

LAMPIRAN DATA

Data Uji Organoleptik

No	Aroma				Warna				Jumlah	Rata-rata
	p1	p2	p3	p4	p1	p2	p3	p4		
1	3	5	4	5	3	3	4	5	32	4.00
2	4	3	3	4	3	4	3	5	29	3.63
3	5	5	5	5	4	5	5	5	39	4.88
4	4	5	4	5	5	4	4	5	36	4.50
5	4	5	4	5	5	4	4	5	36	4.50
6	3	4	5	5	5	3	5	5	35	4.38
7	4	4	4	5	2	3	4	5	31	3.88
8	3	3	4	5	3	4	5	5	32	4.00
9	3	3	5	5	4	3	4	5	32	4.00
10	3	4	4	5	3	3	5	4	31	3.88
11	3	4	4	5	4	4	5	5	34	4.25
12	3	4	5	5	3	4	5	4	33	4.13
13	4	3	5	5	3	3	5	4	32	4.00
14	2	4	5	5	3	4	5	5	33	4.13
15	4	4	4	4	4	5	5	5	35	4.38
16	4	5	4	4	5	3	4	5	34	4.25
17	4	5	5	5	3	4	5	5	36	4.50
18	4	5	4	4	3	3	4	3	30	3.75
19	5	5	5	4	5	5	4	5	38	4.75
20	5	4	4	5	5	5	5	5	38	4.75
Jumlah	74	84	87	95	75	76	90	95	676	84.50
Rata-rata	3.70	4.20	4.35	4.75	3.75	3.80	4.50	4.75	33.80	4.23

UJI ANOVA

AROMA

Data Penilaian

No	Aroma				Jumlah	Rata-rata
	p1	p2	p3	p4		
1	3	5	4	5	17	4.25
2	4	3	3	4	14	3.50
3	5	5	5	5	20	5.00
4	4	5	4	5	18	4.50
5	4	5	4	5	18	4.50
6	3	4	5	5	17	4.25
7	4	4	4	5	17	4.25
8	3	3	4	5	15	3.75
9	3	3	5	5	16	4.00
10	3	4	4	5	16	4.00
11	3	4	4	5	16	4.00
12	3	4	5	5	17	4.25
13	4	3	5	5	17	4.25
14	2	4	5	5	16	4.00
15	4	4	4	4	16	4.00
16	4	5	4	4	17	4.25
17	4	5	5	5	19	4.75
18	4	5	4	4	17	4.25
19	5	5	5	4	19	4.75
20	5	4	4	5	18	4.50
Jumlah	74	84	87	95	340	85.00
Rata-rata	3.70	4.20	4.35	4.75	17	4.25

Keterangan:

Jumlah perlakuan (t) = 4

Total pengamatan

$$\begin{aligned}(N) &= n \times t \\ &= 20 \times 4 \\ &= 80\end{aligned}$$

Faktor Koreksi (FK)

$$\begin{aligned}FK &= GT^2 / N \\ &= 340^2 / 80 \\ &= 115.600 / 80 \\ &= 1.445,0000\end{aligned}$$

Jumlah Kuadrat Total (JKT)

$$\begin{aligned}JKT &= \Sigma(X_{ij}^2) - FK \\ &= 1.490 - 1.445 \\ &= 45,0000\end{aligned}$$

Jumlah Kuadrat Perlakuan (JKP)

$$\begin{aligned}JKP &= \Sigma(T_i^2/n) - FK \\ &= (74^2/20 + 84^2/20 + 87^2/20 + 95^2/20) - 1.445 \\ &= (273,8 + 352,8 + 378,45 + 451,25) - 1.445 \\ &= 1.456,30 - 1.445 \\ &= 11,3000\end{aligned}$$

Jumlah Kuadrat Galat (JKG)

$$\begin{aligned}JKG &= JKT - JKP \\ &= 45,0000 - 11,3000 \\ &= 33,7000\end{aligned}$$

Derajat Bebas (db)

$$\text{db Perlakuan} = t - 1$$

$$= 4 - 1$$

$$= 3$$

$$\text{db Galat} = N - t$$

$$= 80 - 4$$

$$= 76$$

$$\text{db Total} = N - 1$$

$$= 80 - 1$$

$$= 79$$

Kuadrat Tengah (KT)

$$\text{KT Perlakuan (KTP)} = \text{JKP} / \text{db Perlakuan}$$

$$= 11,3000 / 3$$

$$= 3,7667$$

$$\text{KT Galat (KTG)} = \text{JKG} / \text{db Galat}$$

$$= 33,7000 / 76$$

$$= 0,4434$$

F Hitung

$$\text{F hitung} = \text{KTP} / \text{KTG}$$

$$= 3,7667 / 0,4434$$

$$= 8,4946$$

F Tabel

$$\text{F tabel 5\% (db1=3, db2=76)} = 2,72$$

$$\text{F tabel 1\% (db1=3, db2=76)} = 4,04$$

$$\text{F hitung (8,4946)} > \text{F tabel 1\% (4,04)}$$

Tabel Anova

Sumber Keragaman	Db	JK	KT	F hit	F tab 5%	F tab 1%
Perlakuan	3	11.30	3.7667	8.4946**	2.72	4.04
Galat	76	33.70	0.4434	-	-	-
Total	79	45.00	-	-	-	-

Keterangan: ** = berbeda sangat nyata (F hitung > F tabel 1%)

UJI LANJUT BNT 5%

Rumus bnt

$$BNT \alpha = t(\alpha, db \text{ galat}) \times \sqrt{(2 \times KTG / n)}$$

di mana:

$t(\alpha, db \text{ galat})$ = nilai t tabel pada taraf α dan db galat

KTG = Kuadrat Tengah Galat

n = jumlah ulangan / panelis per perlakuan

Nilai BNT 5%

$$\begin{aligned}
 BNT 5\% &= t(0,05; 76) \times \sqrt{(2 \times KTG / n)} \\
 &= 1,992 \times \sqrt{(2 \times 0,4434 / 20)} \\
 &= 1,992 \times \sqrt{(0,04434)} \\
 &= 1,992 \times 0,2106 \\
 &= 0,4195
 \end{aligned}$$

HASIL UJI BNT 5%

Perbandingan	Selisih Rata-rata	Perbedaan	BNT 5% = 0.4195
p4 - p1	4.75 - 3.70	1.0500	> 0.4195*
p4 - p2	4.75 - 4.20	0.5500	> 0.4195*

p4 - p3	4.75 - 4.35	0.4000	< 0.4195tn
p3 - p1	4.35 - 3.70	0.6500	> 0.4195*
p3 - p2	4.35 - 4.20	0.1500	< 0.4195tn
p2 - p1	4.20 - 3.70	0.5000	> 0.4195*

Keterangan: * = berbeda nyata (selisih > BNT 5% = 0,4195);

tn = tidak berbeda nyata

NOTASI

Perlakuan	Rata-rata Skor Aroma
p1	3.70 a
p2	4.20 b
p3	4.35 b
p4	4.75 c

Keterangan: Angka/huruf yang sama pada kolom notasi menunjukkan tidak berbeda nyata pada uji BNT 5%.

WARNA

Data Penilaian

No	Warna				Jumlah	Rata-rata
	p1	p2	p3	p4		
1	3	3	4	5	15	3.75
2	3	4	3	5	15	3.75
3	4	5	5	5	19	4.75
4	5	4	4	5	18	4.5
5	5	4	4	5	18	4.5
6	5	3	5	5	18	4.5
7	2	3	4	5	14	3.5
8	3	4	5	5	17	4.25
9	4	3	4	5	16	4
10	3	3	5	4	15	3.75
11	4	4	5	5	18	4.5
12	3	4	5	4	16	4
13	3	3	5	4	15	3.75
14	3	4	5	5	17	4.25
15	4	5	5	5	19	4.75
16	5	3	4	5	17	4.25
17	3	4	5	5	17	4.25
18	3	3	4	3	13	3.25
19	5	5	4	5	19	4.75
20	5	5	5	5	20	5
Jumlah	75	76	90	95	336	84
Rata-rata	3.75	3.8	4.5	4.75	16.8	4.2

Keterangan :

Jumlah perlakuan (t) = 4

Total pengamatan

$$\begin{aligned}(N) &= n \times t \\ &= 20 \times 4 \\ &= 80\end{aligned}$$

Faktor Koreksi (FK)

$$\begin{aligned}FK &= GT^2 / N \\ &= (336)^2 / 80 \\ &= 112896 / 80 \\ &= 1411.2000\end{aligned}$$

Kuadrat Total (JKT)

$$\begin{aligned}JKT &= \Sigma\Sigma(Y_{ij}^2) - FK \\ &= 1468.0000 - 1411.2000 \\ &= 56.8000\end{aligned}$$

Kuadrat Perlakuan (JKP)

$$\begin{aligned}JKP &= \Sigma(T_i^2/n) - FK \\ &= (75^2/20 + 76^2/20 + 90^2/20 + 95^2/20) - 1411.2000 \\ &= (281.2500 + 288.8000 + 405.0000 + 451.2500) - 1411.2000 \\ &= 1426.3000 - 1411.2000 \\ &= 15.1000\end{aligned}$$

Kuadrat Galat (JKG)

$$\begin{aligned}JKG &= JKT - JKP \\ &= 56.8000 - 15.1000 \\ &= 41.7000\end{aligned}$$

Derajat Bebas (DB)

$$\begin{aligned}DB \text{ Perlakuan} &= t - 1 \\ &= 4 - 1\end{aligned}$$

$$= 3$$

$$\begin{aligned}\text{DB Galat} &= N - t \\ &= 80 - 4 \\ &= 76\end{aligned}$$

$$\begin{aligned}\text{DB Total} &= N - 1 \\ &= 80 - 1 \\ &= 79\end{aligned}$$

Kuadrat Tengah (KT)

$$\begin{aligned}\text{KT Perlakuan (KTP)} &= \text{JKP} / \text{dbP} \\ &= 15.1000 / 3 \\ &= 5.0333\end{aligned}$$

$$\begin{aligned}\text{KT Galat (KTG)} &= \text{JKG} / \text{dbG} \\ &= 41.7000 / 76 \\ &= 0.5487\end{aligned}$$

F Hitung

$$\begin{aligned}\text{F hitung} &= \text{KTP} / \text{KTG} \\ &= 5.0333 / 0.5487 \\ &= 9.17\end{aligned}$$

F Tabel

$$\text{F tabel 5\% (db1=3, db2=76)} = 2.73$$

$$\text{F tabel 1\% (db1=3, db2=76)} = 4.07$$

Tabel Anova

Sumber Keragaman	DB	JK	KT	F Hitung	F Tab 5%	F Tab 1%
Perlakuan	3	15.1000	5.0333	9.17**	2.73	4.07
Galat	76	41.7000	0.5487	-	-	-
Total	79	56.8000	-	-	-	-

Keterangan: ** = berbeda sangat nyata (F hitung > F tabel 1%)

UJI BNT 5%

$$\begin{aligned} \text{BNT}(\alpha) &= t(\alpha/2, \text{dbG}) \times \sqrt{(2KTG/n)} \\ &= 1.992 \times \sqrt{(2 \times 0.5487 / 20)} \\ &= 1.992 \times \sqrt{(0.0549)} \\ &= 1.992 \times 0.2342 \\ &= 0.4666 \end{aligned}$$

Hasil Uji BNT 5%

Perbandingan	Rata-rata A	Rata-rata B	Selisih (A-B)	BNT 5%
p1 - p2	3.75	3.80	0.0500	0.4666tn
p1 - p3	3.75	4.50	0.7500	0.4666*
p1 - p4	3.75	4.75	1.0000	0.4666*
p2 - p3	3.80	4.50	0.7000	0.4666*
p2 - p4	3.80	4.75	0.9500	0.4666*
p3 - p4	4.50	4.75	0.2500	0.4666tn

Keterangan: * = berbeda nyata; tn = tidak berbeda nyata

NOTASI

Perlakuan	Rata-rata
p1	3.75 a
p2	3.80 a
p3	4.50 b
p4	4.75 b

Keterangan: Huruf yang sama menunjukkan tidak berbeda nyata, huruf berbeda menunjukkan berbeda nyata pada BNT 5%.

LAMPIRAN GAMBAR



Buah kelapa



Pengupasan



Pencucian



Pemarutan



Penimbangan parutan



Pengukuran Suhu Air



Pengukuran air



pencampuran santan dan
air



Pemerasan santan



Penyaringan



Penyimpanan selama 1 jam



Pemishan air dan santan



Pengadukan



Pengukuran santan



Santan yang dihasilkan



Penyimpanan selama 24 jam



Setelah disimpan selama 24 jam



Penyaringan minyak



Penimbangan minyak



Minyak yang dihasilkan