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# LAMPIRAN

Lampiran 1. Metode Analisis Kadar Karotenoid dengan Metode Kirk (1965 dalam Thirumaran dan Anantharaman, 2009) sebagai berikut:

1. Jaringan sebanyak 500 mg digerus dalam 100 ml aseton 80 % sampai homogen.
2. Disentripus pada kecepatan 3000 rpm selama 15 menit untuk memperoleh supernatan.
3. Butiran supernatan diekstrasi ulang melalui pencucian dengan 5 ml aseton 80% sampai tidak berwarna.
4. Ekstrak digunakan untuk menentukan pigmen-pigmen fotosintesis sesuai daya absorbansi 645 nm dan 663 nm, dan
5. Ekstrak karotenoid diukur sesuai daya absorbansi 480 nm dari alat sprekrofotometer.
6. Ekstrak kandungan diukur dengan formula “ Karotenoid (mg/g)=  $\Delta A_{480} + (0,114 \times \Delta A_{663}) - (0,638 \times \Delta A_{645})$  ”

Lampiran 2. Metode Analisis Kadar Serat dengan Metode AAS (Atomic Absorbtion Spektrofotometer)

1. Cawan porselin yang telah bersih yang telah bersih di oven pada suhu 105°C selama 2 jam.
2. Dinginkan dalam eksikator selama ½ jam kemudian di timbang kedalam cawan porselin di timbang ± 1 gram, kemudian di masukkan ke dalam tanur.
3. Suhu tanur diatur hingga 600°C, kemudian dibiarkan selama 3 jam sampai menjadi abu
4. Biarkan agak dingin kemudian masukkan kedalam eksikator selama ½ jam
5. Abu dalam cawan porselin pada penetapan kadar abu ditambahkan 3-5 ml HCl pekat
6. Encerkan dengan air suling hingga volume mendekati bibir cawan dan biarkan bermalam
7. Kemudian tuang ke dalam labu ukur 100 ml
8. Bilas dengan air suling hingga tanda garis lalu kocok hingga homogen (siap untuk penetapan mineral)
9. Saring menggunakan kertas saring kemudian injekkan ke alat AAS
10. Buat kurva standar sesuai logam yang akan dianalisis

Lampiran 3. Metode Analisis Kadar Serat dengan Metode AAS (Atomic Absorbtion Spektrofotometer)

1. Masing-masing 2 gram sampel di masukkan kedalam tabung digestion block
2. Sampel dicampur pada air destilasi sebanyak 0.5 ml untuk menghindari percikan air dan untuk mempermudah reaksi yang cepat dengan asam.
3. Sampel yang ditambah air didestruksi dengan 10 ml konsentrasi  $\text{HNO}_3$  yang dilakukan pada suhu sekitar  $100^\circ\text{C}$  selama kurang lebih 2 jam.
4. Setelah didinginkan selama kurang lebuh 15 menit, sebanyak 0.5 ml perchlorat ( $\text{HClO}_4$ ) dimasukkan pada larutan tadi sedikit demi sedikit
5. Kemudian larutan dipanaskan lagi di digestion block selama kurang lebih 1 jam
6. Kemudian ditambahkan dengan air destilasi sebanyak 50 ml
7. Saring menggunakan kertas saring whatman no. 42
8. Hasil saringan kemudian siap untuk dianalisis
9. Buat standar mineral yang dimaksud
10. Ukur menggunakan AAS

Lampiran 4. Data pertumbuhan mutlak *C. lentilifera* pada metode budidaya berbeda

<b>PERTUMBUHAN MUTLAK (W)</b>			
<b>Ulangan</b>	<b>Berat rata-rata awal (W<sub>t</sub>)</b>	<b>Berat rata-rata akhir (W<sub>o</sub>)</b>	<b>W=W<sub>t</sub>-W<sub>o</sub></b>
1	200	208	8,00
2	200	215	15,00
3	200	210	10,00
<b>Rata-rata</b>			<b>11,00</b>
<b>SD</b>			<b>3,61</b>
1	200	300	100,00
2	200	303	103,00
3	200	292	92,00
<b>Rata-rata</b>			<b>98,33</b>
<b>SD</b>			<b>5,69</b>
1	200	267	67,00
2	200	278	78,00
3	200	262	62,00
<b>Rata-rata</b>			<b>69,00</b>
<b>SD</b>			<b>8,19</b>

Lampiran 5. Data kandungan karotenoid *C. lentilifera* pada metode budidaya berbeda

<b>Perlakuan</b>	<b>Ulangan</b>	<b>Kandungan Karotenoid</b>
<b>Metode Dasar</b>	1	8,435
	2	8,454
	3	8,394
	<b>Rata-rata</b>	<b>8,423</b>
<b>Metode Lepas Dasar</b>	<b>STD</b>	<b>0,031</b>
	1	8,298
	2	8,106
	3	8,147
<b>Metode Permukaan</b>	<b>Rata-rata</b>	<b>8,184</b>
	<b>STD</b>	<b>0,101</b>
	1	8,196
	2	8,242
<b>Metode Permukaan</b>	3	7,887
	<b>Rata-rata</b>	<b>8,108</b>
	<b>STD</b>	<b>0,193</b>

Lampiran 6. Data kadar serat *C. lenticulifera* pada metode budidaya berbeda

<b>Perlakuan</b>	<b>Ulangan</b>	<b>Kadar Serat</b>
<b>Metode Dasar</b>	1	7,97
	2	7,95
	3	6,95
	<b>Rata-rata</b>	<b>7,62</b>
<b>Metode Lepas Dasar</b>	<b>STD</b>	<b>0,58</b>
	1	5,76
	2	6,56
	3	5,44
<b>Metode Permukaan</b>	<b>Rata-rata</b>	<b>5,92</b>
	<b>STD</b>	<b>0,58</b>
	1	6,66
	2	5,12
<b>Metode Permukaan</b>	3	6,65
	<b>Rata-rata</b>	<b>6,14</b>
	<b>STD</b>	<b>0,89</b>

Lampiran 7. Data kadar abu *C. lenticulifera* pada metode budidaya berbeda

<b>Perlakuan</b>	<b>Ulangan</b>	<b>Kadar Abu</b>
<b>Metode Dasar</b>	1	25,12
	2	23,28
	3	24,72
	<b>Rata-rata</b>	<b>24,37</b>
<b>Metode Lepas Dasar</b>	<b>STD</b>	<b>0,97</b>
	1	32,53
	2	35,95
	3	33,21
<b>Metode Permukaan</b>	<b>Rata-rata</b>	<b>33,90</b>
	<b>STD</b>	<b>1,81</b>
	1	32,66
	2	31,38
<b>Metode Permukaan</b>	3	34,4
	<b>Rata-rata</b>	<b>32,81</b>
	<b>STD</b>	<b>1,52</b>

Lampiran 8. Hasil analisis ragam pertumbuhan mutlak *C. lentilifera*

### **ANOVA**

#### **Pertumbuhan Mutlak**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11851.556	2	5925.778	158.255	.000
Within Groups	224.667	6	37.444		
Total	12076.222	8			

Lampiran 9. Hasil uji lanjut W-Tuckey pertumbuhan mutlak *C. lentilifera*

#### **Pertumbuhan**

#### **Tukey HSD<sup>a</sup>**

Perlakuan	N	Subset for alpha = 0.05		
		1	2	3
Dasar	3	11.00		
Permukaan	3		69.00	
Lepas dasar	3			98.33
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 10. Hasil analisis ragam kandungan karotenoid *C. lentilifera*

### **ANOVA**

#### **Karotenoid**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.167	2	.084	5.178	.049
Within Groups	.097	6	.016		
Total	.264	8			

Lampiran 11. Hasil uji lanjut W-Tuckey kandungan karotenoid *C. lentilifera*

### **Karotenoid**

#### **Tukey HSD<sup>a</sup>**

Perlakuan	N	Subset for alpha = 0.05	
		1	2
Permukaan	3	8.10833	
Lepas dasar	3		8.18367
Dasar	3		8.42767
Sig.		.758	.123

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 12. Hasil analisis ragam kadar serat *C. lentilifera*

### **ANOVA**

#### **Serat**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.142	2	2.571	5.288	.047
Within Groups	2.917	6	.486		
Total	8.058	8			

Lampiran 13. Hasil uji lanjut W-Tuckey kadar serat *C. lentilifera*

#### **Serat**

#### Tukey HSD<sup>a</sup>

Subset for alpha = 0.05		
Perlakuan	N	1
Lepas dasar	3	5.9200
Permukaan	3	6.1433
Dasar	3	7.6233
Sig.		.055

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Lampiran 14. Hasil analisis ragam kadar abu *C. lentilifera*

**ANOVA**

**Abu**

Sum of					
	Squares	df	Mean Square	F	Sig.
Between Groups	163.101	2	81.551	37.569	.000
Within Groups	13.024	6	2.171		
Total	176.125	8			

Lampiran 15. Hasil uji lanjut W-Tuckey kadar abu *C. lentilifera*

**Abu**

Tukey HSD<sup>a</sup>

Subset for alpha = 0.05			
Perlakuan	N	1	2
Dasar	3	24.3733	
Permukaan	3		32.8133
Lepas dasar	3		33.8967
Sig.		1.000	.660

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.