

Lampiran 5

HASIL PERHITUNGAN DATA KESELURUHAN KARAKTERISTIK
VOLUME PENGEMBANGAN

Sampel	Kontrol		60%		70%		80%	
	V ₀ (ml)	V ₁ (ml)	V ₀ (ml)	V ₁ (ml)	V ₀ (ml)	V ₁ (ml)	V ₀ (ml)	V ₁ (ml)
1	6	15	6	13	6	12	6	10
2	6	12	6	14	6	13	6	11
3	6	15	6	12	6	12	6	11
Mean		14		13		12.3		10.7
Daya Kembang		133%		117%		106%		78%

Daya Kembang

Daya kembang merupakan perbandingan kenaikan volume sus kering dengan volume adonan awal.

$$\text{Daya Kembang} = \frac{\text{Volume sus kering} - \text{Volume adonan}}{\text{Volume adonan}} \times 100\%$$

Keterangan:

V₀ = Volume adonan

V₁ = Volume sus kering

1. Daya Kembang Kontrol

Nilai rata-rata dari volume sus kering yaitu V₁=14 ml, V₀= 6 ml

$$\begin{aligned} \text{Daya Kembang} &= \frac{\text{Volume sus kering} - \text{Volume adonan}}{\text{Volume adonan}} \times 100\% \\ &= \frac{14-6}{6} \times 100\% \\ &= 1,333 \times 100\% \\ &= 133\% \end{aligned}$$

2. Daya Kembang Penambahan Ikan Patin 60%

Nilai rata-rata dari volume sus kering yaitu, V₁=13 ml, V₀= 6 ml

$$\begin{aligned}
 \text{Daya Kembang} &= \frac{\text{Volume sus kering} - \text{Volume adonan}}{\text{Volume adonan}} \times 100\% \\
 &= \frac{13-6}{6} \times 100\% \\
 &= 1,17 \times 100\% \\
 &= 117\%
 \end{aligned}$$

3. Daya Kembang Penambahan Ikan Patin 70%

Nilai rata-rata dari volume sus kering yaitu, $V_1=12,3$ ml, $V_0= 6$ ml

$$\begin{aligned}
 \text{Daya Kembang} &= \frac{\text{Volume sus kering} - \text{Volume adonan}}{\text{Volume adonan}} \times 100\% \\
 &= \frac{12,3-6}{6} \times 100\% \\
 &= 1,06 \times 100\% \\
 &= 106\%
 \end{aligned}$$

4. Daya Kembang Penambahan Ikan Patin 80%

Nilai rata-rata dari volume sus kering yaitu, $V_1=10,67$ ml, $V_0= 6$ ml

$$\begin{aligned}
 \text{Daya Kembang} &= \frac{\text{Volume sus kering} - \text{Volume adonan}}{\text{Volume adonan}} \times 100\% \\
 &= \frac{10,67-6}{6} \times 100\% \\
 &= 0,78 \times 100\% \\
 &= 78\%
 \end{aligned}$$

Lampiran 6

ANOVA					
Volume Kembang					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.667	3	5.889	5.048	0.030
Within Groups	9.333	8	1.167		
Total	27.000	11			

Multiple Comparisons						
Dependent Variable:						
Tukey HSD						
(I) Persentase Patin		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol	Persentase 60%	1.000	0.882	0.681	-1.82	3.82
	Persentase 70%	1.667	0.882	0.304	-1.16	4.49
	Persentase 80%	3.333*	0.882	0.022	0.51	6.16
Persentase 60%	Kontrol	-1.000	0.882	0.681	-3.82	1.82
	Persentase 70%	0.667	0.882	0.872	-2.16	3.49
	Persentase 80%	2.333	0.882	0.110	-0.49	5.16
Persentase 70%	Kontrol	-1.667	0.882	0.304	-4.49	1.16
	Persentase 60%	-0.667	0.882	0.872	-3.49	2.16
	Persentase 80%	1.667	0.882	0.304	-1.16	4.49
Persentase 80%	Kontrol	-3.333*	0.882	0.022	-6.16	-0.51
	Persentase 60%	-2.333	0.882	0.110	-5.16	0.49
	Persentase 70%	-1.667	0.882	0.304	-4.49	1.16

*. The mean difference is significant at the 0.05 level

Tukey HSD ^a			
Persentase Patin	N	Subset for alpha = 0.05	
		1	2
Persentase 80%	3	10.67	
Persentase 70%	3	12.33	12.33
Persentase 60%	3	13.00	13.00
Kontrol	3		14.00
Sig.		0.110	0.304
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 3.000.			

Lampiran 7

HASIL PERHITUNGAN DATA KESELURUHAN KARAKTERISTIK
RONGGA DAN DIAMETER LUAR SUS KERING

- Rongga

Sampel	Kontrol (mm)	60% (mm)	70% (mm)	80% (mm)
1	20.6	19.6	14	14.8
2	20.8	19.2	13.7	14.5
3	20.3	19.3	15	13.3
Mean	20.6	19.4	14.2	14.2

- Diameter Luar

Sampel	Kontrol		60%		70%		80%	
	D ₀ (mm)	D ₁ (mm)	D ₀ (mm)	D ₁ (mm)	D ₀ (mm)	D ₁ (mm)	D ₀ (mm)	D ₁ (mm)
1	26	26.9	26	25.4	26	23.6	26	24.9
2	26	27.4	26	25.4	26	25.6	26	24.9
3	26	27	26	24.8	26	25.4	26	24.6
Mean		27.1		25.2		24.9		24.8

Lampiran 8

ANOVA					
rongga					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	101.349	3	33.783	112.610	0.000
Within Groups	2.400	8	0.300		
Total	103.749	11			

Multiple Comparisons							
Dependent Variable:							
(I) Persentase Patin			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Kontrol	Persentase 60%	1.2000	0.4472	0.104	-0.232	2.632
		Persentase 70%	6.3333*	0.4472	0.000	4.901	7.765
		Persentase 80%	6.3667*	0.4472	0.000	4.935	7.799
	Persentase 60%	Kontrol	-1.2000	0.4472	0.104	-2.632	0.232
		Persentase 70%	5.1333*	0.4472	0.000	3.701	6.565
		Persentase 80%	5.1667*	0.4472	0.000	3.735	6.599
	Persentase 70%	Kontrol	-6.3333*	0.4472	0.000	-7.765	-4.901
		Persentase 60%	-5.1333*	0.4472	0.000	-6.565	-3.701
		Persentase 80%	0.0333	0.4472	1.000	-1.399	1.465
	Persentase 80%	Kontrol	-6.3667*	0.4472	0.000	-7.799	-4.935
		Persentase 60%	-5.1667*	0.4472	0.000	-6.599	-3.735
		Persentase 70%	-0.0333	0.4472	1.000	-1.465	1.399

*. The mean difference is significant at the 0.05 level.

rongga					
Persentase Patin		N	Subset for alpha = 0.05		
			1	2	3
Tukey HSD ^a	Persentase 80%	3	14.200		
	Persentase 70%	3	14.233		
	Persentase 60%	3		19.367	
	Kontrol	3		20.567	
	Sig.		1.000	0.104	
Duncan ^a	Persentase 80%	3	14.200		
	Persentase 70%	3	14.233		
	Persentase 60%	3		19.367	
	Kontrol	3			20.567
	Sig.		0.942	1.000	1.000
Means for groups in homogeneous subsets are displayed.					
a. Uses Harmonic Mean Sample Size = 3.000.					

Lampiran 9

ANOVA					
Diameter luar					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.220	3	3.073	50.521	0.000
Within Groups	0.487	8	0.061		
Total	9.707	11			

Dependent Variable: Diameter Luar							
(I) Persentase Patin			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Kontrol	Persentase 60%	1.9000*	0.2014	0.000	1.255	2.545
		Persentase 70%	1.6667*	0.2014	0.000	1.022	2.312
		Persentase 80%	2.3000*	0.2014	0.000	1.655	2.945
	Persentase 60%	Kontrol	-1.9000*	0.2014	0.000	-2.545	-1.255
		Persentase 70%	-0.2333	0.2014	0.667	-0.878	0.412
		Persentase 80%	0.4000	0.2014	0.269	-0.245	1.045
	Persentase 70%	Kontrol	-1.6667*	0.2014	0.000	-2.312	-1.022
		Persentase 60%	0.2333	0.2014	0.667	-0.412	0.878
		Persentase 80%	0.6333	0.2014	0.054	-0.012	1.278
	Persentase 80%	Kontrol	-2.3000*	0.2014	0.000	-2.945	-1.655
		Persentase 60%	-0.4000	0.2014	0.269	-1.045	0.245
		Persentase 70%	-0.6333	0.2014	0.054	-1.278	0.012

*. The mean difference is significant at the 0.05 level.

Diameter luar					
Persentase Patin		N	Subset for alpha = 0.05		
			1	2	3
Tukey HSD ^a	Persentase 80%	3	24.800		
	Persentase 60%	3	25.200		
	Persentase 70%	3	25.433		
	Kontrol	3		27.100	
	Sig.		0.054	1.000	
Duncan ^a	Persentase 80%	3	24.800		
	Persentase 60%	3	25.200	25.200	
	Persentase 70%	3		25.433	
	Kontrol	3			27.100
	Sig.		0.082	0.280	1.000
Means for groups in homogeneous subsets are displayed.					
a. Uses Harmonic Mean Sample Size = 3.000.					

Lampiran 10

**HASIL PERHITUNGAN DATA KESELURUHAN KARAKTERISTIK BERAT
SUS KERING**

Sampel	Kontrol (gr)		60% (gr)		70% (gr)		80% (gr)	
	W ₁	W ₂	W ₁	W ₂	W ₁	W ₂	W ₁	W ₂
1 s/d 3	3.3	1.3	3.3	1.3	3.3	1.4	3.3	1.4
Penyusutan (%)	60,6%		60,6%		57,6%		57.6%	

Penyusutan

Merupakan berkurangnya berat sus kering akibat proses pemasakan

$$SB = \frac{W_1 - W_2}{W_1} \times 100\%$$

Keterangan:

W₁ = Berat adonan sus kering

W₂ = Berat Sus kering setelah pemanggangan

1. Penyusutan Kontrol

Perhitungan penyusutan kontrol dengan W₁= 3,3 gr dan W₂ =1,3 gr

$$\begin{aligned}
 SB &= \frac{W_1 - W_2}{W_1} \times 100\% \\
 &= \frac{3,3-1,3}{3,3} \times 100\% \\
 &= 0,606 \times 100\% \\
 &= 60,6 \%
 \end{aligned}$$

2. Penyusutan Penambahan Ikan Patin 60%

Perhitungan penyusutan kontrol dengan W₁= 3,3 gr dan W₂=1,3 gr

$$\begin{aligned}
 SB &= \frac{W_1 - W_2}{W_1} \times 100\% \\
 &= \frac{3,3-1,3}{3,3} \times 100\% \\
 &= 0,606 \times 100\% \\
 &= 60,6 \%
 \end{aligned}$$

3. Penyusutan Penambahan Ikan Patin 70%

Perhitungan penyusutan kontrol dengan $W_1= 3,3$ gr dan $W_2=1,4$ gr

$$\begin{aligned}
 SB &= \frac{W_1 - W_2}{W_1} \times 100\% \\
 &= \frac{3,3-1,4}{3,3} \times 100\% \\
 &= 0,576 \times 100\% \\
 &= 57,6 \%
 \end{aligned}$$

4. Penyusutan Penambahan Ikan Patin 80%

Perhitungan penyusutan kontrol dengan $W_1= 3,3$ gr dan $W_2=1,4$ gr

$$\begin{aligned}
 SB &= \frac{W_1 - W_2}{W_1} \times 100\% \\
 &= \frac{3,3-1,4}{3,3} \times 100\% \\
 &= 0,576 \times 100\% \\
 &= 57,6 \%
 \end{aligned}$$

Perhitungan ANOVA

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.03	3	0.01	2.70432E+29	2.3267E-116	4.066180551
Within Groups	2.96E-31	8	3.7E-32			
Total	0.03	11				