

## 7. LAMPIRAN

### 7.1. Hasil Analisis Statistik Es Krim Kulit Buah Naga dan Buah Sirsak dengan Penambahan Jenis Zat Penstabil dengan Variasi Konsentrasi SPSS

#### a. Normalitas

##### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Aksial	,153	60	,001	,973	60	,198

a. Lilliefors Significance Correction

#### Lampiran 1. Uji Normalitas *Overrun* SPSS

##### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for Aksial	,111	60	,061	,971	60	,171

a. Lilliefors Significance Correction

#### Lampiran 2. Uji Normalitas *Melting Rate* SPSS

##### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Aksial	,105	60	,163	,968	60	,120

a. Lilliefors Significance Correction

#### Lampiran 3. Uji Normalitas Viskositas SPSS

##### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Aksial	,151	60	,002	,973	60	,208

a. Lilliefors Significance Correction

#### Lampiran 4. Uji Normalitas Total Padatan SPSS

*b. Overrun*

**Aksial**

Duncan<sup>a,b,c</sup>

KadarPenstabil	N	Subset		
		1	2	3
0,5%	18	30,2333		
0,3%	18	34,7833		
0,1%	18		43,6000	
0%	6			61,8333
Sig.		,141	1,000	1,000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 55,627.

- Uses Harmonic Mean Sample Size = 12,000.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- Alpha = ,05.

Lampiran 5. Hasil Analisis *Overrun* SPSS Konsentras Penstabil

**Aksial**

Duncan<sup>a,b,c</sup>

JenisPenstabil	N	Subset		
		1	2	3
Gelatin	18	23,7889		
CMC	18		40,6111	
Gum Arab	18		44,2167	
kontrol	6			61,8333
Sig.		1,000	,228	1,000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 52,452.

- Uses Harmonic Mean Sample Size = 12,000.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- Alpha = ,05.

Lampiran 6. Hasil Analisis *Overrun* SPSS Jenis Penstabil

c. *Melting Rate*

Aksial

Duncan<sup>a,b,c</sup>

KadarPenstabil	N	Subset		
		1	2	3
0,5%	18	,67856		
0,3%	18	,71944	,71944	
0,1%	18		,81161	,81161
0%	6			,85850
Sig.		,382	,052	,316

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = ,013.

- Uses Harmonic Mean Sample Size = 12,000.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- Alpha = ,05.

Lampiran 7. Hasil Analisis *Melting Rate* Konsentrasi Penstabil

Duncan<sup>a,b,c</sup>

JenisPenstabil	N	Subset		
		1	2	3
Gelatin	18	,64289		
CMC	18		,72606	
Gum Arab	18			,84067
Kontrol	6			,85850
Sig.		1,000	1,000	,582

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = ,006.

- Uses Harmonic Mean Sample Size = 12,000.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- Alpha = ,05.

Lampiran 8. Hasil Analisis *Melting Rate* Jenis Penstabil

## d. Viskositas

## Aksial

Duncan<sup>a,b,c</sup>

KadarPenstabil	N	Subset		
		1	2	3
0%	6	254,8333		
0,1%	18		312,0556	
0,3 <sup>a</sup>	18		342,2778	342,2778
0,5%	18			365,4444
Sig.		1,000	,108	,215

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 2051,604.

a. Uses Harmonic Mean Sample Size = 12,000.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = ,05.

## Lampiran 9. Hasil Analisis Viskositas SPSS Konsentrasi Penstabil

## Aksial

Duncan<sup>a,b,c</sup>

JenisPenstabil	N	Subset		
		1	2	3
Kontrol	6	254,8333		
Gum Arab	18		312,8333	
CMC	18			352,8889
Gelatin	18			354,0556
Sig.		1,000	1,000	,948

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1873,497.

a. Uses Harmonic Mean Sample Size = 12,000.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = ,05.

## Lampiran 10. Hasil Analisis Viskositas SPSS Jenis Penstabil

## e. Total Padatan

**Aksial**

Duncan<sup>a,b,c</sup>

KadarPenstabil	N	Subset		
		1	2	3
0%	6	25,51833		
0,1%	18		31,23944	
0,3%	18		34,28111	34,28111
0,5%	18			36,57667
Sig.		1,000	,091	,199

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 18,699.

- Uses Harmonic Mean Sample Size = 12,000.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- Alpha = ,05.

Lampiran 11. Hasil Analisis Total Padatan SPSS Konsentrasi Penstabil

**Aksial**

Duncan<sup>a,b,c</sup>

KadarPenstabil	N	Subset		
		1	2	3
0%	6	25,51833		
0,1%	18		31,23944	
0,3%	18		34,28111	34,28111
0,5%	18			36,57667
Sig.		1,000	,091	,199

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 18,699.

- Uses Harmonic Mean Sample Size = 12,000.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- Alpha = ,05.

Lampiran 12. Hasil Analisis Total Padatan SPSS Jenis Penstabil

## f. Korelasi

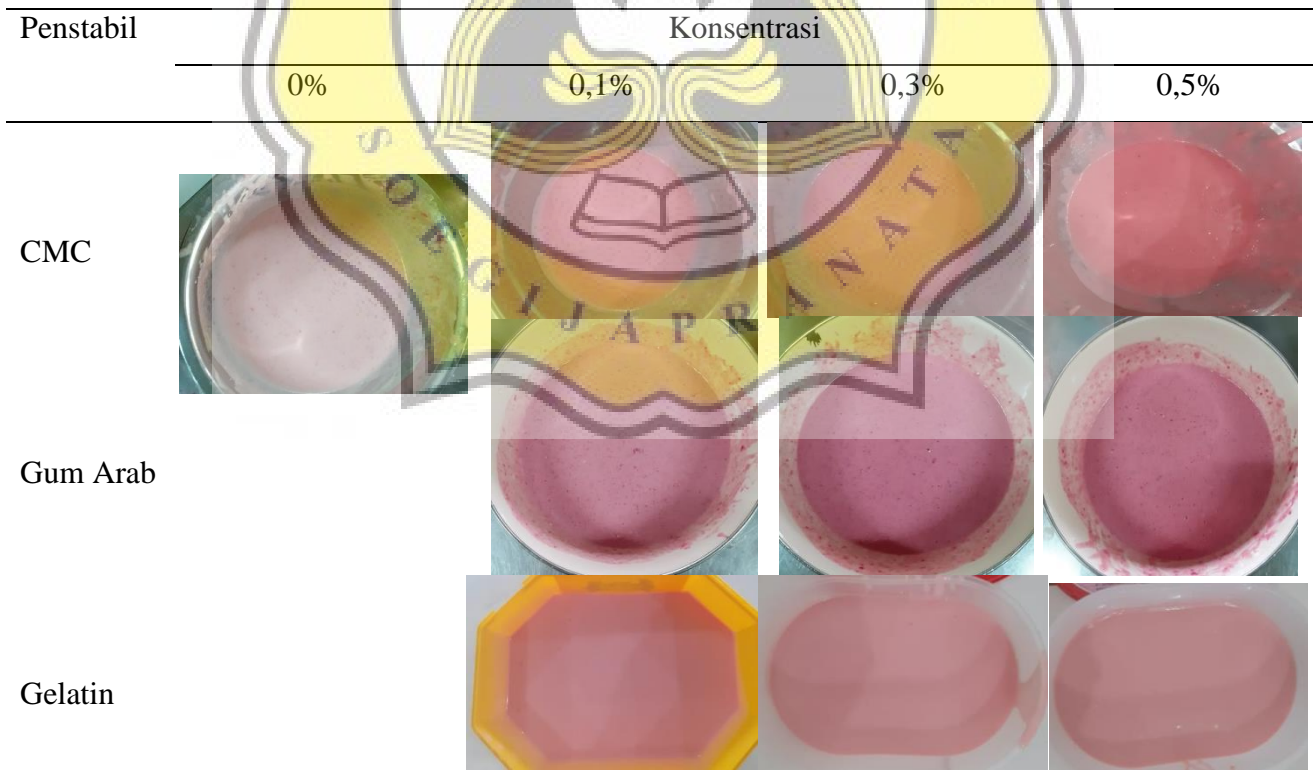
Correlations

		Overrun	MeltingRate	Viskositas	TotalPadatan
Overrun	Pearson Correlation	1	,623**	-,517**	-,518**
	Sig. (2-tailed)		,000	,000	,000
	N	60	60	60	60
MeltingRate	Pearson Correlation	,623**	1	-,557**	-,558**
	Sig. (2-tailed)	,000		,000	,000
	N	60	60	60	60
Viskositas	Pearson Correlation	-,517**	-,557**	1	1,000**
	Sig. (2-tailed)	,000	,000		,000
	N	60	60	60	60
TotalPadatan	Pearson Correlation	-,518**	-,558**	1,000**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	60	60	60	60

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

Lampiran 13. Hasil Analisis Korelasi

## 7.2. Kegiatan Penelitian



Lampiran 14. Es Krim Kulit Buah Naga dan Buah Sirsak dengan Penambahan Zat Penstabil dan Variasi Konsentrasi



Lampiran 15. Analisis Viskositas Sampel Es Krim



Lampiran 16. Analisis Total Padatan Menggunakan Oven



**6.61%** PLAGIARISM  
APPROXIMATELY

## Report #11982274

PENDAHULUAN Latar Belakang Es krim merupakan makanan semi padat yang dibuat dengan proses pembekuan susu, lemak hewani, gula, serta tambahan bahan pangan lain seperti pewarna, pengemulsi, penstabil dan lain-lain. Prinsip dari pembuatan es krim sendiri cukup sederhana adalah dengan mencampurkan dan membekukannya. Saat ini, es krim menjadi sangat populer di seluruh golongan masyarakat karena rasanya yang manis, tekstur yang halus, dan mudah lumer di mulut sehingga cocok dinikmati saat musim panas tiba. Es krim yang baik memiliki tekstur yang tidak keras, lembut, dan tampak mengkilat. Tekstur es krim ini dipengaruhi oleh komponen es krim terutama komponen lemak, gula, dan zat penstabil. **19** Penggunaan zat penstabil juga perlu diperhatikan karena dapat mengurangi rasa manis gula dan mengubah cita rasa dari es krim (Thompson et al., 2009). Penstabil yang biasa ditambahkan pada campuran es krim sebesar 0,1-0,5% (Bahramparvar & Tehrani, 2011) Jenis zat penstabil yang biasa digunakan pada es krim adalah gelatin, karagenan, pektin, gum arab, dan CMC (carboxymethyl cellulose). Pada penelitian ini, jenis zat penstabil yang ditambahkan pada es krim kulit buah naga adalah CMC, gum arab, dan gelatin. Ketiga jenis zat penstabil ini memiliki karakteristik masing-masing, seperti gelatin yang memiliki sifat mudah meleleh ketika terjadi pemanasan dan mudah kembali