

PERHITUNGAN UJI NORMALITAS

NPAR TESTS /K-S(NORMAL)=klorofil /STATISTICS DESCRIPTIVES
 QUARTILES /MISSING ANALYSIS.

NPar Tests

[DataSet1]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
klorofil	24	11.498625	2.6418811	9.6970	17.2610	9.815500	10.467500	11.367000

One-Sample Kolmogorov-Smirnov Test

		klorofil
N		24
Normal Parameters ^{a,b}	Mean	11.498625
	Std. Deviation	2.6418811
Most Extreme Differences	Absolute	.345
	Positive	.345
	Negative	-.248
Kolmogorov-Smirnov Z		1.690
Asymp. Sig. (2-tailed)		.007

a. Test distribution is Normal.

b. Calculated from data.

PERHITUNGAN UJIKRUSKAL WALLIS

NPAR TESTS /K-W=klorofil BY perlakuan(1 6) /STATISTICS
 DESCRIPTIVES QUANTILES /MISSING ANALYSIS.

NPar Tests

[DataSet1]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
klorofil	24	11.498625	2.6418811	9.6970	17.2610	9.815500	10.467500	11.367000
perlakuan	24	3.50	1.745	1	6	2.00	3.50	5.00

Kruskal-Wallis Test

Ranks

	perlu an	N	Mean Rank
klorofil	1	4	22.50
	2	4	3.25
	3	4	14.50
	4	4	18.50
	5	4	10.50
	6	4	5.75
	Total	24	

Test Statistics^{a,b}

	Klorofil
Chi-Square	22.010
df	5
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable:

perlakuan

PERHITUNGAN UJI MANN-WHITNEY

NPAR TESTS /M-W= VAR00001 BY VAR00002(1 2)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00001	8	13.427375	3.9696708	9.6970	17.2610	9.708000	13.396500	17.128500
VAR00002	8	1.50	.535	1	2	1.00	1.50	2.00

Mann-Whitney Test

Ranks

	VAR00002	N	Mean Rank	Sum of Ranks
VAR00001	1	4	6.50	26.00
	2	4	2.50	10.00
	Total	8		

Test Statistics^b

	VAR00001
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00002

NPAR TESTS /M-W= VAR00003 BY VAR00004(1 3)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00003	8	13.982375	3.3767073	10.7240	17.2610	10.843500	13.966000	17.128500
VAR00004	8	2.00	1.069	1	3	1.00	2.00	3.00

Mann-Whitney Test

Ranks

VAR00004	N	Mean Rank	Sum of Ranks
1	4	6.50	26.00
3	4	2.50	10.00
Total	8		

Test Statistics^b

	VAR00003
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00004

NPAR TESTS /M-W= VAR00005 BY VAR00006(1 4)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00005	8	14.234750	3.1072877	11.2290	17.2610	11.299000	14.236000	17.128500
VAR00006	8	2.50	1.604	1	4	1.00	2.50	4.00

Mann-Whitney Test

Ranks

VAR00006		N	Mean Rank	Sum of Ranks
VAR00005	1	4	6.50	26.00
	4	4	2.50	10.00
	Total	8		

Test Statistics^b

	VAR00005
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00006

```
NPAR TESTS /M-W= VAR00007 BY VAR00008(1 5)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00007	8	13.663500	3.7172763	10.1590	17.2610	10.186750	13.630500	17.128500
VAR00008	8	3.00	2.138	1	5	1.00	3.00	5.00

Mann-Whitney Test

Ranks

	VAR00008	N	Mean Rank	Sum of Ranks
VAR00007	1	4	6.50	26.00
	5	4	2.50	10.00
	Total	8		

Test Statistics^b

	VAR00007
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00008

NPAR TESTS /M-W= VAR00009 BY VAR00010(1 6)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00009	8	13.468375	3.9260325	9.7060	17.2610	9.815500	13.448000	17.128500
VAR00010	8	3.50	2.673	1	6	1.00	3.50	6.00

Mann-Whitney Test

Ranks

	VAR00010	N	Mean Rank	Sum of Ranks
VAR00009	1	4	6.50	26.00
	6	4	2.50	10.00
	Total	8		

Test Statistics^b

	VAR00009
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00010

```
NPAR TESTS /M-W= VAR00011 BY VAR00012(2 3)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00011	8	10.269500	.5951912	9.6970	10.8820	9.708000	10.233500	10.848500
VAR00012	8	2.50	.535	2	3	2.00	2.50	3.00

Mann-Whitney Test

Ranks

VAR000	N	Mean Rank	Sum of Ranks
12			
VAR00011	2	4	10.00
	3	4	26.00
Total	8		

Test Statistics^b

	VAR00011
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00012

```
NPAR TESTS /M-W= VAR00013 BY VAR00014(2 4)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00013	8	10.521875	.8655263	9.6970	11.4220	9.708000	10.486000	11.367000
VAR00014	8	3.00	1.069	2	4	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	VAR000	N	Mean Rank	Sum of Ranks
	14			
VAR00013	2	4	2.50	10.00
	4	4	6.50	26.00
	Total	8		

Test Statistics^b

	VAR00013
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00014

```
NPAR TESTS /M-W= VAR00015 BY VAR00016(2 5)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00015	8	9.950625	.2531560	9.6970	10.2110	9.708000	9.951000	10.190250
VAR00016	8	3.50	1.604	2	5	2.00	3.50	5.00

Mann-Whitney Test

Ranks

VAR000	N	Mean Rank	Sum of Ranks
16			
VAR00015	2	2.50	10.00
	5	6.50	26.00
Total	8		

Test Statistics^b

	VAR00015
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00016

```
NPAR TESTS /M-W= VAR00017 BY VAR00018(2 6)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00017	8	9.755500	.0611018	9.6970	9.8460	9.706250	9.727000	9.818500
VAR00018	8	4.00	2.138	2	6	2.00	4.00	6.00

Mann-Whitney Test

Ranks

	VAR000	N	Mean Rank	Sum of Ranks
	18			
VAR00017	2	4	3.25	13.00
	6	4	5.75	23.00
	Total	8		

Test Statistics^b

	VAR00017
Mann-Whitney U	3.000
Wilcoxon W	13.000
Z	-1.443
Asymp. Sig. (2-tailed)	.149
Exact Sig. [2*(1-tailed Sig.)]	.200 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00018

```
NPAR TESTS  /M-W= VAR00019 BY VAR00020(3 4)
/STATISTICS=DESCRIPTIVES QUANTILES  /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00019	8	11.076875	.2807782	10.7240	11.4220	10.843500	11.055500	11.367000
VAR00020	8	3.50	.535	3	4	3.00	3.50	4.00

Mann-Whitney Test

Ranks

	VAR000	N	Mean Rank	Sum of Ranks
	20			
VAR00019	3	4	2.50	10.00
	4	4	6.50	26.00
	Total	8		

Test Statistics^b

	VAR00019
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00020

```
NPAR TESTS /M-W= VAR00021 BY VAR00022(3 5)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00021	8	10.505625	.3441802	10.1590	10.8820	10.186750	10.467500	10.848500
VAR00022	8	4.00	1.069	3	5	3.00	4.00	5.00

Mann-Whitney Test

Ranks

VAR000	N	Mean Rank	Sum of Ranks
22			
VAR00021	3	6.50	26.00
	5	2.50	10.00
Total	8		

Test Statistics^b

	VAR00021
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00022

```
NPAR TESTS /M-W= VAR00023 BY VAR00024(3 6)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00023	8	10.310500	.5528430	9.7060	10.8820	9.815500	10.285000	10.848500
VAR00024	8	4.50	1.604	3	6	3.00	4.50	6.00

Mann-Whitney Test

Ranks

VAR000	N	Mean Rank	Sum of Ranks
24			
VAR00023	3	6.50	26.00
	6	2.50	10.00
Total	8		

Test Statistics^b

	VAR00023
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00024

```
NPAR TESTS /M-W= VAR00025 BY VAR00026(4 5)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00025	8	10.758000	.6141114	10.1590	11.4220	10.186750	10.720000	11.367000
VAR00026	8	4.50	.535	4	5	4.00	4.50	5.00

Mann-Whitney Test

Ranks

VAR000	N	Mean Rank	Sum of Ranks
26			
VAR00025	4	6.50	26.00
	5	2.50	10.00
Total	8		

Test Statistics^b

	VAR00025
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00026

```
NPAR TESTS /M-W= VAR00027 BY VAR00028(4 6)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00027	8	10.562875	.8227196	9.7060	11.4220	9.815500	10.537500	11.367000
VAR00028	8	5.00	1.069	4	6	4.00	5.00	6.00

Mann-Whitney Test

Ranks

	VAR000	N	Mean Rank	Sum of Ranks
	28			
VAR00027	4	4	6.50	26.00
	6	4	2.50	10.00
	Total	8		

Test Statistics^b

	VAR00027
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: VAR00028

```
NPAR TESTS /M-W= VAR00029 BY VAR00030(5 6)
/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.
```

NPar Tests

[DataSet1] E:\mannwitdney data.sav

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
VAR00029	8	9.991625	.2129647	9.7060	10.2110	9.815500	10.002500	10.190250
VAR00030	8	5.50	.535	5	6	5.00	5.50	6.00

Mann-Whitney Test

Ranks

	VAR000	N	Mean Rank	Sum of Ranks
	30			
VAR00029	5	4	6.50	26.00
	6	4	2.50	10.00
	Total	8		

Test Statistics^b

	VAR00029
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

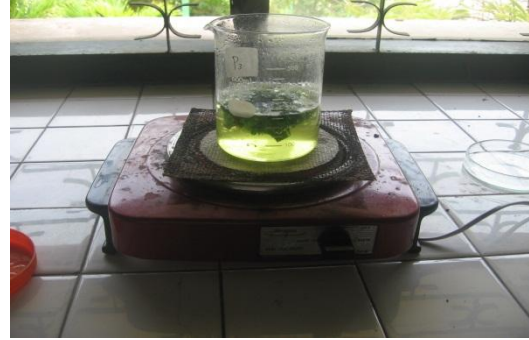
b. Grouping Variable: VAR00030

BUKTI DOKUMENTASI

Gambar Persiapan Pemeriksaan Sampel



Brokoli setelah penimbangan



Perebusan brokoli sesuai perlakuan



Penumbukan brokoli setelah direbus



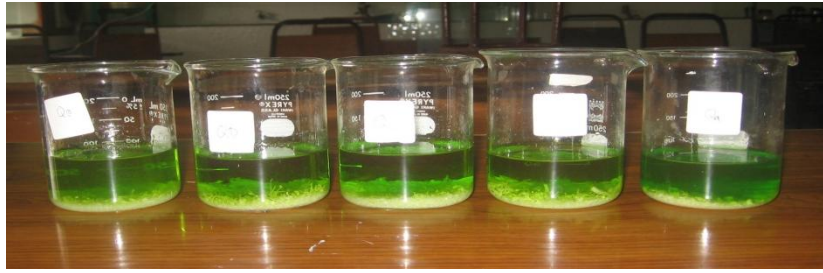
Penimbangan brokoli setelah direbus



Brokoli siap diextraksi



Pengextraksian Brokoli



Brokoli setelah diextraksi



Penyaringan Extraks Brokoli



Hasil extraks brokoli

Gambar Pemeriksaan Sampel



Alat Spektrofotometer



Sampel siap diperiksa



Pemeriksaan Kadar Klorofil Brokoli



UNIVERSITAS MUHAMMADIYAH SURABAYA
FAKULTAS ILMU KESEHATAN

Program Studi : Keperawatan S1 dan D3 - Analis Kesehatan D3 - Kebidanan D3
Jln. Sutorejo No. 59 Surabaya - 60113, Telp. (031) 3811966 - 3811967, 3890175 Fax. (031) 3811967

Nomor : 002/II.3.AU/F/FIK/20145
Lampiran : -
Perihal : Permohonan ijin Pengambilan data awal

Kepada Yth.
Kepala Lab. Universitas Negri Surabaya
Di Tempat

Assalamu'alaikum Wr. Wb.

Dalam rangka menyelesaikan tugas akhir berupa Karya Tulis Ilmiah (KTI), Mahasiswa Program Studi D3 Analis Kesehatan Fakultas Ilmu Kesehatan Universitas Muhammadiyah Surabaya tahun akademik 2014/2015, atas nama mahasiswa :

Nama : **UYUN CAHYAWATI**
NIM : 20120662094
Judul KTI : efektifitas pemberian garam dapur terhadap kadar klorofil pada sayur brokoli hijau (*Brassica Oleracea L*) selama proses perebusan

Bermaksud untuk mengambil data / observasi di **Lab. Biologi Fak. Matematika dan Ilmu pengetahuan Alam (FMIPA) Universitas Negri Surabaya**. Sehubungan dengan hal tersebut kami mohon dengan hormat agar Bapak / Ibu berkenan memberikan ijin pengambilan data / Observasi yang dimaksud. Demikian permohonan ijin, atas perhatian dan kerjasama yang baik kami sampaikan terima kasih.

Wassalamu'alaikum Wr. Wb.

Surabaya, 2 Januari 2015

Dekan,



Nr. Mukarromah, SKM, M. Kes
HP: 08129721122



**Hasil Pengukuran Absorbansi Klorofil Brokoli Pada
Berbagai Perlakuan Dengan Dua Panjang Gelombang yang
Berbeda Menggunakan Spektrofotometer UV Vis MAPADA**

Sampel	$\lambda=649$ nm (A)	$\lambda=665$ nm (A)
Oa	1. 0,557	1. 0,980
	2. 0,554	2. 0,979
	3. 0,558	3. 0,979
	4. 0,566	4. 0,974
Ob	1. 0,305	1. 0,592
	2. 0,306	2. 0,588
	3. 0,306	3. 0,594
	4. 0,304	4. 0,593
Oc	1. 0,341	1. 0,640
	2. 0,349	2. 0,633
	3. 0,348	3. 0,638
	4. 0,348	4. 0,643
Od	1. 0,365	1. 0,650
	2. 0,367	2. 0,651
	3. 0,362	3. 0,654
	4. 0,371	4. 0,656
Oe	1. 0,319	1. 0,625
	2. 0,318	2. 0,627
	3. 0,317	3. 0,626
	4. 0,319	4. 0,628
Of	1. 0,308	1. 0,599
	2. 0,302	2. 0,601
	3. 0,309	3. 0,601
	4. 0,308	4. 0,600

Surabaya, 06 Januari 2015
Kepala Laboratorium



Dra. Isnawati, M.Si
NIP 19671122 1992032002



AKADEMI ANALIS KESEHATAN
UNIVERSITAS MUHAMMADIYAH SURABAYA
Jl. Sutorejo No. 59 Surabaya Telp. 031-3890175



KARTU BIMBINGAN KTI

NAMA
NIM / NPM
JUDUL KTI

Uyun Cahyawati
201206620099
Efektivitas pemberian Garam Dapur
Terhadap kadar Klorofil pada Sayur
Protokoli (*Brassica oleracea* L) selama
proses perebusan

DOSEN PEMBIMBING:

NO	Tgl/Bln/ Thn	MATERI BIMBINGAN	PARAF		
			Mhs	Pembimbing	
				I	II
1.	14/11/2014	Pengajuan Judul			
2.	19/11/2014	ACC Judul			
3.	28/11/2014	Bab I dan Matriks			
4.	04/12/2014	ACC Bab I			
5.	16/12/2014	BAB III			
6.	20/12/2014	ACC BAB III			
7.	24/12/2014	BAB II			
8.	05/01/2015	ACC BAB II			
9.	18/02/2015	BAB IV			
10.	24/03/2015	ACC BAB IV			
11.	30/03/2015	ACC BAB IV & BAB V			

Pinstatan

Ketua Program Study

Dra. Lina Listiana, M.Kes