

Lampiran 1.

Contoh kuesioner untuk pengujian ekstrudat.

Nama :

Tanggal :

Usia : th

Jenis kelamin : L/P

Anda diminta untuk menguji 4 macam produk di hadapan anda dan mengisi kolom di bawah ini dengan kode produk yang sesuai dengan pendapat anda. *Terima kasih.*

1.

Kesukaan	Kode produk
Amat sangat suka	
Sangat suka	
Cukup suka	
Sedikit suka	
Tidak keduanya	
Sedikit tidak suka	
Cukup tidak suka	
Sangat tidak suka	
Amat sangat tidak suka	

Keterangan :

2.

Aroma	Kode produk
Tidak tajam	
Sedikit tajam	
Cukup tajam	
Tajam	
Sangat tajam	

Keterangan :

3.

Rasa	Kode produk
Tidak kuat/hambar	
Sedikit kuat	
Cukup kuat	
Kuat	
Sangat kuat	

Keterangan :

4.

Tekstur (kerenyahan)	Kode produk
Tidak renyah	
Sedikit renyah	
Cukup renyah	
Renyah	
Sangat renyah	

Keterangan :

5.

Penampakan	Kode produk
Tidak menarik	
Sedikit menarik	
Cukup menarik	
Menarik	
Sangat menarik	

Keterangan :

Lampiran 32

Anova satu arah kadar gula pada ekstrudat rasa manis.

Variable GULA
By Variable WAKTAMB

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	1430,3056	476,7685	5,2062	,0048
Within Groups	32	2930,4444	91,5764		
Total	35	4360,7500			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	9	30,7778	11,1330	3,7110	22,2202 TO	39,3354
Grp 2	9	28,0000	5,3852	1,7951	23,8606 TO	32,1394
Grp 3	9	42,6667	10,5830	3,5277	34,5319 TO	50,8015
Grp 4	9	40,8889	10,0678	3,3559	33,1501 TO	48,6277
Total	36	35,5833	11,1621	1,8604	31,8066 TO	39,3601

GROUP	MINIMUM	MAXIMUM
Grp 1	20,0000	51,0000
Grp 2	22,0000	40,0000
Grp 3	30,0000	68,0000
Grp 4	32,0000	65,0000
TOTAL	20,0000	68,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,1981	3	32	,326

Multiple Range Tests: LSD test with significance level ,05
The difference between two means is significant if
MEAN(J)-MEAN(I) >= 6,7667 * RANGE * SQRT(1/N(I) + 1/N(J))
with the following value(s) for RANGE: 2,88

(*) Indicates significant differences which are shown in the lower triangle

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G G G G
r r r r
p p p p
2 1 4 3
    
```

Mean WAKTAMB

28,0000	Grp 2	
30,7778	Grp 1	
40,8889	Grp 4	* *
42,6667	Grp 3	* *

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1		
Group	Grp 2	Grp 1
Mean	28,0000	30,7778
Subset 2		
Group	Grp 4	Grp 3
Mean	40,8889	42,6667

Lampiran 2.

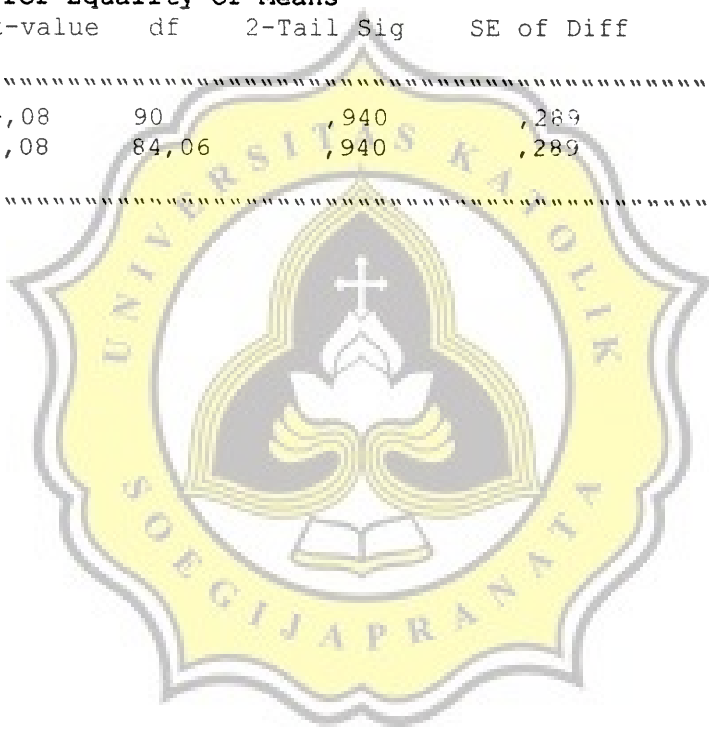
Uji T parameter kesukaan terhadap ekstrudat rasa manis.

Variable	Number of Cases	Mean	SD	SE of Mean
KESUKAAN				
PERLAK 1,	46	6,5652	1,186	,175
PERLAK 2,	46	6,5870	1,557	,230

Mean Difference = -,0217

Levene's Test for Equality of Variances: F= 3,325 P= ,072

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-,08	90	,940	,289	(-,595; ,552)
Unequal	-,08	84,06	,940	,289	(-,596; ,552)



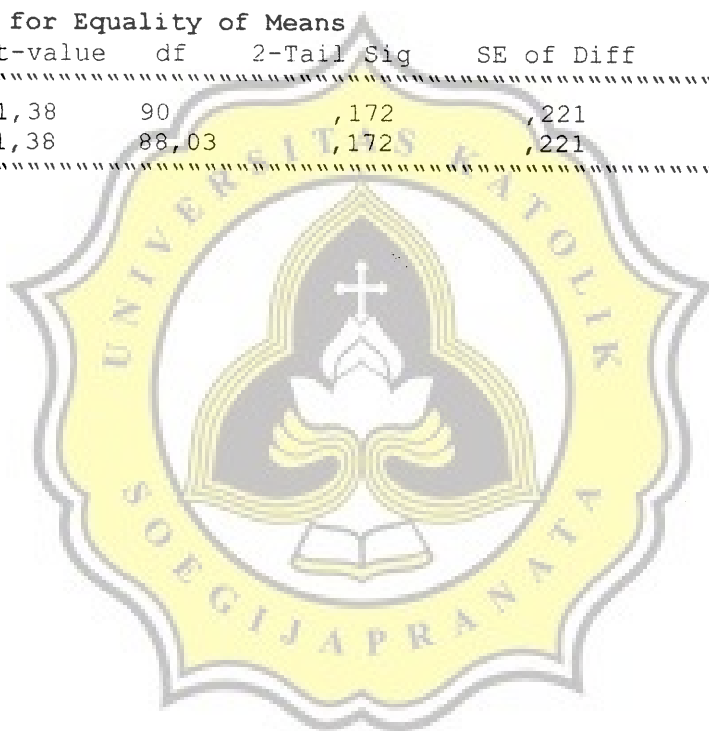
Lampiran 3.
Uji T parameter rasa terhadap ekstrudat rasa manis.

Variable	Number of Cases	Mean	SD	SE of Mean
RASA				
PERLAK 1,	46	2,9763	,977	,144
PERLAK 2,	46	2,6739	1,136	,168

Mean Difference = ,3043^b

Levene's Test for Equality of Variances: F= 6,529 P= ,012

t-test for Equality of Means						95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff	
Equal	1,38	90	,172	,221	(-,135; ,743)	
Unequal	1,38	88,03	,172	,221	(-,135; ,744)	



Lampiran 4.

Uji T parameter aroma terhadap ekstrudat rasa manis.

Variable	Number of Cases	Mean	SD	SE of Mean
AROMA				
PERLAK 1,	46	2,8478	,988	,146
PERLAK 2,	46	2,2174	1,031	,152

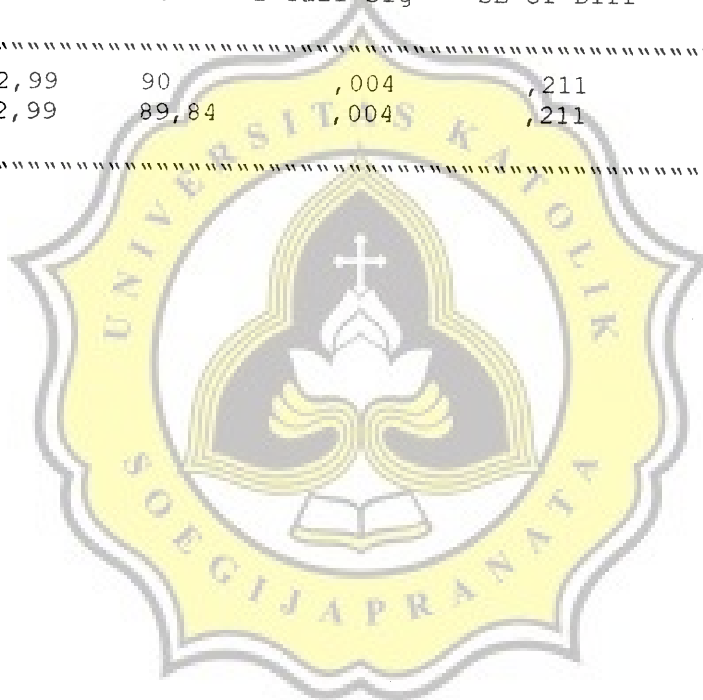
Mean Difference = ,6304

Levene's Test for Equality of Variances: F= ,375 P= ,542

t-test for Equality of Means

95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2,99	90	,004	,211	(,212; 1,049)
Unequal	2,99	89,84	,004	,211	(,212; 1,049)



Lampiran 5.

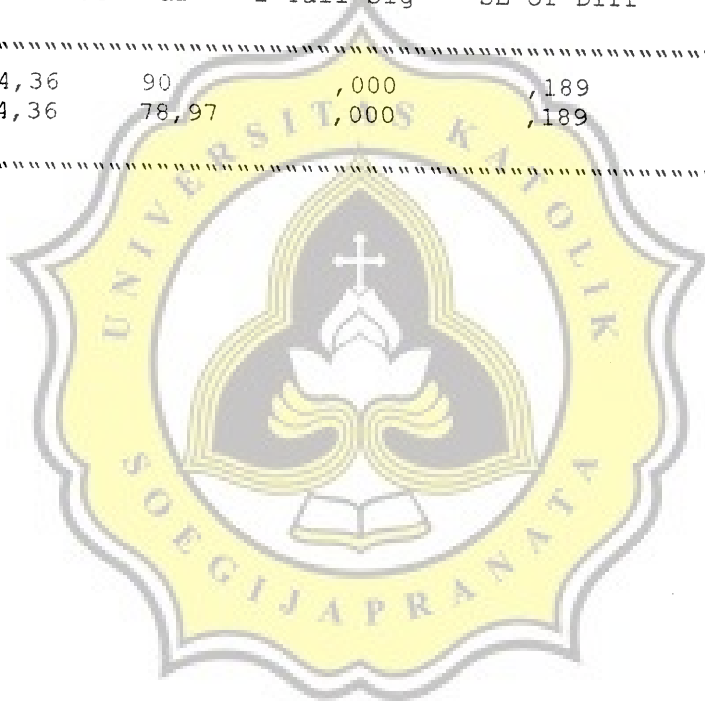
Uji T parameter tekstur terhadap ekstrudat rasa manis.

Variable	Number of Cases	Mean	SD	SE of Mean
TEKSTUR				
PERLAK 1,	46	3,8043	,719	,106
PERLAK 2,	46	2,9783	1,064	,157

Mean Difference = ,8261

Levene's Test for Equality of Variances: F= 3,174 P= ,078

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	4,36	90	,000	,189	(,450; 1,202)
Unequal	4,36	78,97	,000	,189	(,449; 1,203)



Lampiran 6.

Uji T parameter penampakan terhadap ekstrudat rasa manis.

Variable	Number of Cases	Mean	Std. Deviation	SE of Mean
PENAMPAK				
PERLAK 1,	41	2,4109	1,045	,154
PERLAK 2,	46	3,0217	1,256	,185
Mean Difference = -,6087				

Levene's Test for Equality of Variances: F= ,252 P= ,617

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-2,53	89	,013	,241	(-1,087; -
Unequal	-2,53	87,12	,013	,241	(-1,088; -



Lampiran 7.

Uji T parameter kesukaan terhadap ekstrudat rasa asin.

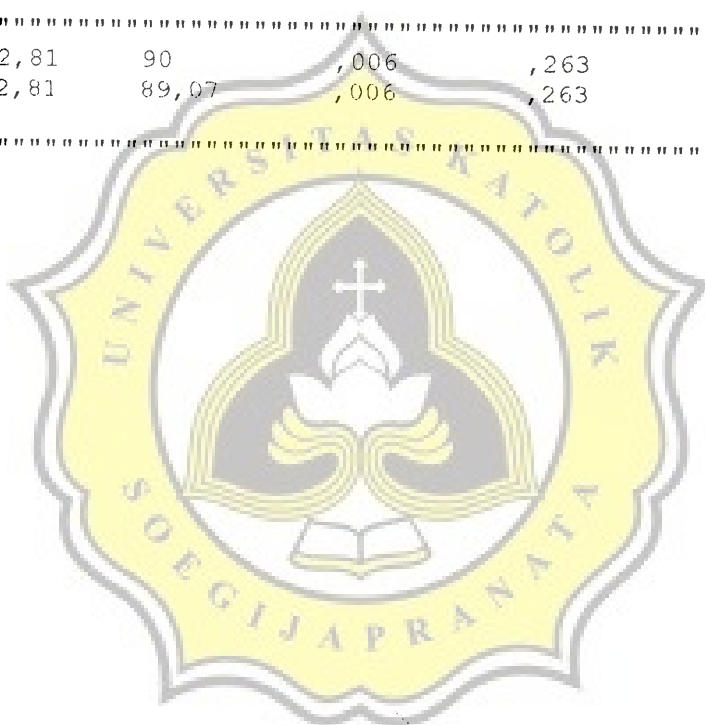
Variable	Number of Cases	Mean	SD	SE of Mean
KESUKAAN				
PERLAKUA 1,	46	6,7609	1,196	,176
PERLAKUA 2,	46	6,0217	1,325	,195

Mean Difference = ,7391

Levene's Test for Equality of Variances: F= ,139 P= ,710

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	2,81	90	,006	,263	(,216; 1,262)
Unequal	2,81	89,07	,006	,263	(,216; 1,262)



Lampiran 8.

Uji T parameter rasa terhadap ekstrudat rasa asin.

Variable	Number of Cases	Mean	SD	SE of Mean
RASA				
PERLAKUA 1,	46	2,8696	,980	,144
PERLAKUA 2,	46	3,1739	1,060	,156

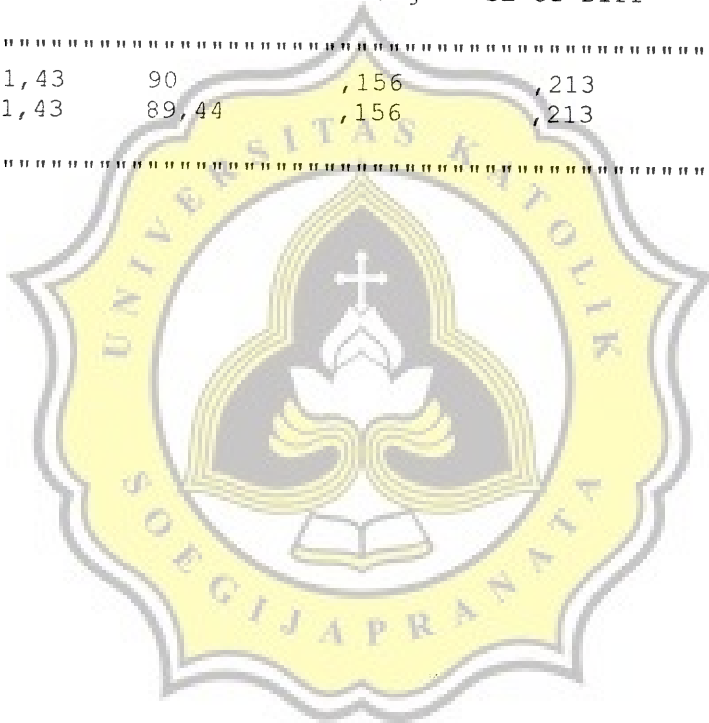
Mean Difference = -,3043

Levene's Test for Equality of Variances: F= ,178 P= ,674

t-test for Equality of Means

95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1,43	90	,156	,213	(-,727; ,119)
Unequal	-1,43	89,44	,156	,213	(-,727; ,119)



Lampiran 9.

Uji T parameter aroma terhadap ekstrudat rasa asin.

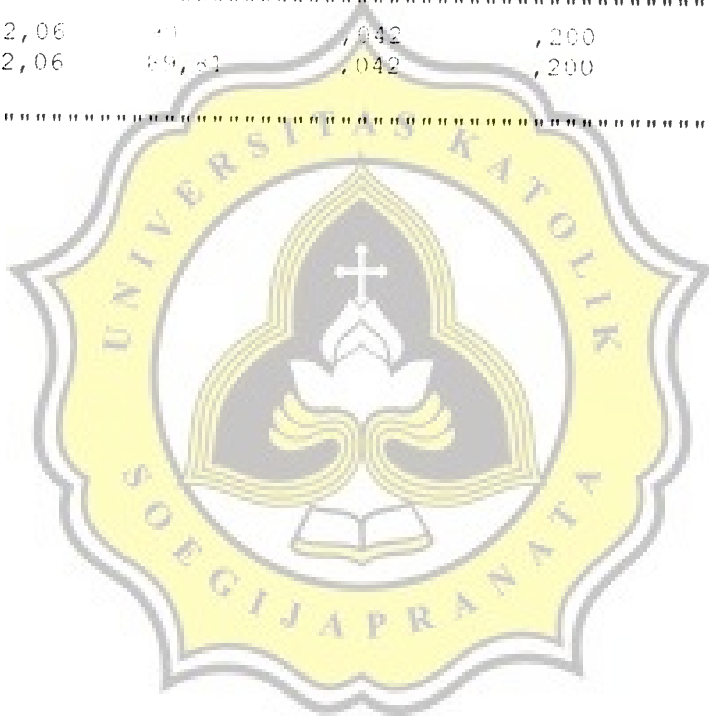
Variable	Number of Cases	Mean	SD	SE of Mean
AROMA				
PERLAKUA 1,	40	2,4130	,145	
PERLAKUA 2,	40	2,4130	,138	
Mean Difference = ,4130				

Levene's Test for Equality of Variances: F= ,399 P= ,529

t-test for Equality of Means

95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2,06	78	,042	,200	(,015; ,811)
Unequal	2,06	79,81	,042	,200	(,015; ,811)



Lampiran 10.

Uji T parameter tekstur terhadap ekstrudat rasa asin.

Variable	Number of Cases	Mean	SD	SE of Mean
TEKSTUR				
PERLAKUA 1,	46	3,3043	,986	,145
PERLAKUA 2,	46	2,9565	1,134	,167

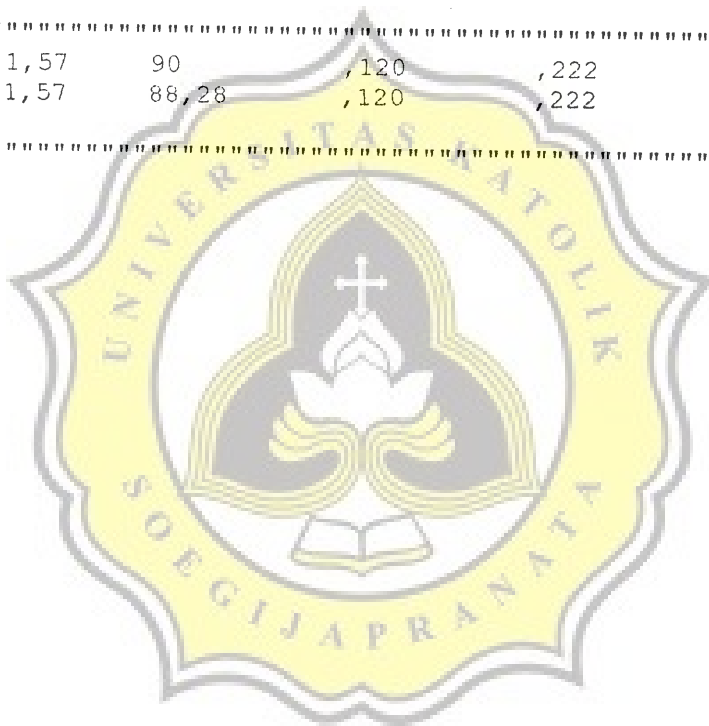
Mean Difference = ,3478

Levene's Test for Equality of Variances: F= ,346 P= ,558

t-test for Equality of Means

95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1,57	90	,120	,222	(-,093; ,788)
Unequal	1,57	88,28	,120	,222	(-,093; ,788)



Lampiran 11.

Uji T parameter penampakan terhadap ekstrudat rasa asin.

Variable	Number of Cases	Mean	SD	SE of Mean
PENAMPAK				
PERLAKUA 1,	46	3,8913	,823	,121
PERLAKUA 2,	46	2,2609	,880	,130

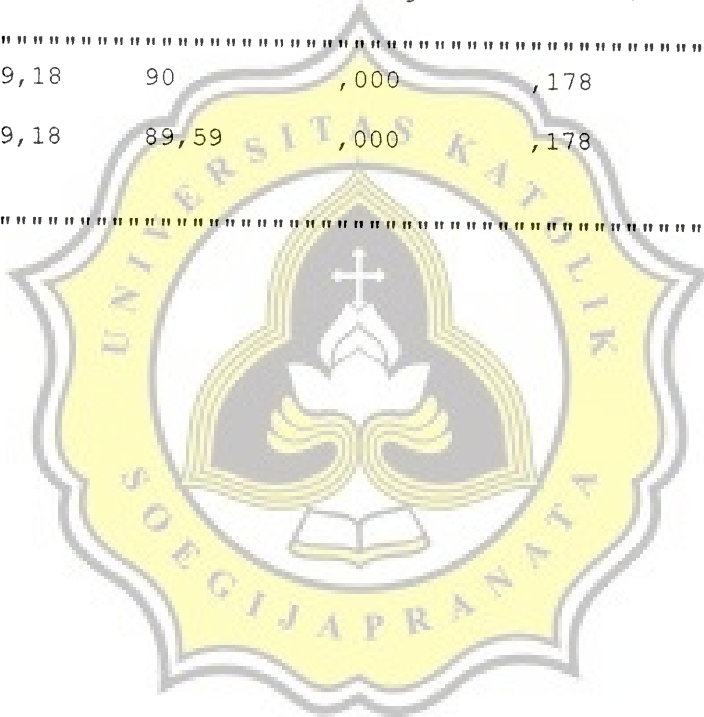
Mean Difference = 1,6304

Levene's Test for Equality of Variances: F= 1,846 P= ,178

t-test for Equality of Means

95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	9,18	90	,000	,178	(1,277;
1,983)					
Unequal	9,18	89,59	,000	,178	(1,277;
1,983)					



Lampiran 12.

Anova satu arah terhadap penerimaan kesukaan pada ekstrudat flavor bawang.

Source	D.F.	Analysis of Variance		F Ratio	F Prob.
		Sum of Squares	Mean Squares		
Between Groups	3	23,6685	7,8895	2,5629	,0563
Within Groups	180	554,1087	3,0784		
Total	183	577,7772			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	5,3261	1,9275	,2811	4,7449 TO 6,5233
Grp 2	46	5,3261	1,9210	,2804	4,7449 TO 6,7778
Grp 3	46	6,1304	1,7645	,2727	5,5811 TO 6,7198
Grp 4	46	6,2609	1,5554	,2523	5,7490 TO 6,7228
Total	184	5,9155	1,7769	,1310	5,6490 TO 6,1769

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	9,0000
Grp 2	2,0000	8,0000
Grp 3	2,0000	9,0000
Grp 4	3,0000	9,0000
TOTAL	1,0000	9,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,1478	3	180	,7331

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq 1,2406 * RANGE * \sqrt{(1/N(I) + 1/N(J))}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

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G G G G
r r r r
p p p p
2 1 3 4
    
```

Mean	PERLAKUAN
5,3261	Grp 2
5,9565	Grp 1
6,1304	Grp 3 *
6,2609	Grp 4 *

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2	Grp 1
Mean	5,3261	5,9565

Subset 2

Group	Grp 1	Grp 3	Grp 4
Mean	5,9565	6,1304	6,2609

Lampiran 13.

Anova satu arah terhadap penerimaan rasa pada ekstrudat flavor bawang.

Source	D.F.	Analysis of Variance		F Ratio	F Prob.
		Sum of Squares	Mean Squares		
Between Groups	3	30,5652	10,1884	7,6178	,0001
Within Groups	180	240,7391	1,3374		
Total	183	271,3043			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	46	2,5435	1,0046	,1481	2,2452	TO 2,8418
Grp 2	46	2,1304	1,1276	,1663	1,7956	TO 2,4653
Grp 3	46	3,0870	1,1893	,1754	2,7338	TO 3,4401
Grp 4	46	3,1087	1,2863	,1897	2,7267	TO 3,4907
Total	184	2,7174	1,2176	,0898	2,5403	TO 2,8945

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances				
Statistic	df1	df2	2-tail Sig.	
1,6051	3	180	,190	

Multiple Range Tests: Duncan test with significance level ,05
 The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq ,8178 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

G G G G
 r r r r
 p p p p
 2 1 3 4

Mean	PERLAKUAN
2,1304	Grp 2
2,5435	Grp 1
3,0870	Grp 3 * *
3,1087	Grp 4 * *

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2	Grp 1
Mean	2,1304	2,5435

Subset 2

Group	Grp 3	Grp 4
Mean	3,0870	3,1087

Lampiran 14.

Anova satu arah terhadap penerimaan aroma pada ekstrudat flavor bawang.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	1,1739	,3913	,2840	,8369
Within Groups	180	248,0435	1,3780		
Total	183	249,2174			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	2,4783	1,2426	,1832	2,1093 TO 2,8473
Grp 2	46	2,3696	,9743	,1437	2,0802 TO 2,6589
Grp 3	46	2,5435	1,2597	,1857	2,1694 TO 2,9176
Grp 4	46	2,3478	1,1966	,1764	1,9925 TO 2,7032
Total	184	2,4348	1,1670	,0860	2,2650 TO 2,6045

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	4,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
3,0235	3	180	,031

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq ,8301 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

- No two groups are significantly different at the ,050 level

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1	Group	Grp 4	Grp 2	Grp 1	Grp 3
Mean		2,3478	2,3696	2,4783	2,5435

Lampiran 15.

Anova satu arah terhadap penerimaan tekatur pada ekstrudat flavor bawang.

Source	D.F.	Analysis of Variance		F Ratio	F Prob.
		Sum of Squares	Mean Squares		
Between Groups	3	10,9130	3,6377	2,5695	,0558
Within Groups	180	254,8261	1,4157		
Total	183	265,7391			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	3,1522	1,0534	,1553	2,8394 TO 3,4650
Grp 2	46	3,0217	1,2381	,1825	2,6541 TO 3,3894
Grp 3	46	2,6087	1,2906	,1903	2,2284 TO 2,9928
Grp 4	46	2,6087	1,1639	,1716	2,2631 TO 2,9543
Total	184	2,8478	1,2050	,0889	2,6715 TO 3,0231

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	Detail Sig.
1,3967	3	180	,245

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq t_{\alpha} \cdot RANGE \cdot \sqrt{(1/N(I) + 1/N(J))}$
 with the following values for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

G G G G
 r r r r
 p p p p
 3 4 2 1

Mean PERLAKUAN

2,6087	Grp 3	
2,6087	Grp 4	
3,0217	Grp 2	
3,1522	Grp 1	* *

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 3	Grp 4	Grp 2
Mean	2,6087	2,6087	3,0217

Subset 2

Group	Grp 2	Grp 1
Mean	3,0217	3,1522

Lampiran 16.

Anova satu arah terhadap penerimaan penampakan pada ekstrudat flavor bawang.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	43,4076	14,4692	13,0635	,0000
Within Groups	180	199,3696	1,1076		
Total	183	242,7772			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	3,3913	1,0641	,1569	3,0753 TO 3,7073
Grp 2	46	2,1087	,9939	,1465	1,8135 TO 2,4039
Grp 3	46	2,8043	,9338	,1377	2,5270 TO 3,0817
Grp 4	46	2,3696	1,1992	,1768	2,0134 TO 2,7257
Total	184	2,6685	1,1518	,0849	2,5009 TO 2,8360

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	4,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,2987	3	180	,276

Multiple Range Tests: Duncan test with significance level ,05
 The difference between two means is significant if
 $MEAN(J)-MEAN(I) \geq ,7442 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

G G G G
 r r r r
 p p p p
 2 4 3 1

Mean	PERLAKUAN
2,1087	Grp 2
2,3696	Grp 4
2,8043	Grp 3
3,3913	Grp 1

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2	Grp 4
Mean	2,1087	2,3696

Subset 2

Group	Grp 3
Mean	2,8043

Subset 3

Group	Grp 1
Mean	3,3913

Lampiran 17.

Anova satu arah terhadap penerimaan kesukaan pada ekstrudat flavor coklat.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	4,8424	1,6141	,4694	,7040
Within Groups	180	618,9348	3,4385		
Total	183	623,7772			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	46	6,3261	1,7391	,2564	5,8096	TO 6,8426
Grp 2	46	6,0652	1,7563	,2590	5,5437	TO 6,5868
Grp 3	46	6,0652	1,8427	,2717	5,5180	TO 6,6124
Grp 4	46	5,8696	2,0614	,3039	5,2574	TO 6,4817
Total	184	6,0815	1,8462	,1361	5,8130	TO 6,3501

GROUP	MINIMUM	MAXIMUM
Grp 1	2,0000	9,0000
Grp 2	2,0000	9,0000
Grp 3	1,0000	9,0000
Grp 4	1,0000	9,0000
TOTAL	1,0000	9,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,9484	3	180	,418

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq 1,3112 * RANGE * \sqrt{(1/N(I) + 1/N(J))}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

- No two groups are significantly different at the ,050 level

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1	Grp 4	Grp 2	Grp 3	Grp 1
Mean	5,8696	6,0652	6,0652	6,3261

Lampiran 18

Anova satu arah terhadap penerimaan rasa pada ekstrudat flavor coklat.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	4,0217	1,3406	,9055	,4396
Within Groups	180	266,4783	1,4804		
Total	183	270,5000			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	2,5217	1,0696	,1577	2,2041 TO 2,8394
Grp 2	46	2,8696	1,3099	,1931	2,4806 TO 3,2586
Grp 3	46	2,8913	1,0377	,1530	2,5831 TO 3,1995
Grp 4	46	2,7174	1,4089	,2077	2,2990 TO 3,1358
Total	184	2,7500	1,2158	,0896	2,5730 TO 2,9268

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances
 Statistic dfl df2 Detail Sig.
 4,4866 3 180 ,005

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J)-MEAN(I) \geq ,8604 * RANGE * \sqrt{(1/N(I) + 1/N(J))}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

- No two groups are significantly different at the ,050 level

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1	Group	Grp 1	Grp 4	Grp 2	Grp 3
Mean		2,5217	2,7174	2,8696	2,8913

Lampiran 19.

Anova satu arah terhadap penerimaan aroma pada ekstrudat flavor coklat.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	24,0593	8,0198	6,0264	,0006
Within Groups	180	29,5435	1,6413		
Total	183	53,6028			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	2,1087	,3493	,1252	1,8565 TO 2,3609
Grp 2	46	2,4348	1,2047	,1776	2,0770 TO 2,7925
Grp 3	46	2,9783	1,3742	,2026	2,5702 TO 3,3863
Grp 4	46	2,9348	1,1235	,1657	2,6011 TO 3,2684
Total	184	2,6141	1,2002	,0885	2,4396 TO 2,7887

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	4,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
5,7482	3	180	,001

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq ,8157 * RANGE * \sqrt{(1/N(I) + 1/N(J))}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

G G G G
 r r r r
 p p p p

Mean	PERLAKUAN	1	2	4	3
2,1087	Grp 1				
2,4348	Grp 2				
2,9348	Grp 4	*	*		
2,9783	Grp 3	*	*		

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 1	Grp 2
Mean	2,1087	2,4348

Subset 2

Group	Grp 4	Grp 3
Mean	2,9348	2,9783

Lampiran 20.

Anova satu arah terhadap penerimaan tekstur pada ekstrudat flavor coklat.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	217,4130	72,4710	108,3532	,0000
Within Groups	180	120,3913	,6688		
Total	183	337,8043			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	4,0435	,6978	,1029	3,8363 TO 4,2507
Grp 2	46	4,0652	,9286	,1369	3,7895 TO 4,3410
Grp 3	46	1,8913	,7952	,1172	1,6552 TO 2,1275
Grp 4	46	1,8696	,8329	,1228	1,6222 TO 2,1169
Total	184	2,9674	1,3586	,1002	2,7698 TO 3,1650

GROUP	MINIMUM	MAXIMUM
Grp 1	2,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	4,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,4658	3	180	,225

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq ,5783 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

Mean	PERLAKUAN			
1,8696	Grp 4			
1,8913	Grp 3			
4,0435	Grp 1	*	*	
4,0652	Grp 2	*	*	

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 4	Grp 3
Mean	1,8696	1,8913

Subset 2

Group	Grp 1	Grp 2
Mean	4,0435	4,0652

Lampiran 21

Anova satu arah terhadap penerimaan penampakan pada ekstrudat flavor coklat.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	43,2174	14,4058	12,1368	,0000
Within Groups	180	213,6522	1,1870		
Total	183	256,8696			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	2,6957	1,1522	,1699	2,3535 TO 3,0378
Grp 2	46	1,8261	,9731	,1435	1,5371 TO 2,1151
Grp 3	46	2,9130	1,1705	,1726	2,5655 TO 3,2606
Grp 4	46	3,0870	1,0504	,1549	2,7750 TO 3,3989
Total	184	2,6304	1,1848	,0873	2,4581 TO 2,8028

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	4,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	Prob. > F
1,2014	3	180	,311

Multiple Range Tests: Duncan test with significance level .05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .7704 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

Mean	PERLAKUAN		
1,8261	Grp 2		
2,6957	Grp 1	*	
2,9130	Grp 3	*	*
3,0870	Grp 4	*	*

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2
Mean	1,8261

Subset 2

Group	Grp 1	Grp 3	Grp 4
Mean	2,6957	2,9130	3,0870

Lampiran 22.

Anova satu arah terhadap penerimaan kesukaan pada ekstrudat flavor vanili.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	8,7607	2,9202	,6248	,5999
Within Groups	180	841,3208	4,6740		
Total	183	850,0815			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	46	6,1739	2,2341	,3250	5,5194 TO	6,8284
Grp 2	46	6,0000	2,0221	,2981	5,3995 TO	6,6005
Grp 3	44	5,5682	1,9813	,2987	4,9658 TO	6,1705
Grp 4	48	5,9583	2,3964	,3459	5,2625 TO	6,6542
Total	184	5,9293	2,1553	,1589	5,6159 TO	6,2428

GROUP	MINIMUM	MAXIMUM
Grp 1	2,0000	9,0000
Grp 2	1,0000	9,0000
Grp 3	1,0000	9,0000
Grp 4	1,0000	9,0000
TOTAL	1,0000	9,0000

Levene Test for Homogeneity of Variances

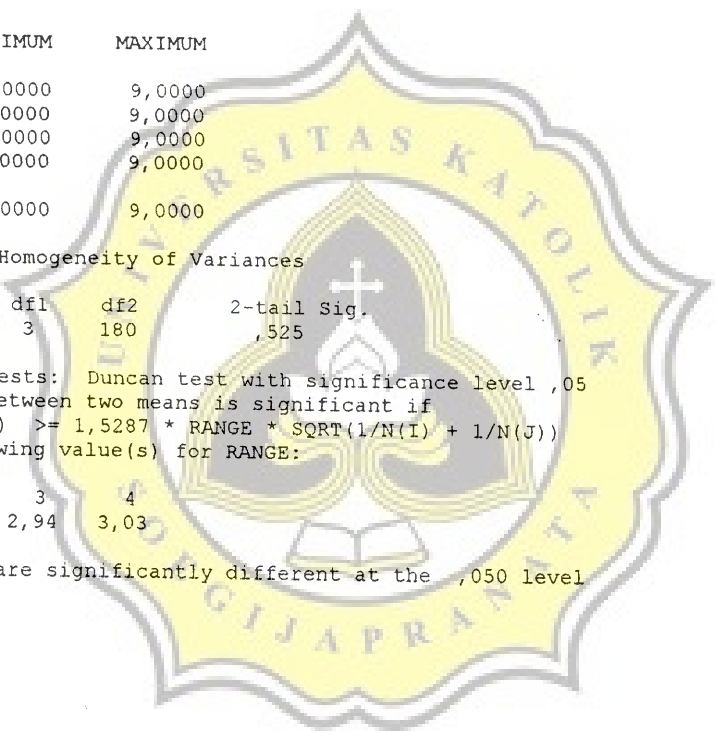
Statistic	df1	df2	2-tail Sig.
,7478	3	180	,525

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq 1,5287 * RANGE * \sqrt{1/N(I) + 1/N(J)}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

- No two groups are significantly different at the ,050 level



Lampiran 23.

Anova satu arah terhadap penerimaan rasa pada ekstrudat flavor vanili.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	22,0327	7,3442	5,0766	,0021
Within Groups	180	260,4021	1,4467		
Total	183	282,4348			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	3,1304	1,2402	,1829	2,7621 TO 3,4987
Grp 2	46	3,0217	1,1830	,1744	2,6704 TO 3,3731
Grp 3	44	2,2273	1,1786	,1777	1,8690 TO 2,5856
Grp 4	48	2,8958	1,2071	,1742	2,5453 TO 3,2463
Total	184	2,8261	1,2423	,0916	2,6454 TO 3,0068

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,0118	3	180	,998

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if

$$\text{MEAN}(J) - \text{MEAN}(I) \geq ,8505 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$$

with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

G G G G
r r r r
p p p p

3 4 2 1

Mean PERLAKUA

2,2273	Grp 3	
2,8958	Grp 4	*
3,0217	Grp 2	*
3,1304	Grp 1	*

Lampiran 24.

Anova satu arah terhadap penerimaan aroma pada ekstrudat flavor vanili.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	4,4892	1,4964	1,0629	,3662
Within Groups	180	253,4238	1,4079		
Total	183	257,9130			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	46	2,5652	1,2588	,1856	2,1914 TO	2,9390
Grp 2	46	2,4565	1,2945	,1909	2,0721 TO	2,8410
Grp 3	44	2,2273	1,1384	,1716	1,8812 TO	2,5734
Grp 4	48	2,6458	1,0415	,1503	2,3434 TO	2,9482
Total	184	2,4783	1,1872	,0875	2,3056 TO	2,6509

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	4,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

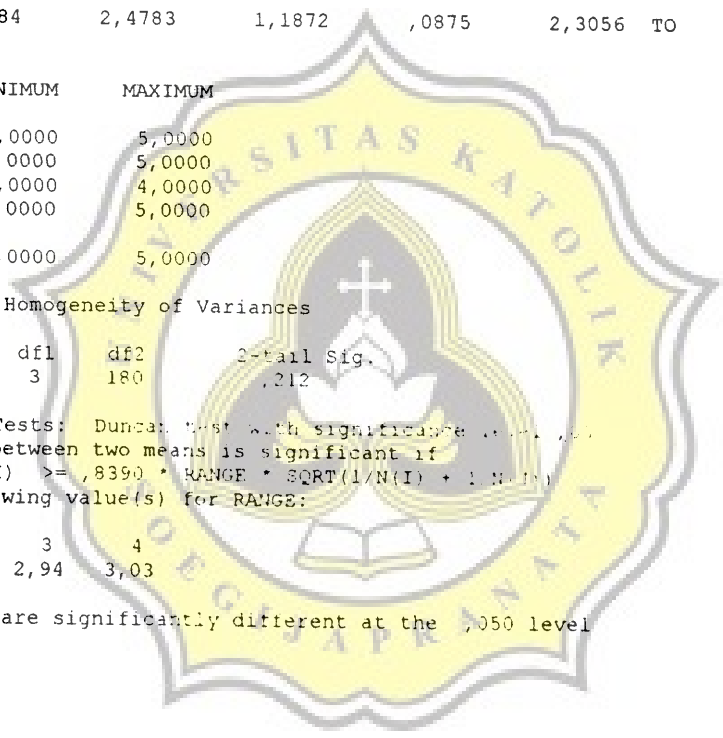
Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
1,5153	3	180	,212

Multiple Range Tests: Duncan Test with significance level .05.
 The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq .8390 * RANGE * \sqrt{(1/N(I) + 1/N(J))}$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

- No two groups are significantly different at the .050 level



Lampiran 25.

Anova satu arah terhadap penerimaan tekstur pada ekstrudat flavor vanili.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	129,6209	43,2070	39,9649	,0000
Within Groups	180	199,5965	1,1089		
Total	183	329,2174			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	46	3,8478	1,1347	,1673	3,5109 TO 4,1848
Grp 2	46	3,6739	1,0761	,1587	3,3544 TO 3,9935
Grp 3	44	1,9091	1,0744	,1620	1,5824 TO 2,2357
Grp 4	48	2,2917	,9216	,1330	2,0241 TO 2,5593
Total	184	2,9348	1,3413	,0989	2,7397 TO 3,1299

GROUP	MINIMUM	MAXIMUM
Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,8342	3	180	,477

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq ,7446 * RANGE * SQRT(1/N(I) + 1/N(J))$
 with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

			G G G G
			r r r r
			p p p p
			3 4 2 1
Mean	PERLAKUA		
1,9091	Grp 3		
2,2917	Grp 4		
3,6739	Grp 2	* *	
3,8478	Grp 1	* *	

Lampiran 26.

Anova satu arah terhadap penerimaan penampakan pada ekstrudat flavor vanili.

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	19,2204	6,4068	4,4654	,0047
Within Groups	180	258,2578	1,4348		
Total	183	277,4783			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	46	2,3913	1,1250	,1659	2,0572 TO	2,7254
Grp 2	46	2,4565	1,2597	,1857	2,0824 TO	2,8306
Grp 3	44	2,9545	1,1605	,1749	2,6017 TO	3,3074
Grp 4	48	3,1458	1,2375	,1786	2,7865 TO	3,5052
Total	184	2,7391	1,2314	,0908	2,5600 TO	2,9182
GROUP	MINIMUM	MAXIMUM				

Grp 1	1,0000	5,0000
Grp 2	1,0000	5,0000
Grp 3	1,0000	5,0000
Grp 4	1,0000	5,0000
TOTAL	1,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,8949	3	180	,445

Multiple Range Tests: Duncan test with significance level ,05

The difference between two means is significant if

$$MEAN(J)-MEAN(I) \geq ,8470 * RANGE * SQRT(1/N(I) + 1/N(J))$$

with the following value(s) for RANGE:

Step	2	3	4
RANGE	2,80	2,94	3,03

(*) Indicates significant differences which are shown in the lower triangle

	G	G	G	G
	r	r	r	r
	p	p	p	p
	1	2	3	4
Mean	PERLAKUA			
2,3913	Grp 1			
2,4565	Grp 2			
2,9545	Grp 3	*		
3,1458	Grp 4	*	*	

Lampiran 27

Uji Normalitas kadar gula dan garam pada ekstrudat rasa asin dan manis

KADAR GULA

Valid cases:	12,0	Missing cases:	6,0	Percent missing:	33,3		
Mean	48,4167	Std Err	3,6916	Min	30,0000	Skewness	-,3969
Median	48,0000	Variance	163,5379	Max	65,0000	S E Skew	,6373
5% Trim	48,5185	Std Dev	12,7882	Range	35,0000	Kurtosis	-1,0471
95% CI for Mean	(40,2914; 56,5419)	IQR			27,0000	S E Kurt	1,2322

Hi-Res Chart # 11:Normal q-q plot of gula

Hi-Res Chart # 12:Detrended normal q-q plot of gula

	Statistic	df	Significance
Shapiro-Wilks	,8670	12	,0667
K-S (Lilliefors)	,1751	12	> ,2000

Hi-Res Chart # 13:Boxplot of gula

KADAR GARAM

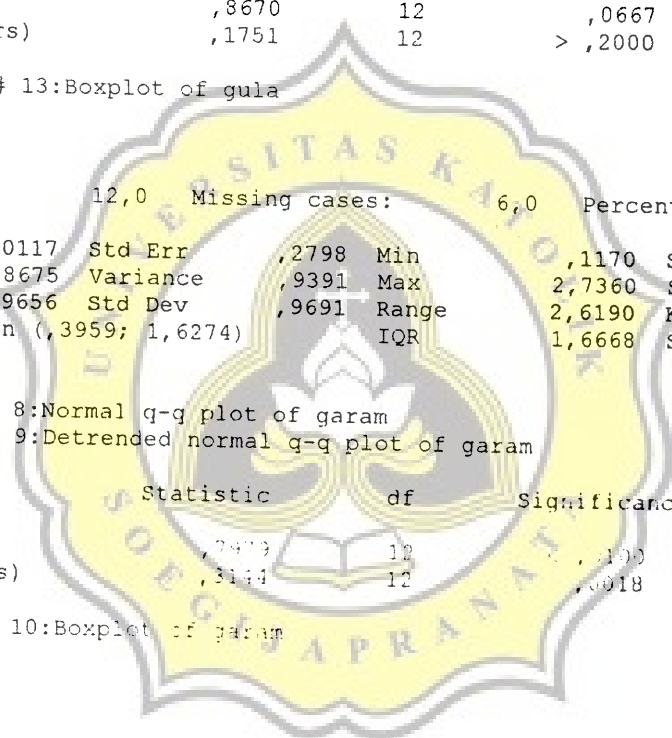
Valid cases:	12,0	Missing cases:	6,0	Percent missing:	33,3		
Mean	1,0117	Std Err	,2798	Min	,1170	Skewness	,3587
Median	,8675	Variance	,9391	Max	2,7360	S E Skew	,6373
5% Trim	,9656	Std Dev	,9691	Range	2,6190	Kurtosis	-1,5101
95% CI for Mean	(,3959; 1,6274)	IQR			1,6668	S E Kurt	1,2322

Hi-Res Chart # 8:Normal q-q plot of garam

Hi-Res Chart # 9:Detrended normal q-q plot of garam

	Statistic	df	Significance
Shapiro-Wilks	,9479	12	,1100
K-S (Lilliefors)	,3144	12	,0018

Hi-Res Chart # 10:Boxplot of garam



Lampiran 28

Uji Kolmogorov - Smirnov 2-Sample Test pada ekstrudat rasa asin dan manis.

GARAM
by WAKTAMB

```
Cases
  6 WAKTAMB = 1,00
  6 WAKTAMB = 1,00
--
 12 Total
```

Warning - Due to small sample size, probability tables should be consulted.

Most extreme differences				
Absolute	Positive	Negative	K-S Z	2-Tailed P
,50000	,50000	,00000	,866	,441



Lampiran 29

Uji T pada kadar gula terhadap ekstrudat rasa asin dan manis.

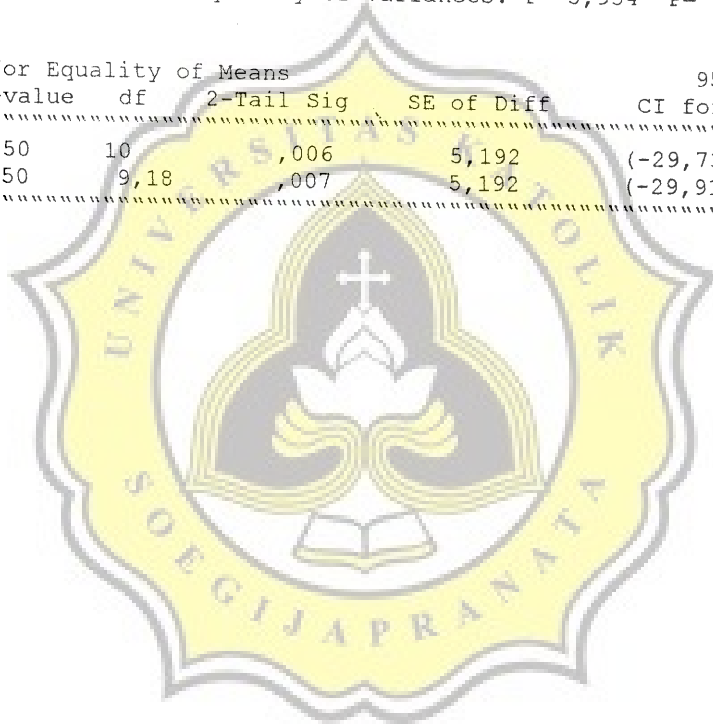
t-tests for independent samples of PERLAKUAN

Variable of Cases	Mean	SD	SE of Mean
GULA			
WAKTAMB 1,	6	39,3333	10,250
WAKTAMB 2,	6	57,5000	7,530

Mean Difference = -18,1667

Levene's Test for Equality of Variances: F= 5,934 P= ,035

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-3,50	10	,006	5,192	(-29,739; -6,594)
Unequal	-3,50	9,18	,007	5,192	(-29,916; -6,417)



Lampiran 30

Uji Normalitas kadar gula dan garam pada ekstrudat dengan flavor bawang, coklat serta vanili.

KADAR GULA

Valid cases:	36,0	Missing cases:	12,0	Percent missing:	25,0
Mean	35,5833	Std Err	1,8604	Min	20,0000
Median	35,5000	Variance	124,5929	Max	68,0000
5% Trim	34,6728	Std Dev	11,1621	Range	48,0000
95% CI for Mean	(31,8066; 39,3601)	IQR	16,0000	Skewness	1,0391
				S E Skew	,3925
				Kurtosis	1,4792
				S E Kurt	,7681

Hi-Res Chart # 4: Normal q-q plot of gula
 Hi-Res Chart # 5: Detrended normal q-q plot of gula

	Statistic	df	Significance
Shapiro-Wilks	,9032	36	< ,0100
K-S (Lilliefors)	,1421	36	,0638

Hi-Res Chart # 6: Boxplot of gula

KADAR GARAM

Valid cases:	36,0	Missing cases:	12,0	Percent missing:	25,0
Mean	,7537	Std Err	,1589	Min	,0700
Median	,1170	Variance	,9086	Max	2,8290
5% Trim	,6772	Std Dev	,9532	Range	2,7590
95% CI for Mean	(,4312; 1,0762)	IQR	1,5990	Skewness	,9703
				S E Skew	,3925
				Kurtosis	-,7320
				S E Kurt	,7681

Hi-Res Chart # 1: Normal q-q plot of garam
 Hi-Res Chart # 2: Detrended normal q-q plot of garam

	Statistic	df	Significance
Shapiro-Wilks	,6913	36	< ,001
K-S (Lilliefors)	,1007	36	,001

Hi-Res Chart # 3: Boxplot of garam

Lampiran 31

Uji Kolmogorov - Smirnov 2-Sample Test

GARAM
by WAKTAMB

Cases	
9	WAKTAMB = 1,00
9	WAKTAMB = 4,00
--	
18	Total

Warning - Due to small sample size, probability table may have been consulted.

Most extreme differences				
Absolute	Positive	Negative	1-Sided Z	2-Tailed P
,44444	,44444	-,22222	,843	,316



Lampiran 32

Anova satu arah kadar gula pada ekstrudat rasa manis.

Variable GULA
By Variable WAKTAMB

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	3	1430,3056	476,7685	5,2062	,0048
Within Groups	32	2930,4444	91,5764		
Total	35	4360,7500			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int	for Mean
Grp 1	9	30,7778	11,1330	3,7110	22,2202 TO	39,3354
Grp 2	9	28,0000	5,3852	1,7951	23,8606 TO	32,1394
Grp 3	9	42,6667	10,5830	3,5277	34,5319 TO	50,8015
Grp 4	9	40,8889	10,0678	3,3559	33,1501 TO	48,6277
Total	36	35,5833	11,1621	1,8604	31,8066 TO	39,3601

GROUP	MINIMUM	MAXIMUM
Grp 1	20,0000	51,0000
Grp 2	22,0000	40,0000
Grp 3	30,0000	68,0000
Grp 4	32,0000	65,0000
TOTAL	20,0000	68,0000

Levene Test for Homogeneity of Variances
Statistic df1 df2 2-tail Sig.
1,1981 3 32 ,326

Multiple Range Tests: LSD test with significance level ,05
The difference between two means is significant if
 $MEAN(J) - MEAN(I) \geq 6,7667 * RANGE * SQRT(1/N(I) + 1/N(J))$
with the following value(s) for RANGE: 2,88

(*) Indicates significant differences which are shown in the lower triangle

G G G G
r r r r
p p p p
2 1 4 3

Mean	WAKTAMB	
28,0000	Grp 2	
30,7778	Grp 1	
40,8889	Grp 4	* *
42,6667	Grp 3	* *

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2	Grp 1
Mean	28,0000	30,7778

Subset 2

Group	Grp 4	Grp 3
Mean	40,8889	42,6667