

## DAFTAR PUSTAKA

- Adikurnia, M. Arizal, 2018. 5 Mitos Madu yang Beredar di Masyarakat.[Internet]. Tersedia pada : <https://travel.kompas.com/read/2018/10/24/5-mitos-madu-yang-beredar-di-masyarakat/>. [30 Juni 2021].
- Alimentarius, C. 2001. Codex Standards of Sugars (honey).013 Composition and HMF Level in Sicillian Monofloral Honey. *Food Chemistry* 85 (3) : 305-313.
- Almayanthy, D. 1998. Kualitas madu randu pada suhu penyimpanan yang berbeda. [Skripsi]. Fakultas Peternakan, IPB. Bogor.
- Apriani, D., Gusnedi, Yenni D. 2013. Studi Tentang Nilai Viskositas Madu Hutan dari Beberapa Daerah di Sumatra Barat untuk Mengetahui Kualitas Madu. *Pillar of Physics*. (2), 91-98.
- Koesprimadisari, Audi Rizki. Arrisujaya, Dian. Syafdaningsih, Resty. 2016. Uji kandungan hidroksimetilfurfural (HMF) sebagai parameter kualitas madu. *Jurnal Sains Natural* 6 (2) : 44-51.
- Azeredo, L. D., Azeredo, M. A. ., De Souza, S. R., & Dutra, V. M. L. (2003). Protein contents and physicochemical properties in honey samples of *Apis mellifera* of different floral origins. *Food Chemistry* 80(2), 249–254.
- [BSN] Badan Standarisasi Nasional. 1992. SNI 01.2891-1992 tentang Cara Uji Makanan dan Minuman. Badan Standarisasi Nasional, Jakarta.
- [BSN] Badan Standarisasi Nasional. 2013. SNI 01.3545-2013. Madu. BSN, Jakarta.
- [BSN] Badan Standarisasi Nasional. 2018. SNI 8664-2018 tentang Madu. Badan Standarisasi Nasional, Jakarta.
- Bogdanov. S.K. Ruoff. and L. Persano Oddo, 2004, Physico-chemical methods for the characterisation of unifloral honeys, A review article *in. Apidologie* 35:4.
- Bogdanov S, Jurendic T, Sieber R, Gallmann P. Honey as Nutrient and Food Function Food: A Review *in. J Am Coll Nutr*. 2011;27(6):677–689.
- Cánovas, F.; De la Rúa, P.; Serrano, J.; Galián, J. (2007). "Geographical patterns

of mitochondrial DNA variation in *Apis mellifera iberiensis* (Hymenoptera: Apidae)". *Journal of Zoological Systematics and Evolutionary Research* (Wiley) 46 (1): 24–30.

- Cantarelli, M. A., Pellerano, R. G., Marchevsky, E. J. dan Camina, J. M. 2008. Quality of honey from Argentina: study of Chemical Composition and Trace Elements. *Journal of Argentina Chemical Society* 96: 33 - 41.
- Chi, W., C. B. Zhang, Y. H. Lao, L. Y. Guo. 1998. Investigation of the Restriction on The Formation of HMF. *J.Pharm.* 14(1): 101-104.
- Eleazu, C.O., Iroaganachi, M.A., Eleazu, K.C. dan Okoronkwo, J.O. (2013). Determination of the physicochemical composition microbial quality and free radical scavenging activities of some commercially sold honey samples in Aba Nigeria. The effect of varying colours. *International Journal of Biomedical Research* 4(1): 32–41
- Hammad, S. 2014. *Kedokteran Nabi*. Solo: Aqwamedika.
- Ismail, A.R, 2019. Abu Ken : Perbedaan Madu Hutan Dan Madu Ternak. [Internet]. Tersedia pada: <https://faktual.net/abu-ken-perbedaan-madu-hutan-dan-madu-ternak/>. [17 Juni 2021].
- Karnia, Iis., Hamidah, Siti., Abdul, Gusti R.T. 2019. Pengaruh masa simpan madu kelulut (*Trigona SP*) terhadap kadar gula pereduksi dan keasaman. *Jurnal Sylva Scientiae* 2 (6) : 1095-1096.
- Korošec, M., U. Kropf, T. Golob, J. Bertoncelj. 2016. Dalam Jurnal Adityarini, Devi., Agung Widodo Suedy, Sri., Darmanti, Sri, 2020. Kualitas madu lokal berdasarkan kadar air, gula total dan keasaman dari Kabupaten Magelang. *Buletin Anatomi dan Fisiologi* 5 (1) : 18-24.
- Korošec, M., R. Vidrih, J. Bertoncelj. 2017. Dalam Jurnal Adityarini, Devi., Agung Widodo Suedy, Sri., Darmanti, Sri, 2020. Kualitas madu lokal berdasarkan kadar air, gula total dan keasaman dari Kabupaten Magelang. *Buletin Anatomi dan Fisiologi* 5 (1) : 18-24.
- Kowalski, S., M. Lukasiewicz, A. DudaChodak, G. Ziec. 2013. 5- Hydroxymethyl-2-Furfural HeatInduced Formation Occurance in Food and Biotransfromation: a Review. *Polish Journal of Food and Nutrition Science* 63 (4): 207- 225.
- Nathania, Vidya. 2020. 7 Merek madu yang bagus untuk kesehatan ini terbukti ampuh. [Internet]. Tersedia pada: <https://www.popbela.com>. [06 Apr 2021].
- [Permenhut] Peraturan Menteri Kehutanan. Nomor. P.35/Menhut-II/2007 tentang Hasil. Hutan Bukan Kayu. Jakarta.

- Putri, Nina Hertiwi. 2019 : Manfaat madu untuk kesehatan anda sekeluarga. [Internet]. Tersedia pada: <https://www.sehatq.com> [08 Maret 2021].
- Rosita. 2007. *Berkat Madu Sehat, Cantik, dan Penuh Vitalitas*. Qanita. Bandung.
- Safira, Rizka. 2019. Korelasi perbedaan tinggi headspace kemasan dan suhu penyimpanan terhadap karakteristik madu hutan selama penyimpanan [skripsi]. Fakultas Teknik, Universitas Pasundan. Bandung.
- Sucipta, I Nyoman. Suriasih, Ketut. Kencana, Pande Ketut Diah. 2017. *Pengemasan pangan kajian pengemasan yang aman, nyaman, efektif dan efisien*. Udayana University Press. Denpasar.
- Suhaela, Alfian Noor, Ahyar Ahmad, 2016. Pengaruh pemanasan dan lama penyimpanan terhadap kadar 5-(Hidroksimetil) furan-2-karbaldehid (HMF) pada madu asal Mallawa [skripsi]. Fakultas MIPA, Universitas Hasanuddin. Makasar.
- Van Putten, Robert-Jan; van der Waal, Jan C.; de Jong, Ed; Rasrendra, Carolus B.; Heeres, Hero J.; de Vries, Johannes G. (2013). "Hydroxymethylfurfural, A Versatile Platform Chemical Made from Renewable Resources". *Chemical Reviews* 113 (3) : 1499–1597.
- White, J. W. 1994. The Role of HMF and Diastase Assays in Honey Quality Evaluation. *Bee World* 75(3) : 104- 117.
- Warisno. 1996. *Budi Daya Lebah Madu*. Adicitia. Yogyakarta.
- Winarni, Heni. Syuhriatin, Basri, Hasan. Edy Swandayani, Rosalina. 2019. Uji mutu madu yang beredar di kota Mataram Provinsi Nusa Tenggara Barat berdasarkan aktivitas enzim diastase. *Lombok Journal of Science (LJS)* 1 (1) : 24-28.
- Winarno, F. G. 1982. *Madu : Teknologi, Khasiat dan Analisa*. Ghalia Indonesia. Jakarta.
- Wulandari, Astri Octavia. Purwadi. Jaya, Firman. 2017. Penambahan madu bunga kopi (*Coffea* sp.) terhadap kualitas kefir ditinjau dari karakteristik mikrobiologi. *Jurnal Ilmu dan Teknologi Hasil Ternak* 12 (2) : 83-88.
- Wulandari, Devyana Diah. 2017. Kualitas madu (keasaman, kadar air, dan ladar gula pereduksi) berdasarkan perbedaan suhu penyimpanan. *Jurnal Kimia Riset* 2 (1) : 16-22.

## **LAMPIRAN**

## Lampiran 1. Hasil analisis madu Cinumpang segar

Kode Sampel O, Kemasan Botol kaca



### RESULT OF ANALYSIS

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074491

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simplo	Duplo		
1	Koramentol	mcg / kg	Not detected	Not detected	0.1	18-12-5/MU/SMM-SIG (LCMSMS)
2	Cd	mg / kg	Not detected	Not detected	0.00012	18-13-14/MU/SMM-SIG (ICP MS)
3	Hg	mg / kg	Not detected	Not detected	0.003	18-13-14/MU/SMM-SIG (ICP MS)
4	As	mg / kg	Not detected	Not detected	0.00015	18-13-14/MU/SMM-SIG (ICP MS)
5	Pb	mg / kg	Not detected	Not detected	0.00001	18-13-14/MU/SMM-SIG (ICP MS)
6	Kadar Abu	%	0.23	0.23	-	SNI 3545 : 2013 point 6.10
7	Pedatan tidak larut air	%	0.08	0.08	-	SNI 3545 : 2013 point 6.9
8	Keasaman	mL NaOH 1N / Kg	4.81	4.76	-	SNI 3545-2013 Appendix F
9	Kadar Air	%	17.12	17.08	-	AOAC 969.38 Point B (Moisture In Honey)
10	Sukrosa	%	1.82	1.92	-	18-8-8/MU/SMM-SIG (Luff-Schoor)

**Lanjutan.** Hasil analisis madu Cinumpang segar  
Kode sampel O, botol kaca



**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074491

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simple	Duplo		
11	Gula pereduksi sebagai glukosa	%	78.76	78.02	-	18-S/MLU/SMM-SIG (Luff-Schoorl)
12	Hidroksi Metil Furfural	mg / kg	1.83	1.88	-	AOAC 980.23 (Spektrofotometri)
13	Enzimdiastase	DN	9.53	9.52	-	AOAC 958.09 (Spektrofotometri)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech



Dwi Yulianto Laksono, S.Si  
GM Laboratorium

**Lampiran 2.** Hasil analisis madu Cinumpang suhu <math>4^{\circ}</math> C  
Kode sampel A, kemasan botol PET



**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074492

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simplo	Duplo		
1	Hidroksi Metil Furfural	mg / kg	31.91	31.30	-	AOAC 980.23 (Spektrofotometri)
2	Gula pereduksi sebagai glukosa	%	73.40	73.89	-	18-B-SMU/SMA-SIG (Luff-Schoorl)
3	Kadar Air	%	17.48	17.52	-	AOAC 969.38 Point B (Moisture in Honey)
4	Enzimdiastase	DN	10.33	10.33	-	AOAC 958.09 (Spektrofotometri)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech



Dwi Yulianto Laksono, S.Si  
GM Laboratorium

**Lampiran 3.** Hasil analisis madu Cinumpang suhu 25<sup>0</sup> C  
Kode sampel B, kemasan botol PET

**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074493

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simplo	Duplo		
1	Kadar Abu	%	0.14	0.13	-	SNI 3545 : 2013 point 6.10
2	Padatan tidak larut air	%	0.11	0.11	-	SNI 3545 : 2013 point 6.9
3	Kesamaan	mL NaOH 1N / Kg	6.89	6.60	-	SNI 3545-2013 Appendix F
4	Kadar Air	%	17.12	17.08	-	AOAC 969.38 Point B (Moisture in Honey)
5	Sukrosa	%	Not detected	Not detected	0.28	18-B-8/MU/SMM-SIG (Luft-Schoorl)
6	Gula pereduksi sebagai glukosa	%	75.00	75.66	-	18-B-8/MU/SMM-SIG (Luft-Schoorl)
7	Hidroksi Metil Furfural	mg / kg	31.85	31.17	-	AOAC 980.23 (Spektrofotometry)
8	Enzimdiastase	DN	10.65	10.64	-	AOAC 958.09 (Spektrofotometry)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech




Dwi Yulianto Laksono, S.Si  
GM Laboratorium



**Lampiran 4.** Hasil analisis madu Cinumpang suhu 55<sup>0</sup> C  
Kode sampel C, kemasan botol PET



**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074494

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simplo	Duplo		
1	Hidroksi Metil Furfural	mg / kg	84.38	83.47	-	AOAC 980.23 (Spektrofotometri)
2	Gula pereduksi sebagai glukosa	%	75.89	76.78	-	18-B-8MU/SMM-SIG (Luff-Schoorl)
3	Enzimdiastase	DN	2.30	2.30	-	AOAC 958.09 (Spektrofotometri)
4	Kadar Air	%	17.12	17.04	-	AOAC 969.38 Point B (Moisture In Honey)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech



Dwi Yulianto Laksono, S.Si  
GM Laboratorium

**Lampiran 5.** Hasil analisis madu Cinumpang suhu <4<sup>0</sup> C  
Kode sampel D, kemasan botol kaca



**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074495

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simple	Duplo		
1	Hidroksi Metil Furfural	mg / kg	30.53	29.53	-	AOAC 980.23 (Spektrofotometry)
2	Gula pereduksi sebagai glukosa	%	75.16	76.74	-	18-B-8MUI/SMM-SIG (Luff-Schoorl)
3	Enzimdiastase	DN	10.97	10.96	-	AOAC 958.09 (Spektrofotometry)
4	Kadar Air	%	17.32	17.28	-	AOAC 969.38 Point B (Moisture in Honey)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech



Dwi Yulianto Laksono, S.Si  
GM Laboratorium

**Lampiran 6.** Hasil analisis madu Cinumpang suhu 25<sup>0</sup> C  
Kode sampel E, kemasan botol kaca

**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074496

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simple	Duplo		
1	Hidroksi Metil Furfural	mg / kg	26.27	25.84	-	AOAC 980.23 (Spektrofotometry)
2	Gula pereduksi sebagai glukosa	%	76.15	76.10	-	18-B-8/MI/SMM-SIG (Luff-Schoorl)
3	Enzimdiastase	DN	10.37	10.37	-	AOAC 958.09 (Spektrofotometry)
4	Kadar Air	%	17.48	17.48	-	AOAC 969.38 Point B (Moisture in Honey)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech



Dwi Yulianto Laksono, S.Si  
GM Laboratorium

**Lampiran 7.** Hasil analisis madu Cinumpang suhu 55<sup>0</sup> C  
Kode sampel F, kemasan botol kaca



**RESULT OF ANALYSIS**

Laporan Hasil Pengujian : SIG.LHP.VI.2021.074497

No.	Parameter	Unit	Result		Limit Of Detection	Method
			Simplo	Duplo		
1	Hidroksi Metil Furfural	mg / kg	72.05	72.56	-	AOAC 980.23 (Spektrofotometri)
2	Enzimdiastase	DN	2.23	2.23	-	AOAC 958.09 (Spektrofotometri)
3	Gula pereduksi sebagai glukosa	%	73.80	73.87	-	18-8-8MU/SMM-SIG (Luff-Schoorl)
4	Kadar Air	%	17.56	17.52	-	AOAC 969.38 Point B (Moisture In Honey)

Bogor, 17 Juni 2021  
PT. Saraswati Indo Genetech



Dwi Yulianto Laksono, S.Si  
GM Laboratorium

**Lampiran 8.** Perhitungan analisis sidik ragam (Anova) dan uji lanjut enzim diastase

**Descriptive Statistics**

Dependent Variable: Aktivitas enzim diastase (DN)

Faktor A Jenis Kemasan	Faktor B Suhu Penyimpanan	Mean	Std. Error	N
Botol PET	Suhu 4C	10.330	.003	2
	Suhu 25C	10.645	.003	2
	Suhu 55C	2.300	.003	2
Botol Kaca	Suhu 4C	10.965	.003	2
	Suhu 25C	10.370	.003	2
	Suhu 55C	2.230	.003	2

**Tests of Between-Subjects Effects**

Dependent Variable: Aktivitas Enzim Diastase

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	184.783 <sup>a</sup>	5	36.957	2217400.400	<,001
Intercept	731.329	1	731.329	43879712.000	<,001
A	.028	1	.028	1682.000	<,001
B	184.300	2	92.150	5528988.500	<,001
A * B	.456	2	.228	13671.500	<,001
Error	1.000E-4	6	1.667E-5		
Total	916.112	12			
Corrected Total	184.783	11			

a. R Squared = 1.000 (Adjusted R Squared = 1.000)

**Aktivitas Enzim Diastase**

Duncan<sup>a,b</sup>

Faktor A Jenis Kemasan	N	Subset		
		1	2	3
A1	6		7.7583	
A2	6			7.8550
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1.111E-5.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = 0,05.

### Aktivitas Enzim Diastase

Duncan<sup>a,b</sup>

Faktor B Suhu Penyimpanan	N	Subset		
		1	2	3
Suhu 55C	4	2.2650		
Suhu 25C	4		10.5075	
Suhu 4C	4			10.6475
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 1.667E-5.

a. Uses Harmonic Mean Sample Size = 4.000.

b. Alpha = 0,05.

### Aktivitas Enzim Diastase

Duncan<sup>a,b</sup>

Interaksi Faktor A dan Faktor B	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
Duncan <sup>a</sup> A2B3	2	2.2300					
A1B3	2		2.3000				
A1B1	2			10.3300			
A2B2	2				10.3700		
A1B2	2					10.6450	
A2B1	2						10.9650
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

**Lampiran 9.** Perhitungan analisis sidik ragam (Anova) dan uji lanjut (SPSS)  
*hidroksimetilfurfural (HMF)*

**Descriptive Statistics**

Dependent Variable: HMF

Faktor A Jenis Kemasan	Faktor B Suhu Penyimpanan	Mean	Std. Error	N
Botol PET	Suhu 4C	31.605	.360	2
	Suhu 25C	31.510	.360	2
	Suhu 55C	83.925	.360	2
Botol Kaca	Suhu 4C	30.030	.360	2
	Suhu 25C	26.055	.360	2
	Suhu 55C	72.305	.360	2

**Tests of Between-Subjects Effects**

Dependent Variable: HMF

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6400.449 <sup>a</sup>	5	1280.090	4943.068	<,001
Intercept	25287.228	1	25287.228	97646.653	<,001
A	115.941	1	115.941	447.706	<,001
B	6233.187	2	3116.594	12034.729	<,001
A * B	51.321	2	25.661	99.088	<,001
Error	1.554	6	.259		
Total	31689.231	12			
Corrected Total	6402.003	11			

a. R Squared = 1.000 (Adjusted R Squared = 1.000)

**HMF**

Duncan<sup>a,b</sup>

Faktor Jenis Kemasan (A)	N	Subset		
		1	2	3
A2	6		42.7967	
A1	6			49.0133
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .173.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = 0,05.

### HMF

Duncan<sup>a,b</sup>

Faktor Suhu Penyimpanan		Subset		
(B)	N	1	2	3
Suhu 25C	4	28.7825		
Suhu 4C	4		30.8175	
Suhu 55C	4			78.1150
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .259.

a. Uses Harmonic Mean Sample Size = 4.000.

b. Alpha = 0,05.

### HMF

Duncan<sup>a,b</sup>

Interaksi		Subset for alpha = 0.05				
Faktor A dan Faktor B	N	1	2	3	4	5
Duncan <sup>a</sup> A2B2	2	26.0550				
A2B1	2		30.0300			
A1B2	2			31.5100		
A1B1	2			31.6050		
A2B3	2				72.3050	
A1B3	2					83.9250
Sig.		1.000	1.000	.858	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.



**Lampiran 10.** Perhitungan analisis sidik ragam (Anova) dan uji lanjut (SPSS)  
kadar air

**Descriptive Statistics**

Dependent Variable: Kadar Air

Faktor A Jenis Kemasan	Faktor B Suhu Penyimpanan	Mean	Std. Error	N
Botol PET	Suhu 4C	17.500	.023	2
	Suhu 25C	17.100	.023	2
	Suhu 55C	17.080	.023	2
Botol Kaca	Suhu 4C	17.300	.023	2
	Suhu 25C	17.480	.023	2
	Suhu 55C	17.540	.023	2

**Tests of Between-Subjects Effects**

Dependent Variable: Kadar Air

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.423 <sup>a</sup>	5	.085	79.400	<,001
Intercept	3605.333	1	3605.333	3380000.000	<,001
A	.137	1	.137	128.000	<,001
B	.027	2	.014	12.875	.007
A * B	.259	2	.130	121.625	<,001
Error	.006	6	.001		
Total	3605.763	12			
Corrected Total	.430	11			

a. R Squared = .985 (Adjusted R Squared = .973)

**Kadar Air**

Duncan<sup>a,b</sup>

Faktor A Jenis Kemasan	N	Subset		
		1	2	3
A1	6		17.2267	
A2	6			17.4400
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .001.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = 0,05.

### Kadar Air

Duncan<sup>a,b</sup>

Faktor B Suhu Penyimpanan	N	Subset	
		1	2
Suhu 25C	4	17.2900	
Suhu 55C	4	17.3100	
Suhu 4C	4		17.4000
Sig.		.420	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .001.

a. Uses Harmonic Mean Sample Size = 4.000.

b. Alpha = 0,05.

### Kadar Air

Duncan<sup>a,b</sup>

Duncan <sup>a</sup>	Interaksi Faktor A dan Faktor B	N	Subset for alpha = 0.05		
			1	2	3
	A1B3	2	17.0800		
	A1B2	2	17.1000		
	A2B1	2		17.3000	
	A2B2	2			17.4800
	A1B1	2			17.5000
	A2B3	2			17.5400
	Sig.		.563	1.000	.126

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

**Lampiran 10.** Perhitungan analisis sidik ragam (Anova) dan uji lanjut (SPSS)  
kadar gula pereduksi

**Descriptive Statistics**

Dependent Variable: Gula Pereduksi

Faktor A Jenis Kemasan	Faktor B Suhu Penyimpanan	Mean	Std. Error	N
Botol PET	Suhu 4C	73.645	.407	2
	Suhu 25C	75.330	.407	2
	Suhu 55C	76.335	.407	2
Botol Kaca	Suhu 4C	75.950	.407	2
	Suhu 25C	76.125	.407	2
	Suhu 55C	73.835	.407	2

**Tests of Between-Subjects Effects**

Dependent Variable: Gula Pereduksi

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14.009 <sup>a</sup>	5	2.802	8.465	.011
Intercept	67866.496	1	67866.496	205055.382	<.001
A	.120	1	.120	.363	.569
B	1.814	2	.907	2.740	.143
A * B	12.075	2	6.038	18.242	.003
Error	1.986	6	.331		
Total	67882.491	12			
Corrected Total	15.995	11			

a. R Squared = .876 (Adjusted R Squared = .772)

**Gula Pereduksi**

Duncan<sup>a,b</sup>

Faktor Jenis Kemasan (A)	N	Subset	
		1	2
A1	6		75.1033
A2	6		75.3033
Sig.		1.000	.480

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .221.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = 0,05.

### Gula Pereduksi

Duncan<sup>a,b</sup>

Faktor B	N	Subset
Suhu Penyimpanan		1
Suhu 4C	4	74.7975
Suhu 55C	4	75.0850
Suhu 25C	4	75.7275
Sig.		.069

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = .331.

a. Uses Harmonic Mean Sample Size = 4.000.

b. Alpha = 0,05.

### Gula Pereduksi

Duncan<sup>a,b</sup>

Interaksi		N	Subset for alpha = 0.05	
Faktor A dan Faktor B			1	2
Duncan <sup>a</sup>	A1B1	2	73.6450	
	A2B3	2	73.8350	
	A1B2	2		75.3300
	A2B1	2		75.9500
	A2B2	2		76.1250
	A1B3	2		76.3350
	Sig.			.752

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 2.000.

**Lampiran 11.** Gambar-gambar terkait madu Cinumpang





Lanjutan.





Lanjutan.

