

LAMPIRAN

Lampiran 1. Formulir Uji Skala Kesukaan (*Hedonic scale Test*)

UJI HEDONIK

Nama :
Tanggal Uji :
Contoh : "Flakes"
Kriteria mutu yang dinilai : warna, aroma, rasa dan tekstur

Instruksi :

Dihadapan saudara disajikan 3 buah contoh "Flakes". Saudara diminta untuk memberikan penilaian terhadap warna, rasa, aroma dan tekstur dengan menggunakan skala penilaian sebagai berikut :

- 1 = Sangat tidak suka
- 2 = Tidak suka
- 3 = Suka
- 4 = Sangat suka

| Kode Contoh | Kriteria Penilaian | | | |
|-------------|--------------------|---------------|---------|-------|
| | Warna | Flavor (Rasa) | Tekstur | Aroma |
| 731 | | | | |
| 468 | | | | |
| 924 | | | | |

Kritik dan Saran :

Terimakasih atas partisipasinya

Lampiran 2. Formulir Penentuan Taraf Perlakuan Terbaik

PENENTUAN TARAF PERLAKUAN TERBAIK

Nama :

Tanggal Uji :

Produk : “*Flakes* berbahan tepung kecambah kacang tolo dan tepung beras sebagai makanan tambahan ibu hamil KEK”

Petunjuk :

Bapak/ Ibu dimohon untuk mengemukakan pendapat tentang urutan (rangking) pentingnya variabel berikut terhadap mutu produk “*Flakes* berbahan tepung kecambah kacang tolo dan tepung beras sebagai makanan tambahan ibu hamil KEK” dengan menggunakan 10 variabel dari yang terendah ke tertinggi 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 | Rangking |
|--------------|----------|
| Nilai Energi | |
| Protein | |
| Lemak | |
| Karbohidrat | |
| Kadar Air | |
| Kadar Abu | |
| Warna | |
| Aroma | |
| Rasa | |
| Tekstur | |

Terimakasih atas partisipasinya

Lampiran 3. Hasil Uji Organoleptik Flakes Tepung kecambah kacang tolo dan Tepung Beras

| Panelis | Warna | | | Rasa | | | Tekstur | | | Aroma | | |
|-----------|-------|-----|-----|----------|----------|----------|---------|----------|----------|-------|-----|-----|
| | P1 | P2 | P3 | P1 | P2 | P3 | P1 | P2 | P3 | P1 | P2 | P3 |
| 1 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 2 | 2 | 2 |
| 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 3 |
| 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 3 |
| 4 | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 3 | 4 |
| 5 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 |
| 6 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| 7 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| 8 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 |
| 9 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 4 |
| 10 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 |
| 11 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| 12 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 13 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 |
| 14 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 4 | 4 |
| 15 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 |
| 16 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 3 | 3 | 4 | 3 |
| 17 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 4 |
| 18 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 |
| 19 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| 20 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 |
| Jumlah | 62 | 62 | 62 | 67 | 61 | 67 | 60 | 57 | 59 | 64 | 66 | 66 |
| Rata-rata | 3,1 | 3,1 | 3,1 | 3,3 5 | 3,0 5 | 3,3 5 | 3 | 2,8 5 | 2,9 5 | 3,2 | 3,3 | 3,3 |
| Median | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Modus | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

**Lampiran 4. Hasil Ranking Pentingnya Peranan Variabel Terhadap Mutu
Flakes Tepung kecambah kacang tolo dan Tepung Beras**

| responden | variabel | | | | | | | | | |
|----------------|--------------|---------|-------|-------|-----------|-----------|-------|-------|-------|---------|
| | nilai energi | protein | lemak | KH | kadar air | kadar abu | warna | aroma | rasa | tekstur |
| 1 | 7 | 10 | 8 | 9 | 2 | 1 | 6 | 5 | 4 | 3 |
| 2 | 9 | 10 | 10 | 9 | 8 | 8 | 7 | 7 | 8 | 7 |
| 3 | 11 | 10 | 5 | 4 | 6 | 3 | 1 | 7 | 9 | 8 |
| 4 | 11 | 10 | 10 | 10 | 9 | 9 | 8 | 11 | 11 | 10 |
| 5 | 11 | 11 | 10 | 8 | 8 | 8 | 9 | 9 | 11 | 11 |
| 6 | 11 | 9 | 10 | 8 | 5 | 6 | 3 | 1 | 4 | 2 |
| 7 | 11 | 10 | 5 | 4 | 6 | 3 | 1 | 7 | 9 | 8 |
| 8 | 11 | 11 | 9 | 11 | 5 | 4 | 5 | 9 | 11 | 9 |
| 9 | 11 | 10 | 8 | 9 | 7 | 5 | 3 | 2 | 4 | 1 |
| 10 | 11 | 11 | 11 | 11 | 8 | 7 | 9 | 9 | 9 | 9 |
| jumlah | 104 | 102 | 86 | 83 | 64 | 54 | 52 | 67 | 80 | 68 |
| rata-rata | 10,4 | 10,2 | 8,6 | 8,3 | 6,4 | 5,4 | 5,2 | 6,7 | 8 | 6,8 |
| ranking | I | II | III | IV | VIII | IX | X | VII | V | VI |
| bobot variabel | 1 | 0,981 | 0,827 | 0,798 | 0,615 | 0,519 | 0,5 | 0,644 | 0,769 | 0,654 |

Lampiran 5. Hasil Nilai Penentuan Taraf Perlakuan Terbaik

| Variabel | bobot variabel | bobot normal | P1 | | P2 | | P3 | |
|--------------|----------------|--------------|----|-------|-------|----------|-------|----------|
| | | | Ne | Nh | Ne | Nh | Ne | Nh |
| nilai energi | 1 | 0,137 | 0 | 0 | 0,776 | 0,106312 | 1 | 0,137 |
| Protein | 0,981 | 0,134 | 0 | 0 | 0,662 | 0,088708 | 1 | 0,134 |
| Lemak | 0,827 | 0,113 | 0 | 0 | 1 | 0,113 | 0,949 | 0,107237 |
| karbohidrat | 0,798 | 0,109 | 1 | 0,109 | 0 | 0 | 0,005 | 0,000545 |
| kadar air | 0,615 | 0,084 | 0 | 0 | 1 | 0,084 | 0,1 | 0,0084 |
| kadar abu | 0,519 | 0,071 | 0 | 0 | 0,929 | 0,065959 | 1 | 0,071 |
| Warna | 0,5 | 0,068 | 0 | 0 | 0 | 0 | 0 | 0 |
| Aroma | 0,644 | 0,088 | 0 | 0 | 1 | 0,088 | 1 | 0,088 |
| Rasa | 0,769 | 0,105 | 1 | 0,105 | 0 | 0 | 1 | 0,105 |
| Tekstur | 0,654 | 0,089 | 1 | 0,089 | 0 | 0 | 0,666 | 0,059274 |
| Jumlah | 7,308 | | | 0,303 | | 0,545979 | | 0,710456 |

Data hasil pengamatan mutu flakes tepung kecambah kacang tolo dan tepung beras (data penelitian)

| Perlakuan | nilai energi | protein | lemak | KH | kadar air | kadar abu | warna | aroma | rasa | tekstur |
|-----------|--------------|---------|-------|-------|-----------|-----------|-------|-------|------|---------|
| P1 | 437,59 | 9,87 | 15,55 | 69,43 | 2,39 | 2,37 | 3,1 | 3,2 | 3,35 | 3 |
| P2 | 463,32 | 10,36 | 18,34 | 65,8 | 2,59 | 2,9 | 3,1 | 3,3 | 3,05 | 2,85 |
| P3 | 470,71 | 10,61 | 18,2 | 65,82 | 2,41 | 2,94 | 3,1 | 3,3 | 3,35 | 2,95 |

Keterangan:

Ne : nilai efektifitas

Nh : nilai hasil

Warna kuning : nilai terendah

Warna merah : nilai tertinggi

Lampiran 6. Hasil Uji Statistik Mutu Organoleptik (Warna, Rasa, Aroma, Tekstur) Flakes

Kruskal-Wallis Test

| | Perlakuan | n | Mean Rank |
|---------------------|-----------|----|-----------|
| hasil orlep warna | p1 | 20 | 30,60 |
| | p2 | 20 | 30,45 |
| | p3 | 20 | 30,45 |
| | Total | 60 | |
| | Perlakuan | n | Mean Rank |
| hasil orlep rasa | p1 | 20 | 32,83 |
| | p2 | 20 | 25,48 |
| | p3 | 20 | 33,20 |
| | Total | 60 | |
| | Perlakuan | n | Mean Rank |
| hasil orlep aroma | p1 | 20 | 28,50 |
| | p2 | 20 | 31,30 |
| | p3 | 20 | 31,70 |
| | Total | 60 | |
| | Perlakuan | n | Mean Rank |
| hasil orlep tekstur | p1 | 20 | 32,10 |
| | p2 | 20 | 28,50 |
| | p3 | 20 | 30,90 |
| | Total | 60 | |
| | Perlakuan | n | Mean Rank |

Test Statistics

| hasil orlep warna | |
|---------------------|-------|
| Chi-Square | ,002 |
| Df | 2 |
| Asymp. Sig. | ,999 |
| hasil orlep rasa | |
| Chi-Square | 3,150 |
| Df | 2 |
| Asymp. Sig. | ,207 |
| hasil orlep aroma | |
| Chi-Square | ,534 |
| Df | 2 |
| Asymp. Sig. | ,766 |
| hasil orlep tekstur | |
| Chi-Square | ,635 |
| Df | 2 |

| | |
|-------------|------|
| Asymp. Sig. | ,728 |
|-------------|------|

Lampiran 7. Hasil Uji Statistik Nilai Energi

ANOVA

nilai energi dalam satuan kkal



| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 311,190 | 2 | 155,595 | 1,458 | ,305 |
| Within Groups | 640,307 | 6 | 106,718 | | |
| Total | 951,497 | 8 | | | |

Lampiran 8. Hasil Analisis Statistik *Oneway Anova* Mutu Kimia

| | | Sum of Squares | df | Mean Square | F | Sig. |
|--------------------|----------------|----------------|----|-------------|-------|------|
| Kadar Air (%) | Between Groups | ,072 | 2 | ,036 | 1,221 | ,359 |
| | Within Groups | ,176 | 6 | ,029 | | |
| | Total | ,248 | 8 | | | |
| Kadar Abu (%b/k) | Between Groups | ,060 | 2 | ,030 | 3,146 | ,116 |
| | Within Groups | ,057 | 6 | ,010 | | |
| | Total | ,118 | 8 | | | |
| Protein (gram) | Between Groups | ,850 | 2 | ,425 | 1,611 | ,275 |
| | Within Groups | 1,583 | 6 | ,264 | | |
| | Total | 2,433 | 8 | | | |
| Lemak (gram) | Between Groups | 14,823 | 2 | 7,412 | 1,940 | ,224 |
| | Within Groups | 22,922 | 6 | 3,820 | | |
| | Total | 37,745 | 8 | | | |
| Karbohidrat (gram) | Between Groups | 26,161 | 2 | 13,081 | 3,584 | ,095 |

| | | | | | | |
|--|---------------|--------|---|-------|--|--|
| | Within Groups | 21,898 | 6 | 3,650 | | |
| | Total | 48,059 | 8 | | | |

Lampiran 9. Uji Kadar Air, Kadar Abu, Protein, Lemak, dan Karbohidrat Produk

| | | | |
|--|---|--------------------------|------------------|
|  KAN <small>Kemeterian Kesehatan Republik Indonesia</small> <small>LP 118/10N</small> | FORMULIR Laporan Hasil Pengujian | No Bagian | F.IKM.7.2.1.1.P6 |
| | | Terbitan/Revisi | 2/0 |
|  BALITKABI | | Tanggal Terbit | 20-05-2018 |
| | | Tanggal Revisi | |
| | | Halaman | 1 dari 1 |
| | | Disetujui Manajer Teknis | <i>Zh</i> |

Nomor Kode Contoh : 010/Lab/P/2019
 Jenis Contoh : Flakes
 Tanggal Contoh Masuk : 28 Maret 2019
 Tanggal Selesai Pengujian : 8 April 2019
 Hasil Pengujian :

| Kode | Kadar air (%) SNI 01-2891-1992 Butir 5.1.1-5.1.3 | Kadar abu | | Kadar lemak | | Kadar protein | |
|------|--|---------------------------------------|-------|---------------------------------------|-------|---------------------------|-------|
| | | SNI 01-2891-1992 Butir 6.1.1-6.1.3 | | SNI 01-2891-1992 Butir 8.1.1-8.1.4 | | AOAC, 2005 No. 12.1.07 | |
| | | (%bb) | (%bk) | (%bb) | (%bk) | (%bb) | (%bk) |
| P11 | 2,59 | 2,73 | 2,80 | 11,52 | 11,83 | 9,67 | 9,92 |
| P12 | 2,43 | 2,67 | 2,74 | 16,39 | 16,80 | 9,84 | 10,08 |
| P13 | 2,15 | 2,65 | 2,71 | 17,64 | 18,03 | 9,51 | 9,62 |
| P21 | 2,54 | 2,70 | 2,77 | 17,97 | 18,44 | 10,52 | 10,80 |
| P22 | 2,75 | 2,78 | 2,85 | 17,67 | 18,16 | 9,99 | 10,27 |
| P23 | 2,48 | 3,00 | 3,08 | 17,96 | 18,42 | 9,77 | 10,02 |
| P31 | 2,34 | 2,90 | 2,97 | 16,87 | 17,28 | 9,89 | 10,13 |
| P32 | 2,33 | 2,85 | 2,92 | 18,36 | 18,80 | 11,22 | 11,49 |
| P33 | 2,57 | 2,85 | 2,93 | 18,06 | 18,54 | 9,95 | 10,22 |

Keterangan : bb = basis basah
 bk = basis kering

Malang, 16 April 2019
 Manajer Teknis Lab. Kimia Pangan

Zh

Ir. Erliana Ginting, MSc