_{perlakuan} = \frac{\sum_{i=1}^c \sum_{j=1}^e Y_{ij.}^2}{r} - FK$$

$$= \frac{(171.75^2 + 162.9^2 + \dots + 148.9^2)}{3} - 58072.5 = 121.2943$$

$$JK_{galat} = JK_{total} - JK_{kelompok} - JK_{perlakuan}$$

$$= 179.692 - 10.1256 - 121.294 = 48.2719$$

➤ Kuadrat Tengah (KT)

$$KT = \frac{JK_x}{dbx}$$

➤ F Hitung

$$F_{hitung} = \frac{KT_x}{KT_{galat}}$$

Tabel analisis ragam

S.K (Sumber Keragaman)	d.b.	J.K.	K.T.	F hitung	F tabel		Keterangan
					0,01	0,05	
Kelompok	2	10.12561	5.062805	1.258571	6.926608	3.885294	tn
Perlakuan	6	121.2943	20.21572	5.025461	4.820574	2.99612	**
Galat	12	48.27192	4.02266				
Total	20	179.6919					

Keterangan: tn (tidak nyata)

\*\* (sangat nyata)

## 3. Uji Tabel BNJ 5%

$$\begin{aligned}
 BNJ_5 &= Q_{5(p:db_{Galat})} \times \sqrt{\frac{KTG}{r}} \\
 &= 4,95 \times \sqrt{\frac{4.02266}{3}} \\
 &= 5.73
 \end{aligned}$$

b. Hasil analisis a\* (*Redness*)1. Data nilai *Redness* Nata de pina konsentrasi sari tauge

Perlakuan	Ulangan			Total	Rata-rata
	1	2	3		
T1	0.05	0.20	0.74	0.99	0.33
T2	1.01	1.82	0.53	3.36	1.12
T3	1.30	1.20	1.38	3.88	1.29
T4	1.33	1.4	1.44	4.17	1.39
T5	3.02	3.06	3.21	9.29	3.10
T6	3.16	3.63	3.16	9.95	3.32
T7	3.36	4.21	4.27	11.84	3.95
Total	13.23	15.52	14.73	43.48	

## 2. Analisis ragam

## ➤ Faktor Koreksi (FK)

$$= \frac{(43.48)^2}{7.3}$$

$$= 90.0243$$

## ➤ Jumlah Kuadrat (JK)

$$JK_{Total} = \sum_{i=1}^c \sum_{j=1}^e \sum_{k=1}^r Y_{ijk}^2 - FK$$

$$= (0.05^2 + 0.20^2 + \dots + 4.27^2) - 90.0243 = 35.1989$$

$$JK_{kelompok} = \frac{\sum_{k=1}^r Y_{..k}^2}{PT} - FK$$

$$= \frac{(13.23^2 + 15.52^2 + 14.73^2)}{7} - 90.0243 = 0.386581$$

$$JK_{perlakuan} = \frac{\sum_{i=1}^c \sum_{j=1}^e Y_{ij.}^2}{r} - FK$$

$$= \frac{(0.99^2 + 3.36^2 + \dots + 11.84^2)}{3} - 90.0243 = 33.37743$$

$$JK_{galat} = JK_{total} - JK_{kelompok} - JK_{perlakuan}$$

$$= 35.1989 - 0.38658 - 33.3774 = 1.43489$$

## ➤ Kuadrat Tengah (KT)

$$KT = \frac{JK_x}{dbx}$$

$$F_{hitung} = \frac{KT_x}{KT_{galat}}$$

Tabel analisis ragam

S.K (Sumber Keragaman)	d.b.	J.K.	K.T.	F hitung	F tabel		Keterangan
					0,05	0,01	
Kelompok	2	0.386581	0.19329	1.616495	6.926608	3.885294	tn
Perlakuan	6	33.37743	5.562905	46.52277	4.820574	2.99612	**
Galat	12	1.434886	0.119574				
Total	20	35.1989					

Keterangan : tn (tidak nyata)

\*(nyata)

\*\* (sangat nyata)

## 3. Uji Tabel BNJ 5%

$$BNJ_5 = Q_{5(p:db_{Galat})} \times \sqrt{\frac{KTG}{r}}$$

$$= 4,95 \times \sqrt{\frac{0.11957}{3}}$$

$$= 0.99$$

## c. Hasil analisis b\* (Yellowness)

1. Data nilai *Redness* Nata de pina konsentrasi sari tauge

Perlakuan	Ulangan			Total	Rata-Rata
	1	2	3		
T1	0,78	1,05	1,20	3,03	1,01
T2	0,90	1,40	1,14	3,44	1,15
T3	0,48	1,48	1,82	3,78	1,26
T4	1,80	3,52	1,46	6,78	2,26
T5	4,59	4,06	4,99	13,64	4,55
T6	5,21	6,11	5,17	16,49	5,50
T7	5,74	7,41	7,50	20,65	6,88
Total	19,5	25,03	23,28	67,81	

## 2. Analisis ragam

## ➤ Faktor Koreksi (FK)

$$= \frac{(43.48)^2}{7.3}$$

$$= 218.9617$$

## ➤ Jumlah Kuadrat (JK)

$$JK_{Total} = \sum_{i=1}^c \sum_{j=1}^e \sum_{k=1}^r Y_{ijk}^2 - FK$$

$$= (0.78^2 + 1.05^2 + \dots + 7.50^2) - 218.9617 = 109.5166$$

$$JK_{kelompok} = \frac{\sum_{k=1}^r Y_{..k}^2}{PT} - FK$$

$$= \frac{(19.5^2 + 25.03^2 + 23.28^2)}{7} - 218.9617 = 2.282467$$

$$JK_{perlakuan} = \frac{\sum_{i=1}^c \sum_{j=1}^e Y_{ij.}^2}{r} - FK$$

$$= \frac{(3.03^2 + 3.44^2 + \dots + 20.65^2)}{3} - 218.9617 = 102.9261$$

$$JK_{galat} = JK_{total} - JK_{kelompok} - JK_{perlakuan}$$

$$= 109.5166 - 2.282467 - 102.9261 = 4.308$$

## ➤ Kuadrat Tengah (KT)

$$KT = \frac{JK_x}{db_x}$$

$$F_{hitung} = \frac{KT_x}{KT_{galat}}$$

Tabel analisis ragam

S.K (Sumber Keragaman)	d.b.	J.K.	K.T.	F hitung	F tabel		Keterangan
					0.01	0.05	
Kelompok	2	2.282467	1.141233	3.178923	6.926608	3.885294	tn
Perlakuan	6	102.9261	17.15435	47.78371	4.820574	2.99612	**
Galat	12	4.308	0.359				
Total	20	109.5166					

Keterangan : tn (tidak nyata)

\*(nyata)

\*\* (sangat nyata)

## 3. Uji Tabel BNJ 5%

$$\begin{aligned}
 BNJ_5 &= Q_{5(p:db_{Galat})} \times \sqrt{\frac{KTG}{r}} \\
 &= 4,95 \times \sqrt{\frac{0.346}{3}} \\
 &= 1.71
 \end{aligned}$$

**Lampiran 12.** Hasil Analisis Ketebalan

## 1. Data nilai ketebalan nata de pina konsentrasi sari tauge

Perlakuan	Ulangan			Total	Rata-Rata
	1	2	3		
T1	2.4	1.9	1.7	6	2.00
T2	2.2	2.1	2	6.3	2.10
T3	2.5	2.1	1.9	6.5	2.17
T4	3.8	3	2.6	9.4	3.13
T5	3.4	3.1	3.6	10.1	3.37
T6	3.8	3.4	3.3	10.5	3.50
T7	4.1	3.9	3.4	11.4	3.80
Total	22.2	19.5	18.5	60.2	

## 2. Analisis ragam

## ➤ Faktor Koreksi (FK)

$$= \frac{(16.79)^2}{7.3}$$

$$= 172.5733$$

## ➤ Jumlah Kuadrat (JK)

$$JK_{Total} = \sum_{i=1}^c \sum_{j=1}^e \sum_{k=1}^r Y_{ijk}^2 - FK$$

$$= (2.4^2 + 1.9^2 + \dots + 3.4^2) - 172.5733 = 12.00667$$

$$JK_{kelompok} = \frac{\sum_{k=1}^r Y_{..k}^2}{PT} - FK$$

$$= \frac{(22.2^2 + 19.5^2 + 18.5^2)}{7} - 172.5733 = 1.046667$$

$$JK_{perlakuan} = \frac{\sum_{i=1}^c \sum_{j=1}^e Y_{ij.}^2}{r} - FK$$

$$= \frac{(6^2 + 6.3^2 + \dots + 11.4^2)}{3} - 172.5733 = 10.26667$$

$$JK_{galat} = JK_{total} - JK_{kelompok} - JK_{perlakuan}$$

$$= 12.00667 - 1.046667 - 10.26667 = 0.693333$$

## ➤ Kuadrat Tengah (KT)

$$KT = \frac{JK_x}{dbx}$$

## ➤ F Hitung

$$F_{hitung} = \frac{KT_x}{KT_{galat}}$$

Tabel analisis ragam

S.K (Sumber Keragaman)	D.B.	J.K.	K.T.	F Hitung	F Tabel		Keterangan
					0.01	0.05	
Kelompok	2	1.0466667	0.5233333	9.0576923	6.9266081	3.8852938	**
Perlakuan	6	10.266667	1.7111111	29.615385	4.8205735	2.9961204	**
Galat	12	0.6933333	0.0577778				
Total	20	12.006667					

Keterangan:

\*\* (sangat nyata)

3. Uji Tabel BNJ 5%

$$\begin{aligned}
 BNJ_5 &= Q_{5(p:db_{Galat})} \times \sqrt{\frac{KTG}{r}} \\
 &= 4,95 \times \sqrt{\frac{0.14}{3}} \\
 &= 0.69
 \end{aligned}$$



**Lampiran 13.** Hasil Analisis Berat

## 1. Data nilai berat nata de pina konsentrasi sari tauge

Perlakuan	Ulangan			Total	Rata-Rata
	1	2	3		
T1	186.61	187.14	187.29	561.04	187.01
T2	204.57	201.77	197.12	603.46	201.15
T3	209.98	203.31	199.75	613.04	204.35
T4	243.3	230.61	228.86	702.77	234.26
T5	255.52	253.62	253.05	762.19	254.06
T6	265.01	261.79	259.03	785.83	261.94
T7	273.73	266.46	261.2	801.39	267.13
<b>Total</b>	1638.72	1604.7	1586.3	<b>4829.72</b>	

## 2. Analisis ragam

## ➤ Faktor Koreksi (FK)

$$= \frac{(16.79)^2}{7.3}$$

$$= 1110771.2$$

## ➤ Jumlah Kuadrat (JK)

$$JK_{Total} = \sum_{i=1}^c \sum_{j=1}^e \sum_{k=1}^r Y_{ijk}^2 - FK$$

$$= (2.4^2 + 1.9^2 + \dots + 3.4^2) - 1110771.2 = 19309.912$$

$$JK_{kelompok} = \frac{\sum_{k=1}^r Y_{..k}^2}{PT} - FK$$

$$= \frac{(22.2^2 + 19.5^2 + 18.5^2)}{7} - 1110771.2 = 202.08461$$

$$JK_{perlakuan} = \frac{\sum_{i=1}^c \sum_{j=1}^e Y_{ij.}^2}{r} - FK$$

$$= \frac{(6^2 + 6.3^2 + \dots + 11.4^2)}{3} - 1110771.2 = 19002.758$$

$$JK_{galat} = JK_{total} - JK_{kelompok} - JK_{perlakuan}$$

$$= 19309.912 - 202.08461 - 19002.758 = 105.06939$$

## ➤ Kuadrat Tengah (KT)

$$KT = \frac{JK_x}{dbx}$$

## ➤ F Hitung

$$F_{hitung} = \frac{KT_x}{KT_{galat}}$$

Tabel analisis ragam

S.K (Sumber Keragaman)	d.b.	J.K.	K.T.	F hitung	F tabel		Keterangan
					0.01	0.05	
KELOMPOK	2	202.08461	101.0423	11.540066	6.9266081	3.8852938	**
PERLAKUAN	6	19002.758	3167.1263	361.71825	4.8205735	2.9961204	**
GALAT	12	105.06939	8.7557825				
TOTAL	20	19309.912					

Keterangan:

\*\* (sangat nyata)

3. Uji Tabel BNJ 5%

$$\begin{aligned}
 BNJ_5 &= Q_{5(p:db_{Galat})} \times \sqrt{\frac{KTG}{r}} \\
 &= 4,95 \times \sqrt{\frac{1,71}{3}} \\
 &= 8,46
 \end{aligned}$$