**Lampiran 8. Hasil Analisis Kadar Gula Total Ekstrak Pisang pada Penelitian Pendahuluan**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Tingkat kematangan (M)** | **Kelompok Ulangan** | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** |
| v1  pisang ambon lumut | matang | 6,498 | 4,101 | 10,599 | 5,2995 |
| lewat matang | 8,122 | 5,925 | 14,047 | 7,0235 |
| **Sub Total** | | **14,62** | **10,026** | **24,646** | **12,323** |
| v2  pisang nangka | matang | 2,955 | 2,898 | 5,853 | 2,9265 |
| lewat matang | 7,305 | 5,94 | 13,245 | 6,6225 |
| **Sub Total** | | **10,26** | **8,838** | **19,098** | **9,549** |
| **TOTAL** | | **24,88** | **18,864** | **43,744** | **21,872** |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor M  Jk Faktor VM  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x m x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/m x r -FK  Σ(Total taraf tingkat kematangan)^2/m x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKM  JKT- JKK – JKV – JKM - JKVM | =  =  =  =  =  =  = | 239,192192  26,699576  4,52  3,85  14,69  1,94  1,70 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 1 | 4,524032 | 4,524032 |  | |
| Faktor V | 1 | 3,847538 | 3,847538 | 6,81 tn | 10,31 |
| Faktor M | 1 | 14,6882 | 14,6882 | 25,99 \* |
| Interaksi VM | 1 | 1,944392 | 1,944392 | 3,44 tn |
| Galat | 3 | 1,695414 | 0,565138 |  | |
| Total | 7 | 26,699576 |  | | |

Kesimpulan:

Berdasarkan tabel ANAVA, tingkat kematangan pisang berpengaruh nyata terhadap kadar gula total ekstrak pisang, namun varietas serta interaksinya tidak berpengaruh. Oleh karena itu perlu dilakukan uji lanjut.

**Uji Jarak Berganda Duncan terhadap Kadar Gula Total Ekstrak Pisang**

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,3758783

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | 2 | 9,5490 | - | - | a |
| 3,03 | 1,1389 | 1 | 12,3230 | 2,774 \* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,3758783

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | 2 | 8,2260 | - | - | a |
| 3,03 | 1,1389 | 1 | 13,6460 | 5,420\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Varietas Pisang (V) terhadap Kadar Gula Total Ekstrak Pisang**

Interaksi perlakuan (v1) terhadap (s)

Standar Kekeliruan (sδ) =  = = 0,3758783

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | 1 | 5,2995 | - | - | a |
| 3,03 | 1,1389 | 2 | 7,0235 | 1,724\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | 1 | 2,9265 | - | - | a |
| 3,03 | 1,1389 | 2 | 6,6225 | 3,696\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s1) terhadap (v)

Standar Kekeliruan (sδ) =  = = 0,3758783

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | 2 | 2,9265 | - | - | a |
| 3,03 | 1,1389 | 1 | 5,2995 | 2,373\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | 2 | 6,6225 | - | - | a |
| 3,03 | 1,1389 | 1 | 7,0235 | 0,401 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi Varietas Pisang (V) dan Tingkat Kematangan (M)

|  |  |  |
| --- | --- | --- |
| Varietas Pisang (V) | Tingkat Kematangan (M) | |
| Matang | Lewat Matang |
| V1 pisang ambon lumut | 5,29 B | 7,02 A |
| a | b |
| V2 pisang nangka | 2,92 A | 6,62 A |
| a | b |

Keterangan :

* Setiap huruf kecil dibaca secara horizontal dan setiap huruf besar dibaca secara vertikal.
* Setiap huruf yang berbeda pada taraf nyata menunjukkan adanya perbedaan yang nyata pada taraf 5%

**Lampiran 10. Hasil Analisis Kadar Air Metode Gravimetri**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Data Asli Analisis terhadap Kadar Air Serbuk Pisang Instan | | | | |  |  |  | |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** | |
| **1** | **2** | **3** |
| V1 | S1 (50% : 0%) | 0,65 | 0,53 | 0,57 | 1,75 | 0,58 | |
| S2 (49% : 1%) | 1,30 | 0,66 | 0,64 | 2,60 | 0,87 | |
| Pisang Ambon Lumut | S3 (47% : 3%) | 0,77 | 0,87 | 1,06 | 2,70 | 0,90 | |
| S4 (45% : 5%) | 0,99 | 1,06 | 0,92 | 2,97 | 0,99 | |
| **Sub Total** | | **3,71** | **3,12** | **3,19** | **10,02** | **3,34** | |
| V2 | S1 (50% : 0%) | 0,75 | 0,73 | 0,69 | 2,17 | 0,72 | |
| S2 (49% : 1%) | 1,27 | 1,04 | 0,79 | 3,10 | 1,03 | |
| Pisang nangka | S3 (47% : 3%) | 1,89 | 1,06 | 0,93 | 3,88 | 1,29 | |
| S4 (45% : 5%) | 1,61 | 1,07 | 1,03 | 3,71 | 1,24 | |
| **Sub Total** | | **5,52** | **3,90** | **3,44** | **12,86** | **4,29** | |
| **TOTAL** | | **9,22** | **7,03** | **6,63** | **22,88** | **7,63** | |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS - JKVS | =  =  =  =  =  =  = | 21,81  2,40  0,49  0,33  0,81  0,06  0,72 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 0,49 |  |  | |
| Faktor V | 1 | 0,33 | 0,335 | 6,553 \* | 4,6 |
| Faktor S | 3 | 0,81 | 0,270 | 5,289 \* | 3,34 |
| Interaksi VS | 3 | 0,06 | 0,019 | 0,372 tn | 3,34 |
| Galat | 14 | 0,72 | 0,051 |  | |
| Total | 23 | 2,40 |  | | |

Kesimpulan:

Berdasarkan tabel ANAVA, varietas pisang dan perbandingan sukrosa dengan dekstrin berpengaruh nyata terhadap kadar air serbuk pisang instan, oleh karena itu perlu dilakukan uji lanjut.

**Uji Jarak Berganda Duncan terhadap Kadar Air Serbuk Pisang Instan**

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,065256

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 3,3407 | - | - | a |
| 3,03 | 0,1977 | v2 | 4,2857 | 0,9450\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Uji Lanjut Duncan Faktor S

Standar Kekeliruan (sδ) =  = = 0,092286

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s2 | 1,3087 | - | - | - | a |
| 3,03 | 0,2796 | s4 | 1,9003 | 0,5917\* | - | - | b |
| 3,18 | 0,2935 | s3 | 2,1927 | 0,8840 \* | 0,2923 tn | - | bc |
| 3,27 | 0,3018 | s1 | 2,2247 | 0,9160 \* | 0,3243 \* | 0,032 tn | c |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Varietas Pisang (V) terhadap Perbandingan Sukrosa dengan Dekstrin (S)**

Interaksi perlakuan (v1) terhadap (s)

Standar Kekeliruan (sδ) =  = = 0,065256

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s1 | 0,5843 | - | - | - | a |
| 3,03 | 0,1977 | s2 | 0,8667 | 0,2823\* | - | - | b |
| 3,18 | 0,2075 | s3 | 0,9010 | 0,3167\* | 0,0343 tn | - | b |
| 3,27 | 0,2134 | s4 | 0,9887 | 0,4043\* | 0,1220 tn | 0,0877tn | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s1 | 0,7243 | - | - | - | a |
| 3,03 | 0,1977 | s2 | 1,0337 | 0,3093 \* | - | - | b |
| 3,18 | 0,2075 | s4 | 1,2360 | 0,5117\* | 0,2023 tn | - | bc |
| 3,27 | 0,2134 | s3 | 1,2917 | 0,5673\* | 0,2580 tn | 0,0557tn | bc |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Perbandingan Sukrosa dengan Dekstrin (S) terhadap Varietas Pisang (V)**

Interaksi perlakuan (s1) terhadap (v)

Standar Kekeliruan (sδ) =  = = 0,092286

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 0,5843 | - | - | a |
| 3,03 | 0,2796 | v2 | 0,7243 | 0,1400 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s2) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 0,8667 | - | - | a |
| 3,03 | 0,2796 | v2 | 1,0337 | 0,1670tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s3) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 0,9010 | - | - | a |
| 3,03 | 0,2796 | v2 | 1,2917 | 0,3907\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s4) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 0,9887 | - | - | a |
| 3,03 | 0,2796 | v2 | 1,2360 | 0,2473 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi Varietas Pisang (V) dan Perbandingan Sukrosa dengan Dekstrin (S)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Varietas Pisang (V) | Perbandingan Sukrosa dengan Dekstrin (S) | | | |
| s1 (50%:0%) | s2 (49%:1%) | s3 (47%:3%) | s4 (45%:5%) |
| V1 pisang ambon lumut | 0,58 A | 0,87 A | 0,90 A | 0,99 A |
| a | b | b | b |
| V2 pisang nangka | 0,72 A | 1,03 A | 1,29 B | 1,24 A |
| a | ab | bc | bc |

**Lampiran 11. Hasil Analisis Kadar Gula Total Metode Luff Schoorl**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Data Asli Analisis Kimia terhadap Kadar Gula Total Serbuk Pisang Instan | | | | | | | |  |  |  | |
| **Varietas Pisang (V)** | | | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Perlakuan** | **Rata-rata** | | | |
| **1** | **2** | **3** |
| V1 | | | S1 (50% : 0%) | 91,99 | 90,11 | 86,97 | 269,07 | 89,69 | | | |
| S2 (49% : 1%) | 89,75 | 87,57 | 84,33 | 261,64 | 87,21 | | | |
| Pisang Ambon Lumut | | | S3 (47% : 3%) | 82,44 | 86,95 | 80,17 | 249,56 | 83,19 | | | |
| S4 (45% : 5%) | 85,64 | 83,05 | 74,20 | 242,89 | 80,96 | | | |
| **Sub Total** | | | | **349,82** | **347,67** | **325,67** | **1023,16** | **341,05** | | | |
| V2 | | S1 (50% : 0%) | | 81,72 | 86,15 | 85,50 | 253,37 | 84,46 | | | |
| S2 (49% : 1%) | | 86,87 | 83,55 | 81,71 | 252,13 | 84,04 | | | |
| Pisang nangka | | S3 (47% : 3%) | | 82,75 | 81,67 | 81,17 | 245,59 | 81,86 | | | |
| S4 (45% : 5%) | | 82,34 | 79,89 | 75,01 | 237,24 | 79,08 | | | |
|  | |  | | 333,67 | 331,26 | 323,38 | 988,32 | 329,44 | | | |
| **TOTAL** | | | | **683,49** | **678,93** | **649,05** | **2011,47** | **670,49** | | | |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS - JKVS | =  =  =  =  =  =  = | 168584,57  421,61  87,49  50,58  179,77  13,55  90,22 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 87,49 |  |  | |
| Faktor V | 1 | 50,58 | 50,580 | 7,849\* | 4,6 |
| Faktor S | 3 | 179,77 | 59,923 | 9,299 \* | 3,34 |
| Interaksi VS | 3 | 13,55 | 4,517 | 0,701 tn | 3,34 |
| Galat | 14 | 90,22 | 6,444 |  | |
| Total | 23 | 421,61 |  | | |

Kesimpulan:

Berdasarkan tabel ANAVA, varietas pisang dan perbandingan sukrosa dengan dekstrin berpengaruh nyata terhadap kadar gula total serbuk pisang instan, oleh karena itu perlu dilakukan uji lanjut.

**Uji Jarak Berganda Duncan terhadap Kadar Gula Total Serbuk Pisang Instan**

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,732801

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 329,4388 | - | - | a |
| 3,03 | 2,2204 | v2 | 341,0527 | 11,6138\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Uji Lanjut Duncan Faktor S

Standar Kekeliruan (sδ) =  = = 1,036338

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s2 | 160,0427 | - | - | - | a |
| 3,03 | 3,1401 | s4 | 165,0470 | 5,0043\* | - | - | b |
| 3,18 | 3,2956 | s3 | 171,2556 | 11,2130\* | 6,2086\* | - | c |
| 3,27 | 3,3888 | s1 | 174,1462 | 14,1035\* | 9,0992\* | 2,8906\* | d |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Varietas Pisang (V) terhadap Perbandingan Sukrosa dengan Dekstrin (S)**

Interaksi perlakuan (v1) terhadap (s

Standar Kekeliruan (sδ) =  = = 0,732801

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s4 | 80,9640 | - | - | - | a |
| 3,03 | 2,2204 | s3 | 83,1853 | 2,2213\* | - | - | b |
| 3,18 | 2,3303 | s2 | 87,2133 | 6,2493\* | 4,0280\* | - | c |
| 3,27 | 2,3963 | s1 | 89,6900 | 8,7260\* | 6,5047\* | 2,4767\* | d |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s4 | 79,0787 | - | - | - | a |
| 3,03 | 2,2204 | s3 | 81,8617 | 2,7830\* | - | - | b |
| 3,18 | 2,3303 | s2 | 84,0423 | 4,9636\* | 2,1806\* | - | c |
| 3,27 | 2,3963 | s1 | 84,4562 | 5,3775\* | 2,5945\* | 0,4139tn | c |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Perbandingan Sukrosa dengan Dekstrin (S) terhadap Varietas Pisang (V)**

Interaksi perlakuan (s1) terhadap (v)

Standar Kekeliruan (sδ) =  = 1,036338

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 84,4562 | - | - | a |
| 3,03 | 3,1401 | v1 | 89,6900 | 5,2338 \* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s2) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 84,0423 | - | - | a |
| 3,03 | 3,1401 | v1 | 87,2133 | 3,1710 \* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s3) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 81,8617 | - | - | a |
| 3,03 | 3,1401 | v1 | 83,1853 | 1,3237 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s4) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 79,0787 | - | - | a |
| 3,03 | 3,1401 | v1 | 80,9640 | 1,8853 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi Varietas Pisang (V) dan Perbandingan Sukrosa dengan Dekstrin (S)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Varietas Pisang (V) | Perbandingan Sukrosa dengan Dekstrin (S) | | | |
| s1 (50%:0%) | s2 (49%:1%) | s3 (47%:3%) | s4 (45%:5%) |
| V1 pisang ambon lumut | 89,69 B | 87,21 B | 83,19 A | 80,96 A |
| d | c | b | a |
| V2 pisang nangka | 84,46 A | 84,04 A | 81,86 B | 79,08 A |
| c | c | b | a |

**Lampiran 12. Hasil Analisis Bagian Tidak Larut dalam Air Metode Gravimetri**

Data Asli Analisis Kimia terhadap Bagian Tidak Larut dalam Air Serbuk Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Perlakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| V1 | S1 (50% : 0%) | 4,46 | 3,89 | 6,05 | 14,40 | 4,80 |
| S2 (49% : 1%) | 3,51 | 3,25 | 3,68 | 10,43 | 3,48 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 3,47 | 1,86 | 2,91 | 8,23 | 2,74 |
| S4 (45% : 5%) | 3,00 | 1,71 | 2,89 | 7,60 | 2,53 |
| **Sub Total** | | **14,43** | **10,71** | **15,53** | **40,66** | **13,55** |
| V2 | S1 (50% : 0%) | 4,57 | 3,08 | 4,37 | 12,02 | 4,01 |
| S2 (49% : 1%) | 3,80 | 2,36 | 3,34 | 9,50 | 3,17 |
| Pisang nangka | S3 (47% : 3%) | 2,63 | 1,71 | 2,82 | 7,16 | 2,39 |
| S4 (45% : 5%) | 1,87 | 1,61 | 2,48 | 5,96 | 1,99 |
|  |  | **12,87** | **8,76** | **13,01** | **34,63** | **11,54** |
| **TOTAL** | | **27,29** | **19,46** | **28,54** | **75,29** | **25,10** |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS - JKVS | =  =  =  =  =  =  = | 236,19  26,58  6,05  1,51  16,41  0,22  2,40 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 6,05 |  |  | |
| Faktor V | 1 | 1,51 | 1,511 | 8,825\* | 4,6 |
| Faktor S | 3 | 16,41 | 5,469 | 31,937 \* | 3,34 |
| Interaksi VS | 3 | 0,22 | 0,073 | 0,425 tn | 3,34 |
| Galat | 14 | 2,40 | 0,171 |  | |
| Total | 23 | 26,58 |  | | |

Kesimpulan:

Berdasarkan tabel ANAVA, varietas pisang dan perbandingan sukrosa dengan dekstrin berpengaruh nyata terhadap bagian tidak larut dalam air serbuk pisang instan, oleh karena itu perlu dilakukan uji lanjut.

**Uji Jarak Berganda Duncan terhadap Bagian tidak Larut dalam Air Serbuk Pisang Instan**

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,119452

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 11,5447 | - | - | a |
| 3,03 | 0,3619 | v2 | 13,5520 | 2,0073\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Uji Lanjut Duncan Faktor S

Standar Kekeliruan (sδ) =  = = 0,1689306

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s4 | 4,5173 | - | - | - | a |
| 3,03 | 0,5119 | s3 | 5,1317 | 0,6143\* | - | - | b |
| 3,18 | 0,5372 | s2 | 6,6417 | 2,1243\* | 1,5100\* | - | c |
| 3,27 | 0,5524 | s1 | 8,8060 | 4,2887\* | 3,6743\* | 2,1643\* | d |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Varietas Pisang (V) terhadap Perbandingan Sukrosa dengan Dekstrin (S)**

Standar Kekeliruan (sδ) =  = = 0,119452

Interaksi perlakuan (v1) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s4 | 2,5323 | - | - | - | a |
| 3,03 | 0,3619 | s3 | 2,7447 | 0,2123tn | - | - | a |
| 3,18 | 0,3799 | s2 | 3,4750 | 0,9427\* | \* | - | b |
| 3,27 | 0,3906 | s1 | 4,8 | 2,2677\* | 2,0553\* | 1,3250\* | c |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s4 | 1,9850 | - | - | - | a |
| 3,03 | 0,3619 | s3 | 2,387 | 0,4020\* | - | - | b |
| 3,18 | 0,3799 | s2 | 3,1667 | 1,1817\* | 1,7797\* | - | c |
| 3,27 | 0,3906 | s1 | 4,0060 | 2,0210\* | 1,6190\* | 0,8393\* | d |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Perbandingan Sukrosa dengan Dekstrin (S) terhadap Varietas Pisang (V)**

Interaksi perlakuan (s1) terhadap (v)

Standar Kekeliruan (sδ) =  = = 0,1689306

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 4,0060 | - | - | a |
| 3,03 | 0,5119 | v1 | 4,8 | 0,7940\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s2) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 3,1667 | - | - | a |
| 3,03 | 0,5119 | v1 | 3,4750 | 0,3083tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s3) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 2,3870 | - | - | a |
| 3,03 | 0,5119 | v1 | 2,7447 | 0,3577 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s4) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v2 | 1,9850 | - | - | a |
| 3,03 | 0,5119 | v1 | 2,5323 | 0,5473\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi Varietas Pisang (V) dan Perbandingan Sukrosa dengan Dekstrin (S)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Varietas Pisang (V) | Perbandingan Sukrosa dengan Dekstrin (S) | | | |
| s1 (50%:0%) | s2 (49%:1%) | s3 (47%:3%) | s4 (45%:5%) |
| V1 pisang ambon lumut | 4,8 B | 3,48 A | 2,74 A | 2,53 B |
| c | b | a | a |
| V2 pisang nangka | 4,01 A | 3,17 A | 2,39 A | 1,99 A |
| d | c | b | a |

**Lampiran 14. Hasil Uji Organoleptik pada Penelitian Utama**

1. Tabel Data Asli Analisis Organoleptik terhadap WARNA Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 2,75 | 3,00 | 2,8 | 8,55 | 2,85 |
| S2 (49% : 1%) | 2,65 | 3,55 | 2,1 | 8,3 | 2,766667 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 2,95 | 3,35 | 1,95 | 8,25 | 2,75 |
| S4 (45% : 5%) | 3,00 | 3,00 | 2,8 | 8,8 | 2,933333 |
| v2 | S1 (50% : 0%) | 2,75 | 3,45 | 4,05 | 10,25 | 3,416667 |
| S2 (49% : 1%) | 2,90 | 2,85 | 3,9 | 9,65 | 3,216667 |
| Pisang Nangka | S3 (47% : 3%) | 3,65 | 3,10 | 3,1 | 9,85 | 3,283333 |
| S4 (45% : 5%) | 3,00 | 3,45 | 3,1 | 9,5500 | 3,1833 |
| **Total** | | **23,65** | **25,75** | **23,8** | **73,2** | **24,4** |

Tabel Data Transformasi  Uji Organoleptik terhadap WARNA Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 1,7820 | 1,8512 | 1,8031 | 5,4362 | 1,8121 |
| S2 (49% : 1%) | 1,7549 | 1,9987 | 1,5915 | 5,3451 | 1,7817 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 1,8373 | 1,9394 | 1,5480 | 5,3248 | 1,7749 |
| S4 (45% : 5%) | 1,8571 | 1,8419 | 1,7965 | 5,4955 | 1,8318 |
| **Sub Total** | | **7,2313** | **7,6312** | **6,7390** | **21,6016** | **5,3687** |
| v2 | S1 (50% : 0%) | 1,7747 | 1,9691 | 2,0356 | 5,7795 | 1,9265 |
| S2 (49% : 1%) | 1,8149 | 1,8156 | 2,0917 | 5,7222 | 1,9074 |
| Pisang Nangka | S3 (47% : 3%) | 2,0271 | 1,8755 | 1,8847 | 5,7873 | 1,9291 |
| S4 (45% : 5%) | 1,8288 | 1,9321 | 1,8880 | 5,6489 | 1,8830 |
| **Sub Total** | | **7,4455** | **7,5924** | **7,9000** | **22,9379** | **5,7630** |
| **TOTAL** | | **14,6768** | **15,2236** | **14,6391** | **44,5395** | **14,8465** |
| **RATA-RATA** | | **4,8923** | **5,0745** | **4,8797** | **14,8465** | **4,9488** |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS – JKVS | =  =  =  =  =  =  = | 82,66  0,36  0,03  0,07  0,00  0,01  0,25 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 0,03 |  |  | |
| Faktor V | 1 | 0,07 | 0,074 | 4,138 tn | 4,6 |
| Faktor S | 3 | 0,00 | 0,001 | 0,036 tn | 3,34 |
| Interaksi VS | 3 | 0,01 | 0,003 | 0,158 tn | 3,34 |
| Galat | 14 | 0,25 | 0,018 |  | |
| Total | 23 | 0,363 |  | | |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Kesimpulan:

Berdasarkan tabel ANAVA, varietas pisang, perbandingan sukrosa dengan dekstrin, serta interaksi keduanya tidak berpengaruh nyata terhadap warna minuman pisang instan, oleh karena itu tidak perlu dilakukan uji lanjut.

2. Tabel Data Asli Analisis Organoleptik terhadap RASA Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 3,25 | 3,30 | 3,10 | 9,65 | 3,22 |
| S2 (49% : 1%) | 3,35 | 3,35 | 3,20 | 9,90 | 3,30 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 3,15 | 3,05 | 3,00 | 9,20 | 3,07 |
| S4 (45% : 5%) | 3,50 | 3,55 | 2,80 | 9,85 | 3,28 |
| v2 | S1 (50% : 0%) | 3,05 | 2,80 | 3,70 | 9,55 | 3,18 |
| S2 (49% : 1%) | 3,25 | 3,05 | 3,25 | 9,55 | 3,18 |
| Pisang Nangka | S3 (47% : 3%) | 2,80 | 3,15 | 2,95 | 8,90 | 2,97 |
| S4 (45% : 5%) | 3,45 | 3,50 | 3,15 | 10,10 | 3,37 |
| **Total** | | **25,80** | **25,75** | **25,15** | **76,70** | **25,57** |

Tabel Data Transformasi  Uji Organoleptik terhadap RASA Minuman Pisang Instan

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | | S1 (50% : 0%) | 1,9243 | 1,9196 | 1,8762 | 5,7201 | 1,9067 |
| S2 (49% : 1%) | 1,9394 | 1,9394 | 1,9045 | 5,7833 | 1,9278 |
| Pisang Ambon Lumut | | S3 (47% : 3%) | 1,8953 | 1,8663 | 1,7661 | 5,5277 | 1,8426 |
| S4 (45% : 5%) | 1,9757 | 1,9835 | 1,7779 | 5,7371 | 1,9124 |
| **Sub Total** | | | **7,7346** | **7,7089** | **7,3247** | **22,7682** | **7,5894** |
| v2 | S1 (50% : 0%) | | 1,8564 | 1,7878 | 2,0283 | 5,6726 | 1,8909 |
| S2 (49% : 1%) | | 1,9151 | 1,8597 | 1,9157 | 5,6904 | 1,8968 |
| Pisang Nangka | S3 (47% : 3%) | | 1,7998 | 1,8828 | 1,8360 | 5,5185 | 1,8395 |
| S4 (45% : 5%) | | 1,9750 | 1,9889 | 1,8920 | 5,8559 | 1,9520 |
| **Sub Total** | | | **7,5462** | **7,5191** | **7,6720** | **22,7373** | **7,5791** |
| **TOTAL** | | | **15,2808** | **15,2280** | **14,9967** | **45,5056** | **15,1685** |
| **RATA-RATA** | | | **5,0936** | **5,0760** | **4,9989** | **15,1685** | **5,0562** |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS – JKVS | =  =  =  =  =  =  = | 86,28152  0,112073  0,005709  3,9E-05  0,027612  0,004139  0,074574 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 0,01 |  |  | |
| Faktor V | 1 | 0,00 | 4E-05 | 0,007 tn | 4,6 |
| Faktor S | 3 | 0,03 | 0,0092 | 1,728 tn | 3,34 |
| Interaksi VS | 3 | 0,00 | 0,00138 | 0,259 tn | 3,34 |
| Galat | 14 | 0,07 | 0,00533 |  | |
| Total | 23 | 0,11 |  | | |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Kesimpulan:

Berdasarkan tabel ANAVA, varietas pisang, perbandingan sukrosa dengan dekstrin, serta interaksi keduanya tidak berpengaruh nyata terhadap rasa minuman pisang instan, oleh karena itu tidak perlu dilakukan uji lanjut.

3. Tabel Data Asli Analisis Organoleptik terhadap AROMA Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 3,05 | 3,35 | 3,35 | 9,75 | 3,25 |
| S2 (49% : 1%) | 2,90 | 3,50 | 3,10 | 9,50 | 3,17 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 3,05 | 3,05 | 3,15 | 9,25 | 3,08 |
| S4 (45% : 5%) | 3,40 | 3,20 | 3,45 | 10,05 | 3,35 |
| v2 | S1 (50% : 0%) | 3,20 | 3,20 | 3,35 | 9,75 | 3,25 |
| S2 (49% : 1%) | 3,05 | 3,35 | 3,35 | 9,75 | 3,25 |
| Pisang Nangka | S3 (47% : 3%) | 3,10 | 3,00 | 3,25 | 9,35 | 3,12 |
| S4 (45% : 5%) | 3,30 | 3,40 | 3,50 | 10,20 | 3,40 |
| **Total** | | **25,05** | **26,05** | **26,50** | **77,60** | **25,87** |

Tabel Data Transformasi  Uji Organoleptik terhadap AROMA Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 1,8722 | 1,9447 | 1,9500 | 5,7669 | 1,9223 |
| S2 (49% : 1%) | 1,8307 | 1,9941 | 1,8854 | 5,7102 | 1,9034 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 1,8702 | 1,8683 | 1,8926 | 5,6311 | 1,8770 |
| S4 (45% : 5%) | 1,9644 | 1,9118 | 1,9763 | 5,8525 | 1,9508 |
| **Sub Total** | | **7,5376** | **7,7189** | **7,7043** | **22,9607** | **7,6536** |
| v2 | S1 (50% : 0%) | 1,9098 | 1,9150 | 1,9533 | 5,7781 | 1,9260 |
| S2 (49% : 1%) | 1,8716 | 1,9493 | 1,9453 | 5,7662 | 1,9221 |
| Pisang Nangka | S3 (47% : 3%) | 1,8781 | 1,8610 | 1,9262 | 5,6654 | 1,8885 |
| S4 (45% : 5%) | 1,9381 | 1,9638 | 1,9895 | 5,8914 | 1,9638 |
| **Sub Total** | | **7,5977** | **7,6892** | **7,8143** | **23,1012** | **7,7004** |
| **TOTAL** | | **15,1352** | **15,4081** | **15,5186** | **46,0619** | **15,3540** |
| **RATA-RATA** | | **5,0451** | **5,1360** | **5,1729** | **15,3540** | **5,1180** |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS – JKVS | =  =  =  =  =  =  = | 88,40  0,05  0,01  0,00  0,02  0,00  0,02 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 0,01 |  |  | |
| Faktor V | 1 | 0,00 | 0,001 | 0,600 tn | 4,6 |
| Faktor S | 3 | 0,02 | 0,006 | 4,161 \* | 3,34 |
| Interaksi VS | 3 | 0,00 | 0,000 | 0,042 tn | 3,34 |
| Galat | 14 | 0,02 | 0,001 |  | |
| Total | 23 | 0,047 |  | | |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Kesimpulan:

Berdasarkan tabel ANAVA, perbandingan sukrosa dengan dekstrin berpengaruh terhadap aroma minuman pisang instan, sedangkan varietas pisang serta interaksi keduanya tidak berpengaruh nyata terhadap aroma minuman pisang instan, oleh karena itu perlu dilakukan uji lanjut.

**Uji Jarak Berganda Duncan terhadap AROMA Minuman Pisang Instan**

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,01068245

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 7,6536 | - | - | a |
| 3,03 | 0,0324 | v2 | 7,7004 | 0,0468\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Uji Lanjut Duncan Faktor S

Standar Kekeliruan (sδ) =  = = 0,01510727

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s3 | 3,7655 | - | - | - | a |
| 3,03 | 0,0458 | s2 | 3,8255 | 0,06\* | - | - | a |
| 3,18 | 0,0480 | s1 | 3,8483 | 0,0828\* | 0,0229tn | - | b |
| 3,27 | 0,0494 | s4 | 3,9147 | 0,1492\* | 0,0892\* | 0,0663\* | c |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Varietas Pisang (V) terhadap AROMA Minuman Pisang Instan**

Standar Kekeliruan (sδ) =  = = 0,01068245

Interaksi perlakuan (v1) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s3 | 1,8770 | - | - | - | a |
| 3,03 | 0,0324 | s2 | 1,9034 | 0,0263tn | - | - | ab |
| 3,18 | 0,034 | s1 | 1,9223 | 0,0453\* | 0,0189tn | - | bc |
| 3,27 | 0,0349 | s4 | 1,9508 | 0,0738\* | 0,0475\* | 0,0285tn | c |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s3 | 1,8885 | - | - | - | a |
| 3,03 | 0,0324 | s2 | 1,9221 | 0,0336\* | - | - | b |
| 3,18 | 0,034 | s1 | 1,9260 | 0,0376\* | 0,004tn | - | b |
| 3,27 | 0,0349 | s4 | 1,9638 | 0,0754\* | 0,0417\* | 0,0378\* | c |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Perbandingan Sukrosa dengan Dekstrin (S) terhadap AROMA Minuman Pisang Instan**

Interaksi perlakuan (s1) terhadap (v)

Standar Kekeliruan (sδ) =  = = 0,01510727

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,9223 | - | - | a |
| 3,03 | 0,0458 | v2 | 1,9260 | 0,0037tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s2) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,9034 | - | - | a |
| 3,03 | 0,0458 | v2 | 1.9221 | 0,0187tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s3) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,877 | - | - | a |
| 3,03 | 0,0458 | v2 | 1,8885 | 0,0114 tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s4) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,9508 | - | - | a |
| 3,03 | 0,0458 | v2 | 1,9638 | 0,013\* | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi Varietas Pisang (V) dan Perbandingan Sukrosa dengan Dekstrin (S)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Varietas Pisang (V) | Perbandingan Sukrosa dengan Dekstrin (S) | | | |
| s1 (50%:0%) | s2 (49%:1%) | s3 (47%:3%) | s4 (45%:5%) |
| V1 pisang ambon lumut | 3,25 A | 3,17 A | 3,08 A | 3,35 A |
| bc | ab | A | c |
| V2 pisang nangka | 3,25 A | 3,25 A | 3,12 A | 3,40 A |
| b | b | A | c |

4. Tabel Data Asli Analisis Organoleptik terhadap KEJERNIHAN Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 3,05 | 2,75 | 2,75 | 8,55 | 2,85 |
| S2 (49% : 1%) | 2,85 | 3,15 | 1,90 | 7,90 | 2,63 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 3,15 | 2,75 | 1,85 | 7,75 | 2,58 |
| S4 (45% : 5%) | 3,20 | 3,00 | 2,50 | 8,70 | 2,90 |
| V2(Pisang Nangka) | S1 (50% : 0%) | 3,10 | 3,60 | 4,25 | 10,95 | 3,65 |
| S2 (49% : 1%) | 2,75 | 3,00 | 3,60 | 9,35 | 3,12 |
| S3 (47% : 3%) | 3,35 | 3,25 | 3,15 | 9,75 | 3,25 |
| S4 (45% : 5%) | 2,85 | 3,35 | 3,10 | 9,30 | 3,10 |
| **Total** | | **24,30** | **24,85** | **23,10** | **72,25** | **24,08** |

Tabel Data Transformasi  Uji Organoleptik terhadap KEJERNIHAN Minuman Pisang Instan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Varietas Pisang (V)** | **Konsentrasi Sukrosa dan Dekstrin (S)** | **Kelompok Ulangan** | | | **Total Pelakuan** | **Rata-rata** |
| **1** | **2** | **3** |
| v1 | S1 (50% : 0%) | 1,8722 | 1,7734 | 1,7853 | 5,4308 | 1,8103 |
| S2 (49% : 1%) | 1,8109 | 1,8854 | 1,5335 | 5,2298 | 1,7433 |
| Pisang Ambon Lumut | S3 (47% : 3%) | 1,8821 | 1,7800 | 1,5210 | 5,1830 | 1,7277 |
| S4 (45% : 5%) | 1,9065 | 1,8406 | 1,5210 | 5,2680 | 1,7560 |
|  |  | **7,4716** | **7,2792** | **6,3608** | **21,1117** | **7,0372** |
| v2 | S1 (50% : 0%) | 1,8755 | 2,0047 | 2,1713 | 6,0515 | 2,0172 |
| S2 (49% : 1%) | 1,7820 | 1,8524 | 2,0113 | 5,6457 | 1,8819 |
| Pisang Nangka | S3 (47% : 3%) | 1,9480 | 1,9209 | 1,9006 | 5,7695 | 1,9232 |
| S4 (45% : 5%) | 1,8156 | 1,9474 | 1,8880 | 5,6510 | 1,8837 |
| **Sub Total** | | **7,4211** | **7,7254** | **7,9712** | **23,1177** | **7,7059** |
| **TOTAL** | | **14,8927** | **15,0047** | **14,3320** | **44,2294** | **14,7431** |
| **RATA-RATA** | | **4,9642** | **5,0016** | **4,7773** | **14,7431** | **4,9144** |

Perhitungan ANAVA :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Faktor Koreksi  JK Total  JK Kelompok  JK Faktor V  JK Faktor S  Jk Faktor VS  JK Galat | =  =  =  =  =  =  = | (Total Jenderal)^2/v x s x r  Σ(Total Pengamatan)^2-FK  Σ(Total kelompok)^2/v x r –FK  Σ(Total taraf varietas pisang)^2/s x r -FK  Σ(Total taraf perb.sukrosa&dekstrin)^2/s x r –FK  Σ(Total Interaksi)^2/r –FK – JKV – JKS  JKT- JKK – JKV – JKS - JKVS | =  =  =  =  =  =  = | 82,24545  0,435535  0,015314  0,136043  0,036414  0,019955  0,227808 |

Tabel ANAVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sumber Variasi** | **DB** | **JK** | **KT** | **F Hitung** | **F Tabel 5%** |
| Kelompok | 2 | 0,02 |  |  | |
| Faktor V | 1 | 0,14 | 0,1360433 | 8,361 \* | 4,6 |
| Faktor S | 3 | 0,04 | 0,012138 | 0,746 tn | 3,34 |
| Interaksi VS | 3 | 0,02 | 0,0066517 | 0,409 tn | 3,34 |
| Galat | 14 | 0,23 | 0,016272 |  | |
| Total | 23 | 0,44 |  | | |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Kesimpulan:

Berdasarkan tabel ANAVA, varietas pisang berpengaruh terhadap kejernihan minuman pisang instan, sedangkan perbandingan sukrosa dengan dekstrin serta interaksi keduanya tidak berpengaruh nyata terhadap kejernihan minuman pisang instan, oleh karena itu perlu dilakukan uji lanjut.

**Uji Jarak Berganda Duncan terhadap KEJERNIHAN Minuman Pisang Instan**

Uji Lanjut Duncan Faktor V

Standar Kekeliruan (sδ) =  = = 0,0368239

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 7,0372 | - | - | a |
| 3,03 | 0,1116 | v2 | 7,7059 | 0,6687\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Uji Lanjut Duncan Faktor S

Standar Kekeliruan (sδ) =  = = 0,0520769

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s2 | 3,6252 | - | - | - | a |
| 3,03 | 0,1578 | s3 | 3,6397 | 0,0145tn | - | - | a |
| 3,18 | 0,1656 | s3 | 3,6508 | 0,0257 tn | 0,0111tn | - | a |
| 3,27 | 0,1703 | s1 | 3,8274 | 0,2023\* | 0,1878\* | 0,1766\* | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Varietas Pisang (V) terhadap KEJERNIHAN Minuman Pisang Instan**

Interaksi perlakuan (v1) terhadap (s)

Standar Kekeliruan (sδ) =  = = 0,0368239

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s3 | 1,7277 | - | - | - | a |
| 3,03 | 0,1116 | s2 | 1,7433 | 0,0156tn | - | - | a |
| 3,18 | 0,1171 | s4 | 1,7560 | 0,0283 tn | 0,0127 tn | - | a |
| 3,27 | 0,1204 | s1 | 1,8103 | 0,0826tn | 0,0670 tn | 0,0543tn | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (v2) terhadap (s)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 | 3 |
| - | - | s2 | 1,8819 | - | - | - | a |
| 3,03 | 0,1116 | s4 | 1,8837 | 0,0018 tn | - | - | a |
| 3,18 | 0,1171 | s3 | 1,9232 | 0,0413 tn | 0,0395tn | - | ab |
| 3,27 | 0,1204 | s1 | 2,0172 | 0,1353\* | 0,1335\* | 0,0940 tn | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

**Interaksi antara Perbandingan Sukrosa dengan Dekstrin (S) terhadap KEJERNIHAN Minuman Pisang Instan**

Interaksi perlakuan (s1) terhadap (v)

Standar Kekeliruan (sδ) =  = = 0,0520769

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,8103 | - | - | a |
| 3,03 | 0,1578 | v2 | 2,0172 | 0,2069\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s2) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,7433 | - | - | a |
| 3,03 | 0,1578 | v2 | 1,8819 | 0,1386tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s3) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,7277 | - | - | a |
| 3,03 | 0,1578 | v2 | 1,9232 | 0,1955\* | - | b |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi perlakuan (s4) terhadap (v)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SSR 5% | LSR 5% | Rata-rata Perlakuan | | Perlakuan | | Taraf Nyata 5% |
| Kode | Rata-rata | 1 | 2 |
| - | - | v1 | 1,7560 | - | - | a |
| 3,03 | 0,1578 | v2 | 1,8837 | 0,1277tn | - | a |

Keterangan: tn = tidak berpengaruh nyata

\* = berpengaruh nyata

Interaksi Varietas Pisang (V) dan Perbandingan Sukrosa dengan Dekstrin (S)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Varietas Pisang (V) | Perbandingan Sukrosa dengan Dekstrin (S) | | | |
| s1 (50%:0%) | s2 (49%:1%) | s3 (47%:3%) | s4 (45%:5%) |
| V1 pisang ambon lumut | 2,85 A | 2,63 A | 2,58 A | 2,9 A |
| bc | ab | a | ab |
| V2 pisang nangka | 3,65 B | 3,12 A | 3,25 B | 3,1 A |
| b | a | ab | a |