Perpustakaan Unika

LAMPIRAN

Lampiran 1. Rumus Penghitungan Rasio (%) Konsentrasi Cd dalam Sampel

Penghitungan rasio (%) antara konsentrasi Cd masing-masing perlakuan dengan konsentrasi Cd kontrol (perebusan dengan aquades selama 10 menit) menggunakan rumus:

$$\frac{a}{b} \times 100\%$$

Keterangan:

a = konsentrasi Cd perlakuan

b = konsentrasi Cd pada perebusan dengan aquades selama 10 menit (kontrol)

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Lampiran 2. Proporsi *Edible* dan *Non Edible Portion* Kerang

No.	Berat Basah (g)		Berat kering (g)	
	EP	NEP	EP	NEP
1	15,518	2,511	4,112	0,726
2	16,095	11,749	4,111	0,505
3	13,560	1,930	3,453	0,520
4	16,876	3,165	4,427	0,876
5	19,398	2,506	4,276	0,723
6	14,928	2,084	3,723	0,565
7	23,807	3,264	11,714	0,918
8	14,955	2,182	3,857	0,551
9	15,755	2,279	3,905	0,604
10	16,620	2,316	4,277	0,642
11	14,817	2,955	3,318	0,858
12	15,119	2,463	3,766	0,668
13	20,110	3,602	4,748	1,053
14	20,012	3,081	4,388	0,959
15	17,145	3,466	2,978	1,148
16	20,300	3,331	4,462	0,910
17	19,186	4,042	4,302	1,071
18	17,908	2,761	4,126	1,021
19	19,614	3,263	4,602	0,935
20	17,385	3,707	4,064	1,021
21	18,151	3,928	4,088	1,039
22	17,778	3,221	4,332	0,958
23	17,374	4,340	4,003	1,127
24	15,286	3,480	3,188	0,906
25	13,786	2,398	3,781	0,747
26	13,000	2,534	3,571	0,796
27	12,867	2,393	3,528	0,781
28	12,971	2,322	3,595	0,709
29	12,591	2,291	3,453	0,714
30	13,367	2,376	3,720	0,817
31	12,653	2,568	3,669	0,754
32	13,341	2,603	3,593	0,785
33	12,932	2,242	3,618	0,781
34	13,517	2,761	3,677	0,806
35	10,890	2,162	3,418	0,718
36	12,689	2,026	3,621	0,764
37	11,668	3,546	4,419	1,054
38	14,348	3,627	3,825	1,137
39	14,915	3,639	4,040	1,175
40	14,100	3,248	3,788	0,993
41	13,919	3,470	3,740	1,117
42	12,888	2,973	3,471	0,924
43	16,656	3,659	5,455	1,092
44	13,105	2,976	3,519	0,892
45	15,468	3,610	4,103	1,057

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No.	Berat Basah (g)		Berat kering (g)	
	EP	NEP	EP	NEP
46	15,088	3,552	3,999	1,042
47	15,774	3,553	4,281	1,116
48	15,482	3,505	3,273	1,134
49	15,789	3,601	4,334	1,162
50	15,056	3,733	4,274	1,262
51	13,162	3,103	3,452	0,969
52	14,842	3,770	4,071	1,140
53	13,949	3,292	3,704	1,025
54	15,292	3,909	4,016	1,197
55	14,771	3,687	4,062	1,149
56	16,927	3,845	4,508	1,184
57	15,510	3,950	4,139	1,217
58	15,954	3,674	4,442	1,127
59	14,617	3,498	3,881	1,063
60	14,428	3,584	3,866	1,036
61	11,291	2,456	2,764	0,626
62	11,235	2,492	2,593	0,606
63	10,309	2,492	2,456	0,613
64	11,039	2,562	2,632	0,635
65	11,243	2,651	2,581	0,604
66	10,889	2,241	2,523	0,533
67	11,700	2,841	2,740	0,668
68	11,119	2,516	2,600	0,614
69	10,427	2,467	2,429	0,591
70	11,302	2,859	2,675	0,679
71	10,371	2,599	2,498	0,608
72	10,456	7,635	2,443	0,606
73	13,588	2,637	3,540	0,826
74	13,417	2,598	2,463	0,785
75	13,730	2,460	4,228	0,742
76	13,024	2,401	2,913	0,711
77	12,915	2,497	3,282	0,739
78	12,409	2,441	3,608	0,771
79	12,985	2,449	3,330	0,685
80	14,986	2,869	3,869	0,833
81	13,708	2,851	3,510	0,823
82	13,566	2,740	3,564	0,787
83	14,704	2,911	3,660	0,829
84	12,701	2,695	3,247	0,786
85	15,786	3,540	3,081	1,072
86	15,684	4,016	4,124	1,210
87	15,267	3,670	3,932	1,111
88	15,933	4,152	4,190	1,217
89	15,933	3,778	4,155	1,130
90	15,306	3,586	4,047	1,079
91	16,009	3,683	4,250	1,063

Perpustakaan Unika

No.	Berat Basah (g)		Berat kering (g)	
	EP	NEP	EP	NEP
92	15,293	3,568	3,997	1,074
93	15,350	3,632	4,054	1,116
94	16,187	4,088	4,425	1,253
95	16,125	3,628	4,297	1,118
96	15,343	3,687	3,949	1,086
97	17,160	4,835	4,363	1,401
98	15,280	3,987	3,791	1,161
99	16,301	4,007	4,054	1,159
100	15,327	3,669	3,918	1,083
101	15,897	4,207	3,743	1,178
102	14,767	3,896	3,708	1,133
103	15,331	4,130	3,939	1,175
104	15,238	4,352	3,734	1,214
105	13,752	3,610	3,372	1,061
106	11,659	3,432	2,861	0,920
107	15,463	4,029	3,824	1,129
108	14,060	4,060	3,477	1,144
109	16,410	4,810	4,226	1,477
110	17,724	4,173	4,574	1,273
111	16,573	4,417	4,145	1,278
112	17,031	4,796	4,434	4,474
113	16,560	4,440	4,130	1,312
114	17,518	4,539	4,412	1,310
115	17,434	4,686	4,523	1,371
116	16,882	4,617	4,291	1,381
117	16,538	4,165	4,141	1,250
118	16,730	5,042	4,362	1,448
119	17,714	4,568	4,454	1,281
120	16,126	4,390	4,054	1,244
rata"	14,923	3,421	3,844	0,990

EP = *edible portion* kerang

NEP = *non edible portion* kerang

Perpustakaan Unika

Lampiran 3. Penghitungan Konsentrasi Cd (µg/g bk) dalam Sampel

Konsentrasi Cd dalam sampel dihitung menggunakan rumus :

$$\text{Konsentrasi Cd } (\mu g/g \text{ bk}) = \frac{(\mu g \text{ logam/ml dari kurva kalibrasi}) \times v}{m}$$

v = 10 ml

m = 0,2 g

Konsentrasi Cd (µg/g bk) *Edible Portion* Kerang

Perlk	Ul	µg/ml	Cd (µg/g)
A	1	0,150	7,500
	2	0,071	3,550
	3	0,151	7,550
	4	0,180	9,000
	5	0,081	4,050
	6	0,093	4,650
	7	0,153	7,650
	8	0,176	8,800
	9	0,114	5,700
	10	0,095	4,750
B	1	0,115	5,750
	2	0,079	3,950
	3	0,106	5,300
	4	0,188	9,400
	5	0,081	4,050
	6	0,085	4,250
	7	0,163	8,150
	8	0,172	8,600
	9	0,080	4,000
	10	0,112	5,600
C	1	0,166	8,300
	2	0,080	4,000
	3	0,134	6,700
	4	0,106	5,300
	5	0,072	3,600
	6	0,075	3,750
	7	0,173	8,650
	8	0,184	9,200
	9	0,098	4,900
	10	0,092	4,600

Perlk	Ul	µg/ml	Cd (µg/g)
D	1	0,146	7,300
	2	0,081	4,050
	3	0,154	7,700
	4	0,109	5,450
	5	0,100	5,000
	6	0,108	5,400
	7	0,155	7,750
	8	0,135	6,750
	9	0,122	6,100
	10	0,069	3,450
E	1	0,119	5,950
	2	0,076	3,800
	3	0,094	4,700
	4	0,131	6,550
	5	0,123	6,150
	6	0,074	3,700
	7	0,117	5,850
	8	0,150	7,500
	9	0,121	6,050
	10	0,103	5,150
F	1	0,080	4,000
	2	0,083	4,150
	3	0,144	7,200
	4	0,162	8,100
	5	0,092	4,600
	6	0,087	4,350
	7	0,151	7,550
	8	0,140	7,000
	9	0,116	5,800
	10	0,123	6,150

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Perlk	Ul	µg/ml	Cd (µg/g)
G	1	0,149	7,450
	2	0,087	4,350
	3	0,103	5,150
	4	0,159	7,950
	5	0,093	4,650
	6	0,079	3,950
	7	0,144	7,200
	8	0,140	7,000
	9	0,090	4,500
	10	0,091	4,550
H	1	0,110	5,500
	2	0,072	3,600
	3	0,091	4,550
	4	0,106	5,300
	5	0,108	5,400
	6	0,084	4,200
	7	0,127	6,350
	8	0,078	3,900
	9	0,103	5,150
	10	0,088	4,400
I	1	0,111	5,550
	2	0,093	4,650
	3	0,085	4,250
	4	0,134	6,700
	5	0,112	5,600
	6	0,090	4,500
	7	0,160	8,000
	8	0,155	7,750
	9	0,106	5,300
	10	0,090	4,500

Perlk	Ul	µg/ml	Cd (µg/g)
J	1	0,151	7,550
	2	0,091	4,550
	3	0,071	3,550
	4	0,156	7,800
	5	0,085	4,250
	6	0,125	6,250
	7	0,115	5,750
	8	0,154	7,700
	9	0,085	4,250
	10	0,084	4,200
K	1	0,159	7,950
	2	0,078	3,900
	3	0,102	5,100
	4	0,110	5,500
	5	0,092	4,600
	6	0,100	5,000
	7	0,115	5,750
	8	0,152	7,600
	9	0,106	5,300
	10	0,099	4,950
L	1	0,147	7,350
	2	0,077	3,850
	3	0,118	5,900
	4	0,164	8,200
	5	0,127	6,350
	6	0,084	4,200
	7	0,129	6,450
	8	0,139	6,950
	9	0,070	3,500
	10	0,078	3,900

Keterangan kode perlakuan:

A – C : perebusan dengan aquades selama 10, 20, 30 menit
D – F : perebusan dengan larutan EDTA 17 ppm selama 10, 20, 30 menit
G – I : perebusan dengan larutan EDTA 34 ppm selama 10, 20, 30 menit
J – L : perebusan dengan larutan EDTA 68 ppm selama 10, 20, 30 menit

Perpustakaan Unika

Konsentrasi Cd (µg/g bk) *Non Edible Portion* Kerang

Perlk	Ul	µg/ml	Cd (µg/g)
A	1	0,110	5,500
	2	0,045	2,250
	3	0,116	5,800
	4	0,103	5,150
	5	0,077	3,850
	6	0,112	5,600
	7	0,050	2,500
	8	0,085	4,250
	9	0,094	4,700
	10	0,053	2,650
B	1	0,136	6,800
	2	0,058	2,900
	3	0,046	2,300
	4	0,121	6,050
	5	0,092	4,600
	6	0,080	4,000
	7	0,080	4,000
	8	0,097	4,850
	9	0,115	5,750
	10	0,061	3,050
C	1	0,087	4,350
	2	0,061	3,050
	3	0,093	4,650
	4	0,104	5,200
	5	0,082	4,100
	6	0,092	4,600
	7	0,131	6,550
	8	0,095	4,750
	9	0,073	3,650
	10	0,078	3,900
D	1	0,091	4,550
	2	0,061	3,050
	3	0,099	4,950
	4	0,066	3,300
	5	0,085	4,250
	6	0,090	4,500
	7	0,076	3,800
	8	0,095	4,750
	9	0,074	3,700
	10	0,089	4,450

Perlk	Ul	µg/ml	Cd (µg/g)
E	1	0,107	5,350
	2	0,063	3,150
	3	0,077	3,850
	4	0,098	4,900
	5	0,076	3,800
	6	0,090	4,500
	7	0,113	5,650
	8	0,082	4,100
	9	0,110	5,500
	10	0,076	3,800
F	1	0,079	3,950
	2	0,064	3,200
	3	0,097	4,850
	4	0,097	4,850
	5	0,096	4,800
	6	0,083	4,150
	7	0,078	3,900
	8	0,087	4,350
	9	0,079	3,950
	10	0,082	4,100
G	1	0,100	5,000
	2	0,074	3,700
	3	0,087	4,350
	4	0,102	5,100
	5	0,066	3,300
	6	0,085	4,250
	7	0,093	4,650
	8	0,068	3,400
	9	0,083	4,150
	10	0,077	3,850
H	1	0,096	4,800
	2	0,067	3,350
	3	0,076	3,800
	4	0,094	4,700
	5	0,066	3,300
	6	0,070	3,500
	7	0,082	4,100
	8	0,085	4,250
	9	0,064	3,200
	10	0,065	3,250

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Perlk	Ul	µg/ml	Cd (µg/g)
I	1	0,099	4,950
	2	0,069	3,450
	3	0,091	4,550
	4	0,103	5,150
	5	0,098	4,900
	6	0,061	3,050
	7	0,099	4,950
	8	0,094	4,700
	9	0,078	3,900
	10	0,070	3,500
J	1	0,120	6,000
	2	0,040	2,000
	3	0,053	2,650
	4	0,120	6,000
	5	0,088	4,400
	6	0,096	4,800
	7	0,052	2,600
	8	0,106	5,300
	9	0,046	2,300
	10	0,099	4,950

Perlk	Ul	µg/ml	Cd (µg/g)
K	1	0,112	5,600
	2	0,078	3,900
	3	0,060	3,000
	4	0,102	5,100
	5	0,098	4,900
	6	0,092	4,600
	7	0,110	5,500
	8	0,102	5,100
	9	0,086	4,300
	10	0,070	3,500
L	1	0,131	6,550
	2	0,047	2,350
	3	0,100	5,000
	4	0,116	5,800
	5	0,072	3,600
	6	0,091	4,550
	7	0,101	5,050
	8	0,094	4,700
	9	0,061	3,050
	10	0,060	3,000

Keterangan kode perlakuan:

A – C : perebusan dengan aquades selama 10, 20, 30 menit
D – F : perebusan dengan larutan EDTA 17 ppm selama 10, 20, 30 menit
G – I : perebusan dengan larutan EDTA 34 ppm selama 10, 20, 30 menit
J – L : perebusan dengan larutan EDTA 68 ppm selama 10, 20, 30 menit

Perpustakaan Unika

Lampiran 4. Hasil Analisa Statistik dan Uji *Univariate*

Explore

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
CD1	,049	240	,200*

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

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Univariate Analysis of Variance

Levene's Test of Equality of Error Variances[a]

Dependent Variable: CD1

F	df1	df2	Sig.
3,403	23	216	,000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+EDTA+WAKTU+BAGIAN+EDTA * WAKTU+EDTA * BAGIAN+WAKTU * BAGIAN+EDTA * WAKTU * BAGIAN

Tests of Between-Subjects Effects

Dependent Variable: CD1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	5,391[a]	23	,234	3,265	,000
Intercept	17223,622	1	17223,622	239921,5	,000
EDTA	,136	3	4,531E-02	,631	,596
WAKTU	3,749E-02	2	1,874E-02	,261	,770
BAGIAN	4,760	1	4,760	66,301	,000
EDTA * WAKTU	,253	6	4,221E-02	,588	,740
EDTA * BAGIAN	2,162E-02	3	7,205E-03	,100	,960
WAKTU * BAGIAN	,128	2	6,421E-02	,894	,410
EDTA * WAKTU * BAGIAN	5,438E-02	6	9,063E-03	,126	,993
Error	15,506	216	7,179E-02		
Total	17244,519	240			
Corrected Total	20,897	239			

a. R Squared = ,258 (Adjusted R Squared = ,179)

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Post Hoc Tests

EDTA
Homogeneous Subsets

CD1

Duncan[a,b]

EDTA	N	Subset 1
3	60	8,4367
4	60	8,4625
2	60	8,4891
1	60	8,4973
Sig.		,265

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 7,179E-02.

a. Uses Harmonic Mean Sample Size = 60,000.

b. Alpha = ,05.

WAKTU
Homogeneous Subsets

CD1

Duncan[a,b]

WAKTU	N	Subset 1
2	80	8,4592
1	80	8,4665
3	80	8,4886
Sig.		,517

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 7,179E-02.

a. Uses Harmonic Mean Sample Size = 80,000.

b. Alpha = ,05.

Keterangan :

CD1 adalah konsentrasi Cd hasil transformasi dari konsentrasi Cd hasil penelitian dengan fungsi LN, untuk mendapatkan distribusi data normal.

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Descriptive Statistics

Dependent Variable: CD

EDTA	WAKTU	BAGIAN	Mean	Std. Deviation	N
1	1	1	6,320.00	2,013.04	10
		2	4,225.00	1,357.13	10
		Total	5,272.50	1,986.70	20
	2	1	5,905.00	2,071.83	10
		2	4,430.00	1,465.95	10
		Total	5,167.50	1,903.62	20
	3	1	5,900.00	2,145.41	10
		2	4,480.00	951.67	10
		Total	5,190.00	1,771.97	20
	Total	1	6,041.67	2,014.52	30
		2	4,378.33	1,237.82	30
		Total	5,210.00	1,857.76	60
2	1	1	5,895.00	1,493.40	10
		2	4,130.00	635.61	10
		Total	5,012.50	1,437.91	20
	2	1	5,540.00	1,203.19	10
		2	4,460.00	854.66	10
		Total	5,000.00	1,157.02	20
	3	1	5,890.00	1,538.36	10
		2	4,210.00	522.17	10
		Total	5,050.00	1,411.70	20
	Total	1	5,775.00	1,380.01	30
		2	4,266.67	676.11	30
		Total	5,020.83	1,318.78	60
3	1	1	5,675.00	1,531.57	10
		2	4,175.00	623.28	10
		Total	4,925.00	1,373.77	20
	2	1	4,835.00	846.25	10
		2	3,825.00	605.64	10
		Total	4,330.00	883.98	20
	3	1	5,680.00	1,364.88	10
		2	4,310.00	762.60	10
		Total	4,995.00	1,285.23	20
	Total	1	5,396.67	1,300.59	30
		2	4,103.33	676.82	30
		Total	4,750.00	1,217.32	60
4	1	1	5,585.00	1,848.72	10
		2	4,100.00	1,562.23	10
		Total	4,842.50	1,738.06	20
	2	1	5,565.00	1,271.71	10
		2	4,550.00	864.42	10
		Total	5,057.50	1,179.46	20
	3	1	5,665.00	1,676.65	10
		2	4,365.00	1,337.09	10
		Total	5,015.00	1,619.62	20
	Total	1	5,605.00	1,489.23	30
		2	4,338.33	1,256.75	30
		Total	4,971.67	1,508.10	60
Total	1	1	5,868.75	1,643.04	40
		2	4,157.50	1,083.24	40
		Total	5,013.13	1,628.91	80
	2	1	5,461.25	1,420.75	40
		2	4,316.25	1,003.03	40
		Total	4,888.75	1,350.95	80
	3	1	5,783.75	1,643.07	40
		2	4,341.25	910.19	40
		Total	5,062.50	1,506.16	80
	Total	1	5,704.58	1,569.11	120
		2	4,271.67	996.23	120
		Total	4,988.13	1,495.16	240

Keterangan: CD adalah konsentrasi Cd hasil penelitian