Lampiran-lampiran

Lampiran 1

**Formulir Penilaian Organoleptik**

**Uji Skala Kesukaan (Hedonik Scale Test)**

Nama : .......................................................................................

Tanggal : .......................................................................................

Petunjuk : ......................................................................................

Dihadapan saudara disajikan produk makanan berupa siomay ikan. Saudara diminta untuk memberikan penilaian terhadap karakteristik mutu warna, aroma, tekstur, dan rasa dengan menggunakan skala penilaian sebagai berikut :

4 = Sangat Suka

3 = Suka

2 = Tidak Suka

1 = Sangat Tidak Suka

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Kode Sampel** | **Skor Penilaian Kesukaan** | | | |
| **Warna** | **Aroma** | **Tekstur** | **Rasa** |
| 102 |  |  |  |  |
| 222 |  |  |  |  |
| 427 |  |  |  |  |
| 532 |  |  |  |  |

Komentar :

................................................................................................................................................................................................................................................................................................................................................................................................

Lampiran 2

**Formulasi Produk**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bahan** | **Energi dan Zat Gizi (100 gram bahan)** | | | |
| **Energi** | **Protein** | **Lemak** | **KH** |
| Tenggiri | 112 | 21.4 | 2.3 | 0 |
| Lele | 158.9 | 16.3 | 10.4 | 0 |
| Kelor | 92 | 6.8 | 1.7 | 12.5 |
| Telur Ayam | 155.1 | 12.6 | 10.6 | 1.1 |
| Labu Siam | 20.1 | 0.9 | 0.3 | 4.3 |
| Tepung Sagu | 381 | 0.3 | 0.1 | 91.3 |
| Gula Pasir | 387 | 0 | 0 | 99.9 |
| Kulit Pangsit | 124 | 3.3 | 3.21 | 20.22 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tabel P0 (100:0:0) | | | | | |
| **Bahan** | **Berat** | **Energi dan Zat Gizi** | | | |
| **Energi** | **Protein** | **Lemak** | **KH** |
| Tenggiri | 166 | 185.92 | 35.52 | 3.82 | 0.00 |
| Lele | 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kelor | 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| Telur Ayam | 60 | 93.06 | 7.56 | 6.36 | 0.66 |
| Labu Siam | 133 | 26.73 | 1.20 | 0.40 | 5.72 |
| Tepung Sagu | 133 | 506.73 | 0.40 | 0.13 | 121.43 |
| Gula Pasir | 10 | 38.70 | 0.00 | 0.00 | 9.99 |
| Kulit Pangsit | 60 | 74.40 | 1.98 | 1.93 | 12.13 |
| Total | 562.00 | 925.54 | 46.66 | 12.64 | 149.93 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tabel P1 (15:70:15) | | | | | |
| **Bahan** | **Berat** | **Energi dan Zat Gizi** | | | |
| **Energi** | **Protein** | **Lemak** | **KH** |
| Tenggiri | 24.9 | 27.89 | 5.33 | 0.57 | 0.00 |
| Lele | 116.2 | 184.64 | 18.94 | 12.08 | 0.00 |
| Kelor | 24.9 | 22.91 | 1.69 | 0.42 | 3.11 |
| Telur Ayam | 60 | 93.06 | 7.56 | 6.36 | 0.66 |
| Labu Siam | 133 | 26.73 | 1.20 | 0.40 | 5.72 |
| Tepung Sagu | 133 | 506.73 | 0.40 | 0.13 | 121.43 |
| Gula Pasir | 10 | 38.70 | 0.00 | 0.00 | 9.99 |
| Kulit Pangsit | 60 | 74.40 | 1.98 | 1.93 | 12.13 |
| Total | 562.00 | 975.06 | 37.10 | 21.90 | 153.04 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Tabel P2 (10:80:10) | | | | | | |
| **Bahan** | **Berat** | **Energi dan Zat Gizi (per resep)** | | | |
| **Energi** | **Protein** | **Lemak** | **KH** |
| Tenggiri | 16.6 | 18.59 | 3.55 | 0.38 | 0.00 |
| Lele | 132.8 | 211.02 | 21.65 | 13.81 | 0.00 |
| Kelor | 16.6 | 15.27 | 1.13 | 0.28 | 2.08 |
| Telur Ayam | 60 | 93.06 | 7.56 | 6.36 | 0.66 |
| Labu Siam | 133 | 26.73 | 1.20 | 0.40 | 5.72 |
| Tepung Sagu | 133 | 506.73 | 0.40 | 0.13 | 121.43 |
| Gula Pasir | 10 | 38.70 | 0.00 | 0.00 | 9.99 |
| Kulit Pangsit | 60 | 74.40 | 1.98 | 1.93 | 12.13 |
| Total | 562.00 | 984.51 | 37.46 | 23.29 | 152.01 |

Tabel P3 (0:95:5)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bahan** | **Berat** | **Energi dan Zat Gizi (per resep)** | | | |
| **Energi** | **Protein** | **Lemak** | **KH** |
| Tenggiri | 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| Lele | 157.7 | 250.59 | 25.71 | 16.40 | 0.00 |
| Kelor | 8.3 | 7.64 | 0.56 | 0.14 | 1.04 |
| Telur Ayam | 60 | 93.06 | 7.56 | 6.36 | 0.66 |
| Labu Siam | 133 | 26.73 | 1.20 | 0.40 | 5.72 |
| Tepung Sagu | 133 | 506.73 | 0.40 | 0.13 | 121.43 |
| Gula Pasir | 10 | 38.70 | 0.00 | 0.00 | 9.99 |
| Kulit Pangsit | 60 | 74.40 | 1.98 | 1.93 | 12.13 |
| Total | 562.00 | 997.84 | 37.41 | 25.36 | 150.97 |

**Lampiran 3. Formulir Penentuan Taraf Perlakuan Terbaik**

**PENENTUAN TARAF PERLAKUAN TERBAIK**

Nama :

Produk : Substitusi Ikan Lele (*Clarias Sp.*) Dan Daun Kelor (*Moringa Oleifera*) Pada Siomay Ikan Tenggiri Sebagai Pemberian Makanan Tambahan (PMT) Pada Balita Gizi Kurang

Petunjuk :

Bapak/Ibu/Saudara dimohon untuk mengemukakan pendapat tentang urutan (ranking) pentingnya variabel berikut terhadap mutu produk *Siomay* subtitusi ikan lele dan daun kelor, dengan mengurutkan 10 variabel dari tertinggi ke terendah dengan mencantumkan angka 1 – 10. Angka terendah untuk variabel kurang penting dan angka tertinggi untuk variabel terpenting. Pemberian nilai boleh sama apabila dirasa variabel yang dinilai sama pentingnya.

|  |  |
| --- | --- |
| **Variabel** | **Ranking** |
| Nilai Energi |  |
| Kadar Karbohidrat |  |
| Kadar Protein |  |
| Kadar Lemak |  |
| Kadar Air |  |
| Kadar Abu |  |
| Aroma |  |
| Warna |  |
| Rasa |  |
| Tekstur |  |

Terimakasih atas partisipasinya ☺

**Lampiran 4. Output SPSS Hasil Analisis Kadar Air Siomay**

**Kadar Air *Siomay* Ikan Lele pada Setiap Taraf Perlakuan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Taraf Perlakuan** | **Kadar Air** | | |
| **1** | **2** | **3** |
| P0 | 33,26 | 271,1 | 32,24 |
| P1 | 25,94 | 34,26 | 33,33 |
| P2 | 28,16 | 34,34 | 32,46 |
| P3 | 31,78 | 32,39 | 33,72 |

| **Descriptives** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Air | |  |  |  |  | | |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | | | Maximum |
|  | Lower Bound | Upper Bound |
| P0 | 3 | 30.8667 | 3.30166 | 1.90621 | 22.6649 | 39.0684 | 27.10 | | | 33.26 |
| P1 | 3 | 31.1767 | 4.55886 | 2.63206 | 19.8518 | 42.5015 | 25.94 | | | 34.26 |
| P2 | 3 | 31.6533 | 3.16799 | 1.82904 | 23.7836 | 39.5230 | 28.16 | | | 34.34 |
| P3 | 3 | 32.6300 | .99202 | .57274 | 30.1657 | 35.0943 | 31.78 | | | 33.72 |
| Total | 12 | 31.5817 | 2.87223 | .82914 | 29.7567 | 33.4066 | 25.94 | | | 34.34 |

**Hasil Analisis Kadar Air *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Oneway Anova* pada Tingkat Kepercayaan 95%**

| **ANOVA** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Kadar\_Air |
|  | Sum of Squares | Df | Mean Square | F | Sig. |
| Between Groups | 5.338 | 3 | 1.779 | .167 | .916 |
| Within Groups | 85.409 | 8 | 10.676 |  |  |
| Total | 90.747 | 11 |  |  |  |

**Lampiran 5. Output SPSS Hasil Analisis Kadar Abu Siomay**

**Hasil Analisis Kadar Abu *Siomay* Ikan Lele**

|  |  |  |  |
| --- | --- | --- | --- |
| **Taraf Perlakuan** | **Kadar Abu** | | |
| **1** | **2** | **3** |
| P0 | 0,86 | 1,54 | 0,91 |
| P1 | 1,1 | 1,29 | 0,63 |
| P2 | 1,18 | 1,06 | 0,41 |
| P3 | 0,9 | 1,01 | 1,08 |

**Hasil Analisis Kadar Abu *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Oneway Anova* pada Tingkat Kepercayaan 95%**

| **Descriptives** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Abu | |  |  |  |  | | |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | | | Maximum |
|  | Lower Bound | Upper Bound |
| P0 | 3 | 1.1033 | .37899 | .21881 | .1619 | 2.0448 | .86 | | | 1.54 |
| P1 | 3 | 1.0067 | .33975 | .19616 | .1627 | 1.8507 | .63 | | | 1.29 |
| P2 | 3 | .8833 | .41429 | .23919 | -.1458 | 1.9125 | .41 | | | 1.18 |
| P3 | 3 | .9967 | .09074 | .05239 | .7713 | 1.2221 | .90 | | | 1.08 |
| Total | 12 | .9975 | .29400 | .08487 | .8107 | 1.1843 | .41 | | | 1.54 |

| **ANOVA** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Abu |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .073 | 3 | .024 | .222 | .879 |
| Within Groups | .878 | 8 | .110 |  |  |
| Total | .951 | 11 |  |  |  |

|  |
| --- |
| **Lampiran 6. Output SPSS Hasil Analisis Kadar Protein Siomay** |

**Hasil Analisis Kadar Protein *Siomay* Ikan Lele**

|  |  |  |  |
| --- | --- | --- | --- |
| **Taraf Perlakuan** | **Kadar Protein** | | |
| **1** | **2** | **3** |
| P0 | 3,12 | 4,02 | 4,88 |
| P1 | 5,11 | 4,26 | 4,54 |
| P2 | 5,33 | 5,57 | 4,56 |
| P3 | 6,24 | 5,22 | 6,24 |

**Hasil Analisis Kadar Protein *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Oneway Anova* pada Tingkat Kepercayaan 95%**

| **Descriptives** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Protein | |  |  |  |  | | |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum | | |
|  | Lower Bound | Upper Bound |
| P0 | 3 | 4.0067 | .88008 | .50811 | 1.8204 | 6.1929 | 3.12 | 4.88 | | |
| P1 | 3 | 4.6367 | .43317 | .25009 | 3.5606 | 5.7127 | 4.26 | 5.11 | | |
| P2 | 3 | 5.1533 | .52767 | .30465 | 3.8425 | 6.4641 | 4.56 | 5.57 | | |
| P3 | 3 | 5.8900 | .58043 | .33511 | 4.4481 | 7.3319 | 5.22 | 6.24 | | |
| Total | 12 | 4.9217 | .89870 | .25943 | 4.3507 | 5.4927 | 3.12 | 6.24 | | |

| **ANOVA** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Protein |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 5.729 | 3 | 1.910 | 4.843 | .033 |
| Within Groups | 3.155 | 8 | .394 |  |  |
| Total | 8.884 | 11 |  |  |  |

**Hasil Analisis Lanjut Kadar Protein *Siomay* Ikan Lele dengan *Duncan Multiple Random Test* (DMRT) pada Tingkat Kepercayaan 95%**

| Perlakuan | N | Subset for alpha = 0.05 | |
| --- | --- | --- | --- |
| 1 | 2 |
| 0 | 3 | 4.0067 |  |
| 1 | 3 | 4.6367 |  |
| 2 | 3 | 5.1533 | 5.1533 |
| 3 | 3 |  | 5.8900 |
| Sig. |  | .064 | .189 |
| Means for groups in homogeneous subsets are displayed. | | | |

**Lampiran 7. Output SPSS Hasil Analisis Kadar Lemak Siomay**

**Hasil Analisis Kadar Lemak *Siomay* Ikan Lele**

|  |  |  |  |
| --- | --- | --- | --- |
| **Taraf Perlakuan** | **Kadar Lemak** | | |
| **1** | **2** | **3** |
| P0 | 1,88 | 2,01 | 1,71 |
| P1 | 1,53 | 2,04 | 2,49 |
| P2 | 2,29 | 2,31 | 1,52 |
| P3 | 1,65 | 1,59 | 2,03 |

**Hasil Analisis Kadar Lemak *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Oneway Anova* pada Tingkat Kepercayaan 95%**

| **Descriptives** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Lemak | |  |  |  |  | | |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | | | Maximum |
|  | Lower Bound | Upper Bound |
| P0 | 3 | 1.8667 | .15044 | .08686 | 1.4929 | 2.2404 | 1.71 | | | 2.01 |
| P1 | 3 | 2.0200 | .48031 | .27731 | .8268 | 3.2132 | 1.53 | | | 2.49 |
| P2 | 3 | 2.0400 | .45044 | .26006 | .9210 | 3.1590 | 1.52 | | | 2.31 |
| P3 | 3 | 1.7567 | .23861 | .13776 | 1.1639 | 2.3494 | 1.59 | | | 2.03 |
| Total | 12 | 1.9208 | .32865 | .09487 | 1.7120 | 2.1296 | 1.52 | | | 2.49 |

| **ANOVA** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Kadar\_Lemak |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .162 | 3 | .054 | .420 | .744 |
| Within Groups | 1.026 | 8 | .128 |  |  |
| Total | 1.188 | 11 |  |  |  |

**Lampiran 8. Output SPSS Hasil Analisis Kadar Karbohidrat Siomay**

**Hasil Analisis Kadar Karbohidrat *Siomay* Ikan Lele**

|  |  |  |  |
| --- | --- | --- | --- |
| **Taraf Perlakuan** | **Kadar Abu** | | |
| **1** | **2** | **3** |
| P0 | 60,88 | 65,33 | 60,26 |
| P1 | 66,32 | 58,15 | 59,01 |
| P2 | 63,04 | 56,72 | 61,05 |
| P3 | 59,46 | 59,79 | 56,93 |

**Hasil Analisis Kadar Karbohidrat *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Oneway Anova* pada Tingkat Kepercayaan 95%**

| **Descriptives** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Karbohidrat | |  |  |  |  | |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | | Minimum | Maximum |
|  | Lower Bound | Upper Bound | |
| P0 | 3 | 62.1567 | 2.76562 | 1.59673 | 55.2865 | 69.0268 | | 60.26 | 65.33 |
| P1 | 3 | 61.1600 | 4.48933 | 2.59192 | 50.0079 | 72.3121 | | 58.15 | 66.32 |
| P2 | 3 | 60.2700 | 3.23139 | 1.86565 | 52.2428 | 68.2972 | | 56.72 | 63.04 |
| P3 | 3 | 58.7267 | 1.56468 | .90337 | 54.8398 | 62.6136 | | 56.93 | 59.79 |
| Total | 12 | 60.5783 | 3.02182 | .87232 | 58.6584 | 62.4983 | | 56.72 | 66.32 |

| **ANOVA** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Karbohidrat |  |  |  |  |  |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 19.060 | 3 | 6.353 | .625 | .619 |
| Within Groups | 81.386 | 8 | 10.173 |  |  |
| Total | 100.445 | 11 |  |  |  |

**Lampiran 9. Hasil Analisis Energi *Siomay* Ikan Lele**

|  |  |  |  |
| --- | --- | --- | --- |
| **Taraf Perlakuan** | **Nilai Energi** | | |
| **1** | **2** | **3** |
| P0 | 272,92 | 295,49 | 275,95 |
| P1 | 299,49 | 268 | 276,61 |
| P2 | 294,09 | 269,95 | 276,12 |
| P3 | 277,53 | 274,35 | 270,95 |

| **Descriptives** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Energi | |  |  |  |  | | |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | | | Maximum |
|  | Lower Bound | Upper Bound |
| P0 | 3 | 2.8145E2 | 12.25015 | 7.07263 | 251.0223 | 311.8844 | 272.92 | | | 295.49 |
| P1 | 3 | 2.8137E2 | 16.27496 | 9.39635 | 240.9374 | 321.7959 | 268.00 | | | 299.49 |
| P2 | 3 | 2.8005E2 | 12.54146 | 7.24082 | 248.8986 | 311.2080 | 269.95 | | | 294.09 |
| P3 | 3 | 2.7428E2 | 3.29061 | 1.89984 | 266.1023 | 282.4510 | 270.95 | | | 277.53 |
| Total | 12 | 2.7929E2 | 10.74599 | 3.10210 | 272.4598 | 286.1152 | 268.00 | | | 299.49 |

| **ANOVA** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Energi |  |  |  |  |  |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 104.126 | 3 | 34.709 | .238 | .867 |
| Within Groups | 1166.114 | 8 | 145.764 |  |  |
| Total | 1270.240 | 11 |  |  |  |

**Lampiran 10. Output SPSS Hasil Analisis Mutu Organoleptik Warna Siomay**

**Hasil Analisis Mutu Organoleptik Warna *Siomay* Ikan Lele Substitusi Daun Kelor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Panelis | Taraf Perlakuan | | | |
| P0 | P1 | P2 | P3 |
| 1 | 4 | 4 | 4 | 4 |
| 2 | 2 | 2 | 4 | 4 |
| 3 | 4 | 3 | 3 | 3 |
| 4 | 3 | 2 | 2 | 2 |
| 5 | 3 | 3 | 3 | 3 |
| 6 | 4 | 4 | 4 | 4 |
| 7 | 3 | 4 | 3 | 4 |
| 8 | 3 | 3 | 4 | 3 |
| 9 | 3 | 3 | 4 | 3 |
| 10 | 4 | 3 | 2 | 3 |
| 11 | 3 | 3 | 4 | 4 |
| 12 | 2 | 3 | 4 | 3 |
| 13 | 3 | 3 | 3 | 3 |
| 14 | 4 | 3 | 2 | 3 |
| 15 | 2 | 2 | 3 | 3 |
| 16 | 4 | 2 | 1 | 2 |
| 17 | 4 | 4 | 4 | 4 |
| 18 | 3 | 4 | 2 | 4 |
| 19 | 3 | 3 | 3 | 4 |
| 20 | 4 | 3 | 3 | 3 |
| Jumlah | 65 | 61 | 62 | 66 |
| Modus | 3 | 3 | 4 | 3 |
| Rata-Rata | 3.25 | 3.05 | 3.1 | 3.3 |
| Tingkat Penerimaan (100%) | 85 | 80 | 75 | 90 |

**Hasil Analisis Tingkat Kesukaan terhadap Warna *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Kruskal-Wallis* pada Tingkat Kepercayaan 95%**

| **Descriptive Statistics** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | N | Mean | Std. Deviation | Minimum | Maximum |
| Warna | 80 | 3.1750 | .74247 | 1.00 | 4.00 |
| Taraf\_Perlakuan | 80 | 1.5000 | 1.12509 | .00 | 3.00 |

| **Ranks** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | Taraf\_Perlakuan | | | N | Mean Rank |
| Warna | 0 | | | 20 | 42.45 |
| 1 | | | 20 | 36.25 |
| 2 | | | 20 | 39.60 |
| 3 | | | 20 | 43.70 |
| Total | | | 80 |  |
| **Test Statisticsa,b** | | |
|  | | Warna |
| Chi-Square | | 1.435 |
| Df | | 3 |
| Asymp. Sig. | | .697 |
| a. Kruskal Wallis Test | | |
| b. Grouping Variable: Taraf\_Perlakuan | | |

**Lampiran 11. Output SPSS Hasil Analisis Mutu Organoleptik Rasa Siomay**

**Hasil Analisis Mutu Organoleptik Rasa *Siomay* Ikan Tenggiri Substitusi Ikan Lele Dan Daun Kelor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Panelis | Taraf Perlakuan | | | |
| P0 | P1 | P2 | P3 |
| 1 | 4 | 3 | 3 | 3 |
| 2 | 2 | 2 | 3 | 3 |
| 3 | 2 | 2 | 2 | 2 |
| 4 | 3 | 3 | 3 | 4 |
| 5 | 3 | 2 | 2 | 2 |
| 6 | 4 | 2 | 2 | 3 |
| 7 | 3 | 3 | 3 | 2 |
| 8 | 2 | 3 | 4 | 3 |
| 9 | 2 | 3 | 4 | 3 |
| 10 | 3 | 1 | 2 | 2 |
| 11 | 2 | 2 | 3 | 2 |
| 12 | 3 | 4 | 4 | 4 |
| 13 | 1 | 3 | 3 | 2 |
| 14 | 3 | 2 | 2 | 3 |
| 15 | 2 | 1 | 3 | 4 |
| 16 | 3 | 3 | 2 | 3 |
| 17 | 3 | 4 | 3 | 4 |
| 18 | 2 | 4 | 4 | 2 |
| 19 | 3 | 2 | 4 | 2 |
| 20 | 3 | 2 | 1 | 3 |
| Jumlah | 53 | 51 | 57 | 56 |
| Modus | 3 | 2 | 3 | 2,3 |
| Rata-Rata | 2.65 | 2.55 | 2.85 | 2.8 |
| Tingkat Penerimaan (100%) | 65 | 50 | 65 | 60 |

**Hasil Analisis Tingkat Kesukaan terhadap Aroma *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Kruskal-Wallis* pada Tingkat Kepercayaan 95%**

| **Descriptive Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | N | | | Mean | Std. Deviation | | Minimum | Maximum |
| Rasa | | 80 | | | 2.7125 | .81433 | | 1.00 | 4.00 |
| Taraf\_Perlakuan | | 80 | | | 1.5000 | 1.12509 | | .00 | 3.00 |
| **Ranks** | | | | | | |
|  | Taraf\_Perlakuan | | N | Mean Rank | | |
| Rasa | 0 | | 20 | 39.12 | | |
| 1 | | 20 | 36.38 | | |
| 2 | | 20 | 44.20 | | |
| 3 | | 20 | 42.30 | | |
| Total | | 80 |  | | |

| **Test Statisticsa,b** | |
| --- | --- |
|  | Rasa |
| Chi-Square | 1.514 |
| Df | 3 |
| Asymp. Sig. | .679 |
| a. Kruskal Wallis Test | |
| b. Grouping Variable: Taraf\_Perlakuan | |

**Lampiran 12. Output SPSS Hasil Analisis Mutu Organoleptik Aroma Siomay**

**Hasil Analisis Mutu Organoleptik Aroma *Siomay* Ikan Lele Substitusi Daun Kelor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Panelis | Taraf Perlakuan | | | |
| P0 | P1 | P2 | P3 |
| 1 | 2 | 4 | 4 | 2 |
| 2 | 3 | 4 | 3 | 3 |
| 3 | 2 | 3 | 2 | 4 |
| 4 | 4 | 3 | 3 | 3 |
| 5 | 4 | 3 | 3 | 3 |
| 6 | 3 | 3 | 3 | 3 |
| 7 | 3 | 4 | 3 | 3 |
| 8 | 2 | 3 | 4 | 2 |
| 9 | 2 | 3 | 4 | 2 |
| 10 | 4 | 3 | 3 | 3 |
| 11 | 2 | 2 | 4 | 4 |
| 12 | 2 | 3 | 4 | 4 |
| 13 | 2 | 3 | 3 | 3 |
| 14 | 4 | 4 | 4 | 4 |
| 15 | 2 | 3 | 3 | 4 |
| 16 | 3 | 3 | 2 | 2 |
| 17 | 4 | 4 | 4 | 4 |
| 18 | 3 | 4 | 2 | 3 |
| 19 | 3 | 4 | 4 | 2 |
| 20 | 4 | 2 | 2 | 4 |
| Jumlah | 58 | 65 | 64 | 62 |
| Modus | 2 | 3 | 3,4 | 3 |
| Rata-Rata | 2.9 | 3.25 | 3.2 | 3.1 |
| Tingkat Penerimaan (100%) | 60 | 90 | 80 | 75 |

**Hasil Analisis Tingkat Kesukaan terhadap Aroma *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Kruskal-Wallis* pada Tingkat Kepercayaan 95%**

| **Descriptive Statistics** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  | N | Mean | Std. Deviation | Minimum | Maximum |
| Aroma | 80 | 3.1125 | .76297 | 2.00 | 4.00 |
| Taraf\_Perlakuan | 80 | 1.5000 | 1.12509 | .00 | 3.00 |

| **Ranks** | | | |
| --- | --- | --- | --- |
|  | Taraf\_Perlakuan | N | Mean Rank |
| Aroma | 0 | 20 | 34.75 |
| 1 | 20 | 44.08 |
| 2 | 20 | 43.00 |
| 3 | 20 | 40.18 |
| Total | 80 |  |

| **Test Statisticsa,b** | |
| --- | --- |
|  | Aroma |
| Chi-Square | 2.213 |
| Df | 3 |
| Asymp. Sig. | .529 |
| a. Kruskal Wallis Test | |
| b. Grouping Variable: Taraf\_Perlakuan | |

**Lampiran 13. Output SPSS Hasil Analisis Mutu Organoleptik Tekstur Siomay**

**Hasil Analisis Mutu Organoleptik Tekstur *Siomay* Ikan Lele Substitusi Daun Kelor**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Panelis | Taraf Perlakuan | | | |
| P0 | P1 | P2 | P3 |
| 1 | 4 | 4 | 2 | 4 |
| 2 | 4 | 4 | 4 | 4 |
| 3 | 3 | 3 | 3 | 4 |
| 4 | 4 | 3 | 2 | 4 |
| 5 | 4 | 2 | 2 | 2 |
| 6 | 4 | 3 | 2 | 3 |
| 7 | 3 | 4 | 4 | 3 |
| 8 | 3 | 3 | 4 | 3 |
| 9 | 3 | 3 | 4 | 3 |
| 10 | 3 | 4 | 3 | 4 |
| 11 | 4 | 3 | 4 | 4 |
| 12 | 4 | 3 | 4 | 3 |
| 13 | 2 | 3 | 3 | 2 |
| 14 | 3 | 3 | 3 | 3 |
| 15 | 2 | 1 | 3 | 2 |
| 16 | 4 | 4 | 4 | 4 |
| 17 | 3 | 4 | 4 | 4 |
| 18 | 3 | 3 | 2 | 3 |
| 19 | 3 | 4 | 3 | 3 |
| 20 | 3 | 3 | 3 | 3 |
| Jumlah | 66 | 64 | 63 | 65 |
| Modus | 3 | 3 | 4 | 3 |
| Rata-Rata | 3.3 | 3.2 | 3.15 | 3.25 |
| Tingkat Penerimaan (100%) | 90 | 90 | 75 | 85 |

**Hasil Analisis Tingkat Kesukaan terhadap Aroma *Siomay* Ikan Lele Substitusi Daun Kelor dengan Uji *Kruskal-Wallis* pada Tingkat Kepercayaan 95%**

|  | N | Mean | Std. Deviation | Minimum | Maximum |
| --- | --- | --- | --- | --- | --- |
| Tekstur | 80 | 3.2250 | .72871 | 1.00 | 4.00 |
| Taraf\_Perlakuan | 80 | 1.5000 | 1.12509 | .00 | 3.00 |

| **Ranks** | | | |
| --- | --- | --- | --- |
|  | Taraf\_Perlakuan | N | Mean Rank |
| Tekstur | 0 | 20 | 42.20 |
| 1 | 20 | 40.20 |
| 2 | 20 | 38.60 |
| 3 | 20 | 41.00 |
| Total | 80 |  |

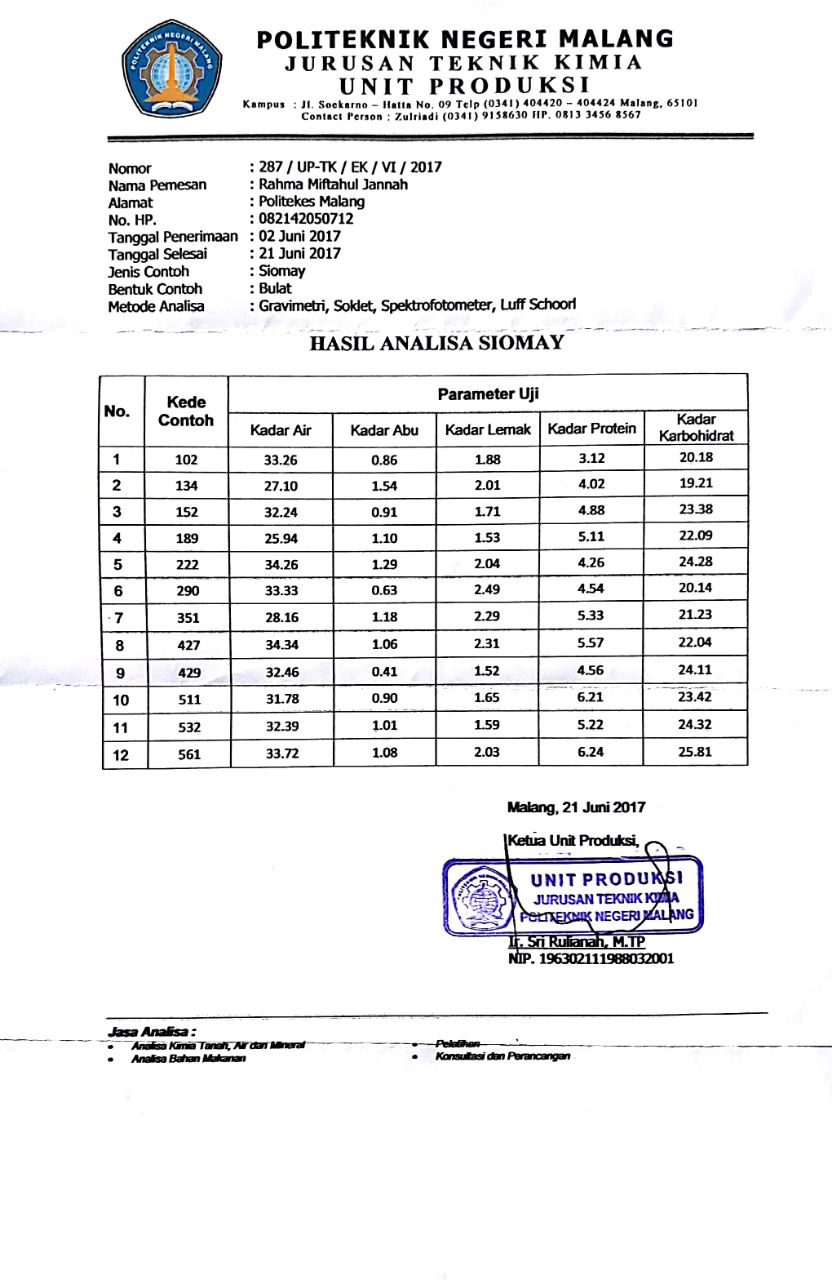
| **Test Statisticsa,b** | |
| --- | --- |
|  | Tekstur |
| Chi-Square | .301 |
| df | 3 |
| Asymp. Sig. | .960 |
| a. Kruskal Wallis Test | |
| b. Grouping Variable: Taraf\_Perlakuan | |

**Lampiran 14. Hasil Penentuan Taraf Perlakuan Terbaik**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variabel** | **Panelis** | | | | | | | | | | **Jumlah** | **Rata-rata** | **Ranking** | **BV** | **BN** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **Nilai Energi** | 10 | 9 | 9 | 10 | 10 | 3 | 9 | 10 | 10 | 10 | 90 | 9 | 1 | 1.00 | 0.13 |
| **Kadar Air** | 5 | 3 | 5 | 9 | 3 | 2 | 2 | 2 | 8 | 4 | 43 | 4.3 | 9 | 0.48 | 0.06 |
| **Kadar Abu** | 4 | 4 | 5 | 9 | 2 | 1 | 1 | 1 | 8 | 3 | 38 | 3.8 | 10 | 0.42 | 0.06 |
| **Kadar Karbohidrat** | 9 | 8 | 6 | 9 | 8 | 4 | 5 | 8 | 10 | 8 | 75 | 7.5 | 4 | 0.83 | 0.11 |
| **Kadar Protein** | 10 | 10 | 10 | 10 | 9 | 6 | 4 | 9 | 10 | 7 | 85 | 8.5 | 2 | 0.94 | 0.12 |
| **Kadar Lemak** | 9 | 7 | 5 | 9 | 7 | 5 | 3 | 7 | 10 | 6 | 68 | 6.8 | 6 | 0.76 | 0.10 |
| **Aroma** | 8 | 6 | 7 | 10 | 6 | 9 | 6 | 5 | 9 | 6 | 72 | 7.2 | 5 | 0.80 | 0.11 |
| **Warna** | 6 | 6 | 7 | 9 | 5 | 8 | 7 | 4 | 9 | 6 | 67 | 6.7 | 7 | 0.74 | 0.10 |
| **Rasa** | 8 | 5 | 8 | 10 | 10 | 10 | 10 | 6 | 9 | 5 | 81 | 8.1 | 3 | 0.90 | 0.12 |
| **Tekstur** | 7 | 5 | 8 | 9 | 4 | 7 | 8 | 3 | 9 | 5 | 65 | 6.5 | 8 | 0.72 | 0.10 |

**Lampiran 15. Perhitungan Ne dan Nh pada Setiap Taraf Perlakuan**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Variabel** | **Bobot Variabel** | **Bobot Normal** | **Taraf Perlakuan** | | | | | | | |
| **P0** | | **P1** | | **P2** | | **P3** | |
| **Ne** | **Nh** | **Ne** | **Nh** | **Ne** | **Nh** | **Ne** | **Nh** |
| 1 | **Nilai Energi** | 1.00 | 0.13 | 1.05 | 0.14 | 0.38 | 0.05 | 0.45 | 0.06 | 0.40 | 0.05 |
| 2 | **Kadar Air** | 0.48 | 0.06 | 0.57 | 0.04 | 0.63 | 0.04 | 0.57 | 0.04 | 0.50 | 0.03 |
| 3 | **Kadar Abu** | 0.42 | 0.06 | 0.30 | 0.02 | 0.57 | 0.03 | 0.61 | 0.03 | 0.60 | 0.03 |
| 4 | **Kadar Karbohidrat** | 0.83 | 0.11 | 0.96 | 0.10 | 0.49 | 0.05 | 0.43 | 0.05 | 0.46 | 0.05 |
| 5 | **Kadar Protein** | 0.94 | 0.03 | 0.33 | 0.01 | 0.44 | 0.01 | 0.59 | 0.02 | 0.70 | 0.02 |
| 6 | **Kadar Lemak** | 0.76 | 0.10 | 0.45 | 0.05 | 0.51 | 0.05 | 0.66 | 0.07 | 0.45 | 0.05 |
| 7 | **Aroma** | 0.80 | 0.11 | 0.00 | 0.00 | 1.00 | 0.11 | 0.88 | 0.09 | 0.61 | 0.06 |
| 8 | **Warna** | 0.74 | 0.10 | 0.75 | 0.07 | 0.00 | 0.00 | 0.45 | 0.04 | 1.10 | 0.11 |
| 9 | **Rasa** | 0.90 | 0.12 | 0.30 | 0.04 | 0.00 | 0.00 | 1.00 | 0.12 | 0.82 | 0.10 |
| 10 | **Tekstur** | 0.72 | 0.09 | 0.90 | 0.09 | 0.44 | 0.04 | 0.00 | 0.00 | 0.67 | 0.06 |
|  |  | 7.59 |  |  | 0.55 |  | 0.39 |  | 0.51 |  | 0.57 |

Lampiran. 16 Hasil Analisis Proksimat

Lampiran. 17 Dokumentasi

1. Penimbangan

1. **Pengolahan**

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