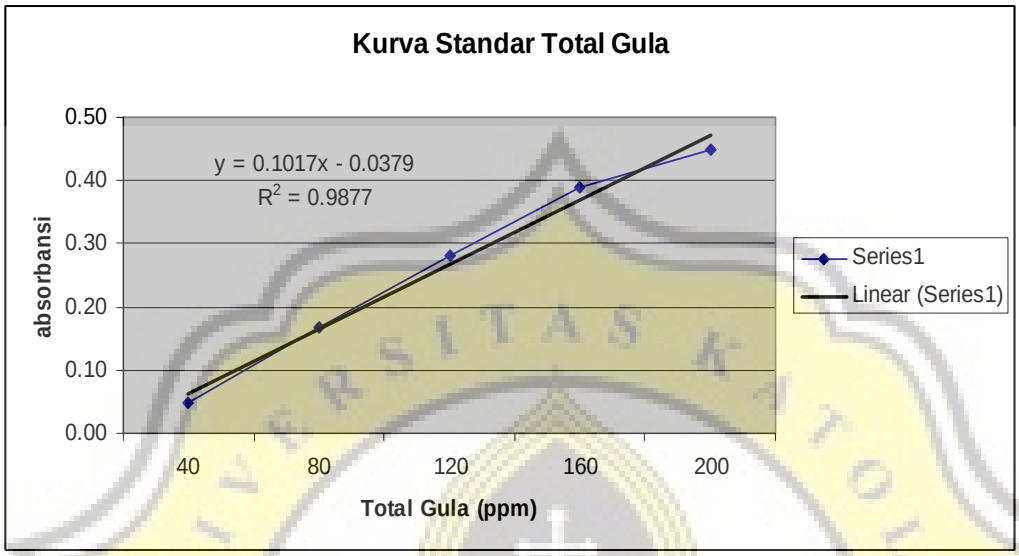
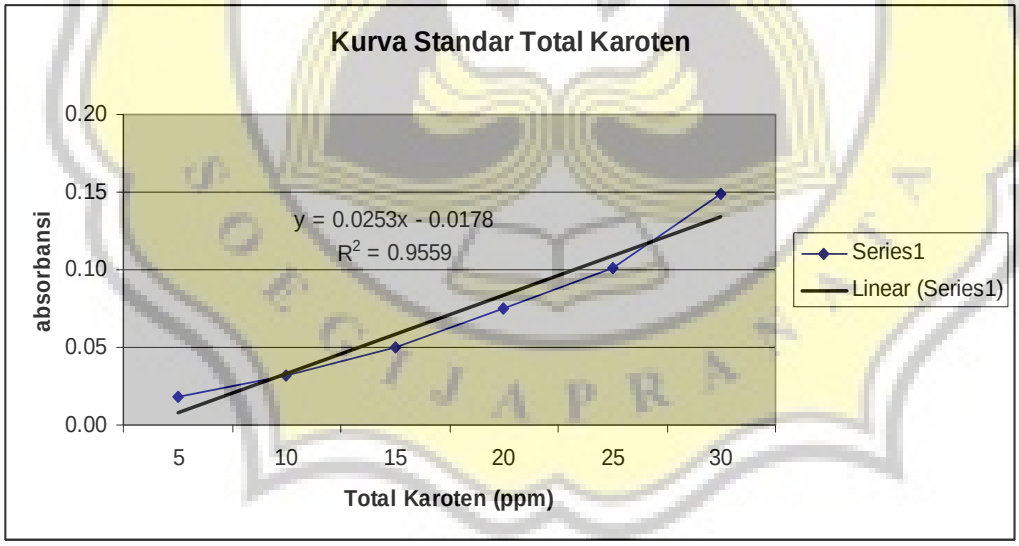
7. LAMPIRAN

Lampiran 1. Kurva Standar Total Gula



Lampiran 2. Kurva Standar Total Karoten



Lampiran 3. Rumus Konversi *Wet Basis* ke *Dry Basis*

$$\text{Berat } Dry\ Basis = \frac{berat\_wet\_basis}{(100 - kadar\_air)} x100$$

Lampiran 4. Standar Nasional Indonesia (SNI 01-3710-1995)

Tabel Syarat Mutu Buah Kering

NO.	KRITERIA UJI	SATUAN	PERSYARATAN
1.	Keadaan :		
1.1.	Penampakan	-	Normal
1.2.	Bau	-	Normal
1.3.	Rasa	-	Normal
2.	Air	% b/b	Maks. 31
3.	Bahan tambahan makanan :		
3.1.	Pemanis buatan (sakarin, siklamat)	-	Negatif
3.2.	Pewarna	sesuai SNI 01-0222-1987	
3.3.	Pengawet	sesuai SNI 01-0222-1987	
4.	Cemaran logam :		
4.1.	Timbal (Pb)	mg/kg	Maks. 2,0
4.2.	Tembaga (Cu)	mg/kg	Maks. 5,0
4.3.	Seng (Zn)	mg/kg	Maks. 40,0
4.4.	Timah (Sn)	mg/kg	Maks. 40,0/251**
4.5.	Raksa (Hg)	mg/kg	Maks. 0,03
5.	Cemaran Arsen (As)	mg/kg	Maks. 1,0
6.	Cemaran mikrobia :		
6.1.	E. coli	APM/g	< 3

** Khusus untuk produk yang dikemas dalam kaleng

Lampiran 5. Normalitas Parameter Warna Manisan Kering Labu Kuning

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	waktu	Statistic	df	Sig.	Statistic	df	Sig.
L	jam ke 0	.151	10	.200*	.933	10	.474
	jam ke 1	.129	10	.200*	.979	10	.961
	jam ke 2	.177	10	.200*	.926	10	.408
	jam ke 3	.140	10	.200*	.949	10	.660
	jam ke 4	.212	10	.200*	.885	10	.150
	jam ke 5	.142	10	.200*	.970	10	.887
	jam ke 6	.152	10	.200*	.952	10	.691
a	jam ke 0	.116	10	.200*	.955	10	.725
	jam ke 1	.169	10	.200*	.955	10	.728
	jam ke 2	.152	10	.200*	.947	10	.639
	jam ke 3	.135	10	.200*	.950	10	.670
	jam ke 4	.255	10	.065	.887	10	.156
	jam ke 5	.158	10	.200*	.948	10	.649
	jam ke 6	.196	10	.200*	.848	10	.054
b	jam ke 0	.197	10	.200*	.950	10	.669
	jam ke 1	.152	10	.200*	.931	10	.459
	jam ke 2	.151	10	.200*	.949	10	.655
	jam ke 3	.160	10	.200*	.917	10	.334
	jam ke 4	.204	10	.200*	.933	10	.477
	jam ke 5	.255	10	.064	.922	10	.372
	jam ke 6	.232	10	.137	.887	10	.156
Chroma	jam ke 0	.187	10	.200*	.916	10	.325
	jam ke 1	.155	10	.200*	.972	10	.905
	jam ke 2	.121	10	.200*	.966	10	.853
	jam ke 3	.141	10	.200*	.944	10	.603
	jam ke 4	.255	10	.065	.917	10	.332
	jam ke 5	.125	10	.200*	.953	10	.705
	jam ke 6	.181	10	.200*	.856	10	.068
Hue	jam ke 0	.185	10	.200*	.922	10	.376
	jam ke 1	.208	10	.200*	.899	10	.215
	jam ke 2	.206	10	.200*	.922	10	.370
	jam ke 3	.186	10	.200*	.882	10	.137
	jam ke 4	.136	10	.200*	.922	10	.375
	jam ke 5	.175	10	.200*	.935	10	.503
	jam ke 6	.179	10	.200*	.910	10	.282

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality[b]

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	waktu	Statistic	df	Sig.	Statistic	df	Sig.
Total_Colour_Change	?E1	.184	10	.200*	.899	10	.215
	?E1	.137	10	.200*	.980	10	.963
	?E2	.123	10	.200*	.933	10	.479
	?E3	.198	10	.200*	.938	10	.534
	?E4	.243	10	.096	.939	10	.536
	?E 5	.214	10	.200*	.909	10	.277

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

b. Total_Colour_Change is constant when waktu = 0. It has been omitted.

Lampiran 6. Normalitas Sifat Fisikokimia Lainnya Manisan Kering Labu Kuning

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	waktu	Statistic	df	Sig.	Statistic	df	Sig.
kadar_air	jam ke 0	.210	10	.200*	.906	10	.253
	jam ke 1	.210	10	.200*	.918	10	.344
	jam ke 2	.185	10	.200*	.928	10	.426
	jam ke 3	.180	10	.200*	.917	10	.333
	jam ke 4	.176	10	.200*	.916	10	.328
	jam ke 5	.150	10	.200*	.913	10	.303
	jam ke 6	.177	10	.200*	.895	10	.192
karoten	jam ke 0	.108	10	.200*	.964	10	.831
	jam ke 1	.153	10	.200*	.954	10	.712
	jam ke 2	.191	10	.200*	.908	10	.265
	jam ke 3	.120	10	.200*	.965	10	.843
	jam ke 4	.145	10	.200*	.950	10	.673
	jam ke 5	.194	10	.200*	.885	10	.147
	jam ke 6	.177	10	.200*	.930	10	.452
gula	jam ke 0	.161	10	.200*	.939	10	.538
	jam ke 1	.161	10	.200*	.960	10	.785
	jam ke 2	.148	10	.200*	.950	10	.671
	jam ke 3	.185	10	.200*	.919	10	.347
	jam ke 4	.156	10	.200*	.949	10	.656
	jam ke 5	.118	10	.200*	.960	10	.782
	jam ke 6	.137	10	.200*	.958	10	.765
hardness	jam ke 0	.181	10	.200*	.922	10	.370
	jam ke 1	.177	10	.200*	.921	10	.366
	jam ke 2	.152	10	.200*	.943	10	.586
	jam ke 3	.167	10	.200*	.958	10	.766
	jam ke 4	.162	10	.200*	.931	10	.456
	jam ke 5	.232	10	.137	.907	10	.258
	jam ke 6	.171	10	.200*	.906	10	.257
pH	jam ke 0	.185	10	.200*	.925	10	.401
	jam ke 1	.142	10	.200*	.976	10	.939
	jam ke 2	.185	10	.200*	.938	10	.529
	jam ke 3	.122	10	.200*	.955	10	.728
	jam ke 4	.124	10	.200*	.958	10	.764
	jam ke 5	.139	10	.200*	.942	10	.579
	jam ke 6	.139	10	.200*	.942	10	.579

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Lampiran 7. Korelasi Warna, Parameter Mutu Produk, dan Variabel Pengeringan

Correlations

		suhu	kelembaban	L	a	b	Total_Colour_Change	kadar_air	karoten	gula	hardness	pH
suhu	Pearson Correlation	1	.272*	-.163	.090	-.005	.002	-.079	.266*	.062	-.094	-.166
	Sig. (2-tailed)		.023	.179	.457	.966	.986	.513	.026	.611	.440	.169
	N	70	70	70	70	70	70	70	70	70	70	70
kelembaban	Pearson Correlation	.272*	1	-.100	.076	-.011	.031	-.061	-.004	.007	-.006	.105
	Sig. (2-tailed)	.023		.409	.532	.925	.799	.617	.973	.957	.962	.388
	N	70	70	70	70	70	70	70	70	70	70	70
L	Pearson Correlation	-.163	-.100	1	.620**	.681**	-.773**	.784**	.457**	-.549**	-.771**	.101
	Sig. (2-tailed)	.179	.409		.000	.000	.000	.000	.000	.000	.000	.405
	N	70	70	70	70	70	70	70	70	70	70	70
a	Pearson Correlation	.090	.076	.620**	1	.925**	-.884**	.756**	.493**	-.523**	-.784**	.193
	Sig. (2-tailed)	.457	.532	.000		.000	.000	.000	.000	.000	.000	.110
	N	70	70	70	70	70	70	70	70	70	70	70
b	Pearson Correlation	-.005	-.011	.681**	.925**	1	-.960**	.832**	.569**	-.614**	-.884**	.159
	Sig. (2-tailed)	.966	.925	.000	.000		.000	.000	.000	.000	.000	.189
	N	70	70	70	70	70	70	70	70	70	70	70
Total_Colour_Change	Pearson Correlation	.002	.031	-.773**	-.884**	-.960**	1	-.855**	-.616**	.624**	.906**	-.071
	Sig. (2-tailed)	.986	.799	.000	.000	.000		.000	.000	.000	.000	.560
	N	70	70	70	70	70	70	70	70	70	70	70
kadar_air	Pearson Correlation	-.079	-.061	.784**	.756**	.832**	-.855**	1	.409**	-.617**	-.907**	.191
	Sig. (2-tailed)	.513	.617	.000	.000	.000	.000		.000	.000	.000	.114
	N	70	70	70	70	70	70	70	70	70	70	70
karoten	Pearson Correlation	.266*	-.004	.457**	.493**	.569**	-.616**	.409**	1	-.278*	-.568**	.001
	Sig. (2-tailed)	.026	.973	.000	.000	.000	.000	.000		.020	.000	.992
	N	70	70	70	70	70	70	70	70	70	70	70
gula	Pearson Correlation	.062	.007	-.549**	-.523**	-.614**	.624**	-.617**	-.278*	1	.618**	-.011
	Sig. (2-tailed)	.611	.957	.000	.000	.000	.000	.000	.020		.000	.927
	N	70	70	70	70	70	70	70	70	70	70	70
hardness	Pearson Correlation	-.094	-.006	-.771**	-.784**	-.884**	.906**	-.907**	-.568**	.618**	1	-.142
	Sig. (2-tailed)	.440	.962	.000	.000	.000	.000	.000	.000	.000		.242
	N	70	70	70	70	70	70	70	70	70	70	70
pH	Pearson Correlation	-.166	.105	.101	.193	.159	-.071	.191	.001	-.011	-.142	1
	Sig. (2-tailed)	.169	.388	.405	.110	.189	.560	.114	.992	.927	.242	
	N	70	70	70	70	70	70	70	70	70	70	70

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Lampiran 8. Regresi Variabel Warna dengan Sifat Fisikokimianya

Regression Analysis: L* versus Kadar air, Total Karoten, ...

```
The regression equation is
L* = 34.6 + 0.0568 Kadar air + 0.620 Total Karoten - 0.00546 Total Gula
     - 0.0343 Hardness


Predictor           Coef   SE Coef      T      P
Constant          34.553     2.512  13.76  0.000
Kadar air        0.05676   0.02022   2.81  0.007
Total Karoten     0.6204    0.4935   1.26  0.213
Total Gula     -0.005462  0.006244  -0.87  0.385
Hardness        -0.03434   0.03991  -0.86  0.393


S = 1.43094   R-Sq = 64.7%   R-Sq(adj) = 62.5%


Analysis of Variance

Source          DF       SS      MS      F      P
Regression       4  243.931  60.983  29.78  0.000
Residual Error  65  133.093   2.048
Total           69  377.023


Source         DF   Seq SS
Kadar air       1  231.756
Total Karoten   1    8.393
Total Gula      1    2.266
Hardness        1    1.515


Unusual Observations

     Kadar
Obs    air      L*     Fit  SE Fit  Residual  St Resid
 11   74.2  42.430  38.861   0.284     3.569      2.54R
 36   51.4  34.560  37.470   0.336    -2.910     -2.09R
 41   34.6  32.710  35.596   0.548    -2.886     -2.18R

R denotes an observation with a large standardized residual.
```

Regression Analysis: a* versus Kadar air, Total Karoten, ...

```
The regression equation is
a* = 19.5 + 0.0759 Kadar air + 1.46 Total Karoten - 0.0071 Total Gula
     - 0.167 Hardness


Predictor           Coef  SE Coef      T      P
Constant          19.496    5.622   3.47  0.001
Kadar air        0.07588  0.04526   1.68  0.098
Total Karoten      1.461    1.104   1.32  0.191
Total Gula     -0.00713  0.01398  -0.51  0.612
Hardness       -0.16716  0.08933  -1.87  0.066
```

S = 3.20282   R-Sq = 63.7%   R-Sq(adj) = 61.4%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	4	1167.99	292.00	28.47	0.000
Residual Error	65	666.77	10.26		
Total	69	1834.76			

Source	DF	Seq SS
Kadar air	1	1049.33
Total Karoten	1	74.96
Total Gula	1	7.78
Hardness	1	35.91

Unusual Observations

Obs	Kadar air	a*	Fit	SE Fit	Residual	St Resid
24	67.0	28.380	21.892	0.925	6.488	2.12R
30	61.9	29.440	22.795	0.671	6.645	2.12R
34	59.8	27.030	20.055	1.007	6.975	2.29R
39	34.7	26.360	19.091	0.647	7.269	2.32R
40	52.1	29.350	21.142	0.527	8.208	2.60R

R denotes an observation with a large standardized residual.

Regression Analysis: b* versus Kadar air, Total Karoten, ...

The regression equation is
b* = 12.2 + 0.0466 Kadar air + 1.46 Total Karoten - 0.0135 Total Gula
     - 0.197 Hardness

Predictor	Coef	SE Coef	T	P
Constant	12.217	3.591	3.40	0.001
Kadar air	0.04662	0.02891	1.61	0.112
Total Karoten	1.4648	0.7054	2.08	0.042
Total Gula	-0.013494	0.008926	-1.51	0.135
Hardness	-0.19726	0.05706	-3.46	0.001

S = 2.04565   R-Sq = 80.5%   R-Sq(adj) = 79.3%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	4	1125.04	281.26	67.21	0.000
Residual Error	65	272.00	4.18		
Total	69	1397.05			

Source	DF	Seq SS
Kadar air	1	966.96
Total Karoten	1	88.02
Total Gula	1	20.05

```
Hardness        1   50.02


Unusual Observations
Obs    Kadar air       b*     Fit   SE Fit    Residual  St Resid
 39   34.7        13.740   9.160   0.413     4.580      2.29R
 40   52.1        14.900  10.689   0.336     4.211      2.09R

R denotes an observation with a large standardized residual.
```

Regression Analysis: Total Colour versus Kadar air, Total Karote, ...

```
The regression equation is
Total Colour Change = 9.23 - 0.0798 Kadar air - 2.82 Total Karoten
                      + 0.0178 Total Gula + 0.238 Hardness


Predictor          Coef  SE Coef      T      P
Constant          9.231    4.201   2.20  0.032
Kadar air      -0.07983  0.03382  -2.36  0.021
Total Karoten   -2.8234   0.8253  -3.42  0.001
Total Gula      0.01780  0.01044   1.70  0.093
Hardness        0.23814  0.06676   3.57  0.001


S = 2.39330   R-Sq = 85.7%   R-Sq(adj) = 84.8%


Analysis of Variance

Source          DF       SS      MS      F      P
Regression       4  2231.23  557.81  97.38  0.000
Residual Error  65   372.31    5.73
Total           69  2603.55


Source         DF   Seq SS
Kadar air       1  1902.82
Total Karoten   1   222.36
Total Gula      1    33.16
Hardness        1    72.89


Unusual Observations

             Total
     Kadar  Colour
Obs    air  Change      Fit  SE Fit  Residual  St Resid
 42   25.1  16.990  12.142   0.726     4.848      2.13R
 43   51.5  18.030  12.012   0.665     6.018      2.62R
 68   13.6  13.060  17.850   0.580    -4.790     -2.06R

R denotes an observation with a large standardized residual.
```