

LAMPIRAN

Lampiran 1. Sertifikat Bakteri *staphylococcus aureus*



UNIVERSITAS GADJAH MADA
PUSAT STUDI PANGAN DAN GIZI

SERTIFIKAT MIKROBIA
 FNCC-PSPG/66/VIII/2016

Staphylococcus aureus FNCC 0047

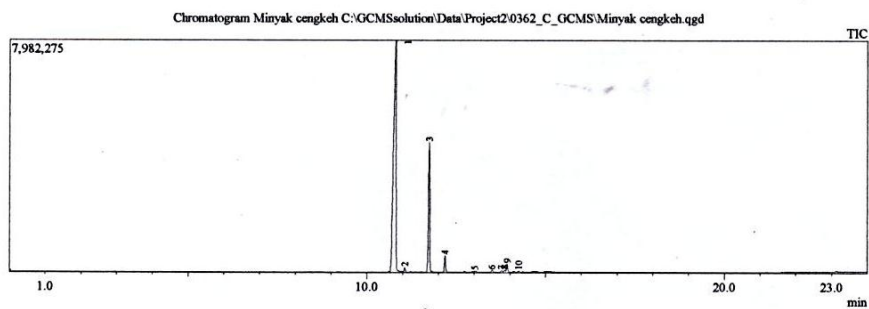
Bentuk sel	: Bulat/ coccus
Pengecatan gram	: Positif
Susunan sel	: Berkelompok
Kebutuhan oksigen	: aerob
Motilitas	: Tidak motil (tidak bergerak)
Pembentukan Spora	: Tidak (negatif)
Katalase	: Positif
Tes koagulase	: Positif
pH optimum	: 7
Suhu Optimum	: 37°C
Pathologi	: Pathogen

Yogyakarta, 23 Agustus 2016
 Kurator FNCC


 Prof. Dr. Ir. Endang S. Rahayu

Lampiran 2. Hasil Uji GC-MS Minyak Atsiri Daun Cengkeh

Sample Information
 Analyzed by : Admin
 Analyzed : 6/24/2016 2:41:47 PM
 Sample Name : Minyak cengkeh
 Sample ID :
 Injection Volume : 0.10
 Data File : C:\GCMSolution\Data\Project2\0362_C_GCMS\Minyak cengkeh.qgd
 Tuning File : C:\GCMSolution\System\Tune1\Tuning 10052016.qgt

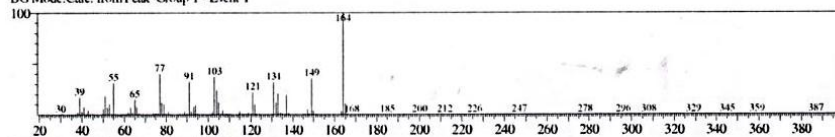


Peak#	R.Time	I.Time	F.Time	Area	Area%	Height
1	10.804	10.650	10.958	40003194	74.80	7954424
2	11.063	10.958	11.117	353220	0.66	148655
3	11.741	11.667	11.800	10605239	19.83	4448754
4	12.186	12.133	12.258	1210793	2.26	557582
5	13.017	12.983	13.100	83124	0.16	29070
6	13.502	13.458	13.558	148762	0.28	59441
7	13.772	13.725	13.817	148297	0.28	52375
8	13.854	13.817	13.883	175739	0.33	66291
9	13.926	13.883	13.983	663685	1.24	283689
10	14.250	14.158	14.300	87317	0.16	35824
				53479370	100.00	13636105

Library

<< Target >>

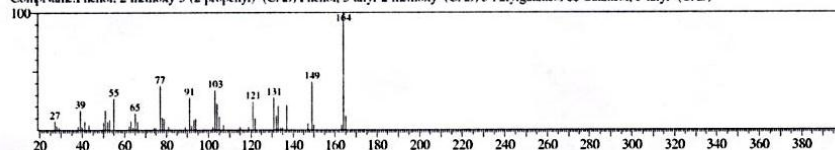
Line#:1 R.Time:10.800;Scan#:1297; MassPeaks:273
 RawMode:Averaged 10.792-10.808(1296-1298) BasePeak:163.95(1152684)
 BG Mode:Calc. from Peak Group 1 - Event 1



Hit#1 Entry:52834 Library:WILEY7.LIB

SI:98 Formula:C10 H12 O2 CAS:1941-12-4 MolWeight:164 RetIndex:0

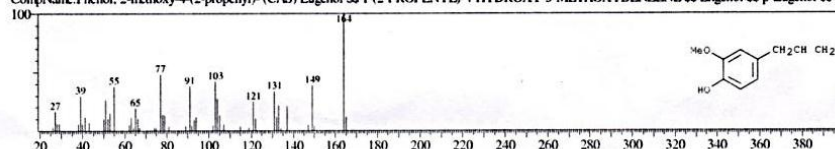
CompName:Phenol, 2-methoxy-3-(2-propenyl)- (CAS) Phenol, 3-allyl-2-methoxy- (CAS) 3-Allylguaiacol \$\$ Guaiacol, 3-allyl- (CAS)



Hit#2 Entry:53660 Library:WILEY7.LIB

SI:95 Formula:C10 H12 O2 CAS:97-53-0 MolWeight:164 RetIndex:0

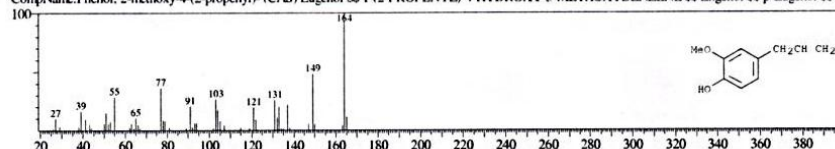
CompName:Phenol, 2-methoxy-4-(2-propenyl)- (CAS) Eugenol \$\$ 1-(2-PROPENYL)-4-HYDROXY-3-METHOXYBENZENE \$\$ Eugenol \$\$ p-Eugenol \$\$ E



Hit#3 Entry:53661 Library:WILEY7.LIB

SI:95 Formula:C10 H12 O2 CAS:97-53-0 MolWeight:164 RetIndex:0

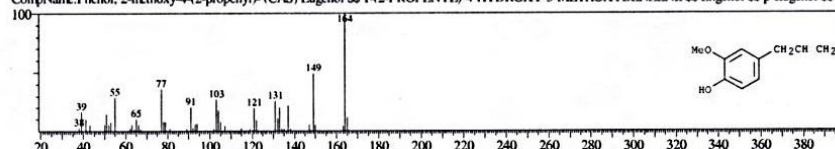
CompName:Phenol, 2-methoxy-4-(2-propenyl)- (CAS) Eugenol \$\$ 1-(2-PROPENYL)-4-HYDROXY-3-METHOXYBENZENE \$\$ Eugenol \$\$ p-Eugenol \$\$ E



Hit#4 Entry:53659 Library:WILEY7.LIB

SI:95 Formula:C10 H12 O2 CAS:97-53-0 MolWeight:164 RetIndex:0

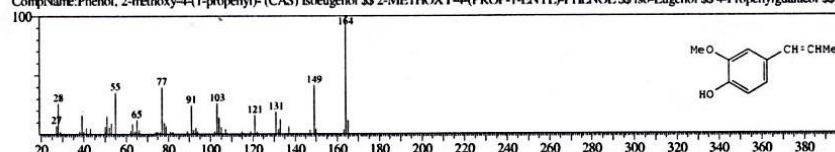
CompName:Phenol, 2-methoxy-4-(2-propenyl)- (CAS) Eugenol \$\$ 1-(2-PROPENYL)-4-HYDROXY-3-METHOXYBENZENE \$\$ Eugenol \$\$ p-Eugenol \$\$ E



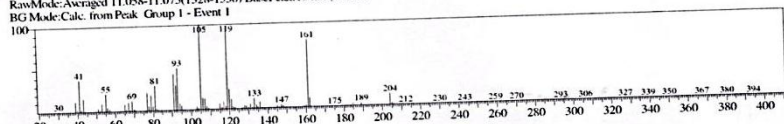
Hit#5 Entry:53650 Library:WILEY7.LIB

SI:93 Formula:C10 H12 O2 CAS:97-54-1 MolWeight:164 RetIndex:0

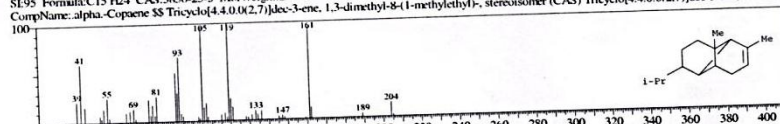
CompName:Phenol, 2-methoxy-4-(1-propenyl)- (CAS) Isoeugenol \$\$ 2-METHOXY-4-(PROP-1-ENYL)-PHENOL \$\$ iso-Eugenol \$\$ 4-Propenylguaiacol \$\$ 2-



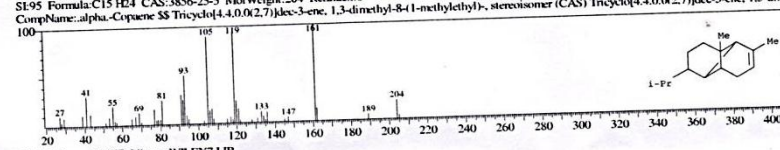
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 Line#2 R Time:11.067(Scan#:1329) MassPeaks:242
 RawMode:Averaged 11.058-11.075(1328-1330) BasePeak:104.95(15126)
 BG Mode:Calc. from Peak Group 1 - Event 1



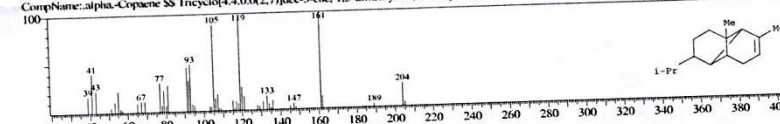
Hit#1 Entry:101060 Library:WILEY7.LIB
 SI:95 Formula:C15 H24 CAS:3856-25-5 MolWeight:204 RetIndex:0
 CompName:alpha-Copaene SS Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dimethyl-8-(1-methylethyl)-, stereoisomer (CAS) Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dime



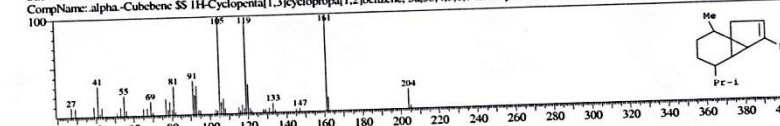
Hit#2 Entry:101056 Library:WILEY7.LIB
 SI:95 Formula:C15 H24 CAS:3856-25-5 MolWeight:204 RetIndex:0
 CompName:alpha-Copaene SS Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dimethyl-8-(1-methylethyl)-, stereoisomer (CAS) Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dime



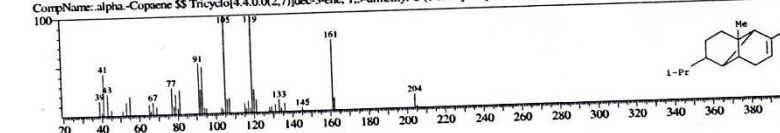
Hit#3 Entry:101057 Library:WILEY7.LIB
 SI:95 Formula:C15 H24 CAS:3856-25-5 MolWeight:204 RetIndex:0
 CompName:alpha-Copaene SS Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dimethyl-8-(1-methylethyl)-, stereoisomer (CAS) Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dime



Hit#4 Entry:101065 Library:WILEY7.LIB
 SI:94 Formula:C15 H24 CAS:17699-14-8 MolWeight:204 RetIndex:0
 CompName:alpha-Cubebene SS 1H-Cyclopenta[1,3]cyclopropa[1,2]benzene, 3a,3b,4,5,6,7-hexahydro-3,7-dimethyl-4-(1-methylethyl)-, [3aS-(3a.alpha.,3b.beta.)

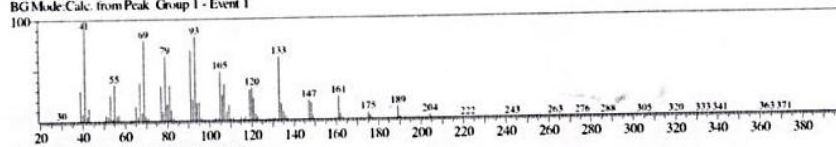


Hit#5 Entry:101061 Library:WILEY7.LIB
 SI:94 Formula:C15 H24 CAS:3856-25-5 MolWeight:204 RetIndex:0
 CompName:alpha-Copaene SS Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dimethyl-8-(1-methylethyl)-, stereoisomer (CAS) Tricyclo[4.4.0.0(2,7)]dec-3-ene, 1,3-dime



<< Target >>

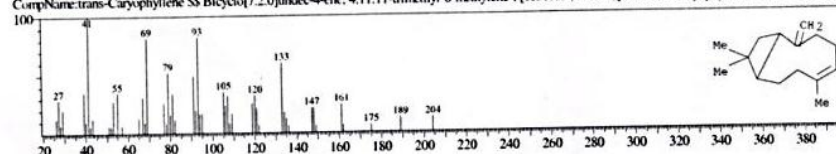
Line# 3 R.Time: 11.742; Scan#: 1410; MassPeak: 258
 RawMs: Averaged 11.733-11.750; 1409-1411; BasePeak: 40.95; 320877)
 BG Mode Calc. from Peak Group 1 - Event 1



Hit# 1 Entry: 100774 Library: WILEY7.LIB

SI: 96 Formula: C15 H24 CAS: 87-44-5 MolWeight: 204 RetIndex: 0

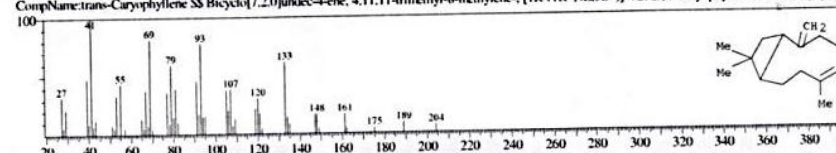
CompName: trans-Caryophyllene SS Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1R-(1R*,4E,9S*)]- (CAS) 1-Caryophyllene SS (-)-Caryophyll



Hit# 2 Entry: 100781 Library: WILEY7.LIB

SI: 96 Formula: C15 H24 CAS: 87-44-5 MolWeight: 204 RetIndex: 0

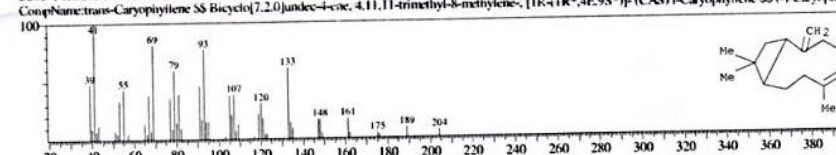
CompName: trans-Caryophyllene SS Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1R-(1R*,4E,9S*)]- (CAS) 1-Caryophyllene SS (-)-Caryophyll



Hit# 3 Entry: 100792 Library: WILEY7.LIB

SI: 96 Formula: C15 H24 CAS: 87-44-5 MolWeight: 204 RetIndex: 0

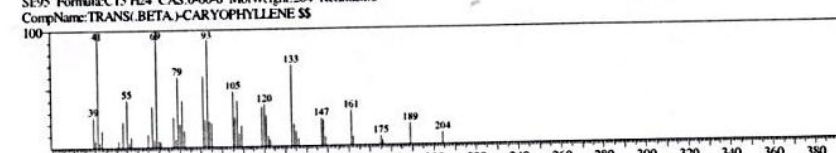
CompName: trans-Caryophyllene SS Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1R-(1R*,4E,9S*)]- (CAS) 1-Caryophyllene SS (-)-Caryophyll



Hit# 4 Entry: 100327 Library: WILEY7.LIB

SI: 95 Formula: C15 H24 CAS: 0-00-0 MolWeight: 204 RetIndex: 0

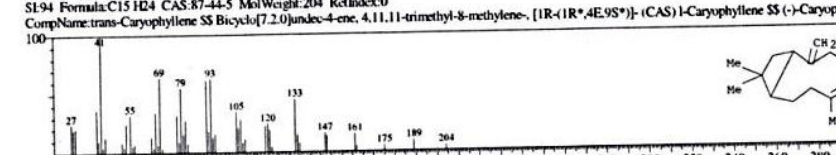
CompName: TRANS-(BETA)-CARYOPHYLLENE SS



Hit# 5 Entry: 100788 Library: WILEY7.LIB

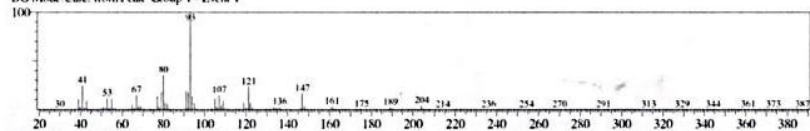
SI: 94 Formula: C15 H24 CAS: 87-44-5 MolWeight: 204 RetIndex: 0

CompName: trans-Caryophyllene SS Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1R-(1R*,4E,9S*)]- (CAS) 1-Caryophyllene SS (-)-Caryophyll



<< Target >>

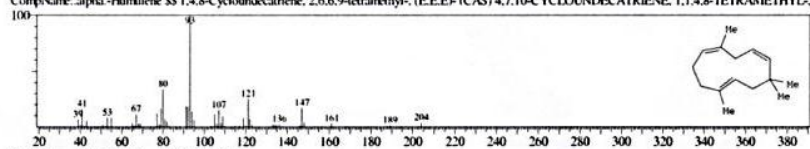
Line# 4 R-Time: 12.183 (Scan# 1463) MassPeaks: 226
 RawMode: Averaged 12.175-12.192 (1462-1464) BasePeak: 92.95 (102193)
 BG Mode: Calc. from Peak Group 1 - Event 1



Hit# 1 Entry: 100734 Library: WILEY7.LIB

SI: 97 Formula: C15 H24 CAS: 6753-98-6 MolWeight: 204 RetIndex: 0

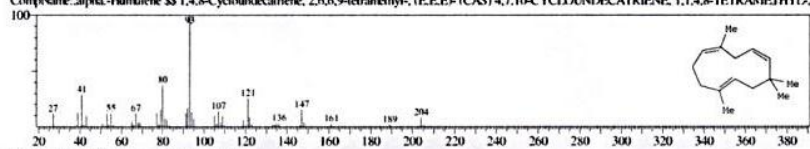
CompName: alpha-Humulene SS 1,4,8-Cycloundecatriene, 2,6,6,9-tetramethyl-, (E,E,E)- (CAS) 4,7,10-CYCLOUNDECATRIENE, 1,1,4,8-TETRAMETHYL-



Hit# 2 Entry: 100736 Library: WILEY7.LIB

SI: 97 Formula: C15 H24 CAS: 6753-98-6 MolWeight: 204 RetIndex: 0

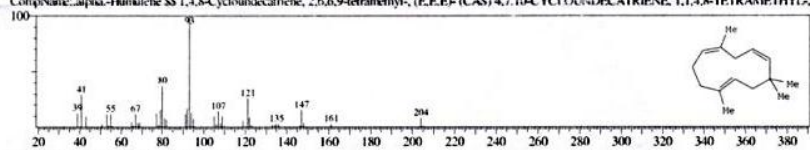
CompName: alpha-Humulene SS 1,4,8-Cycloundecatriene, 2,6,6,9-tetramethyl-, (E,E,E)- (CAS) 4,7,10-CYCLOUNDECATRIENE, 1,1,4,8-TETRAMETHYL-



Hit# 3 Entry: 100745 Library: WILEY7.LIB

SI: 96 Formula: C15 H24 CAS: 6753-98-6 MolWeight: 204 RetIndex: 0

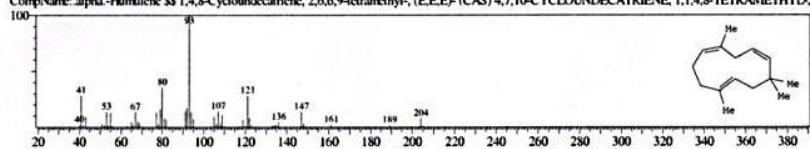
CompName: alpha-Humulene SS 1,4,8-Cycloundecatriene, 2,6,6,9-tetramethyl-, (E,E,E)- (CAS) 4,7,10-CYCLOUNDECATRIENE, 1,1,4,8-TETRAMETHYL-



Hit# 4 Entry: 100739 Library: WILEY7.LIB

SI: 96 Formula: C15 H24 CAS: 6753-98-6 MolWeight: 204 RetIndex: 0

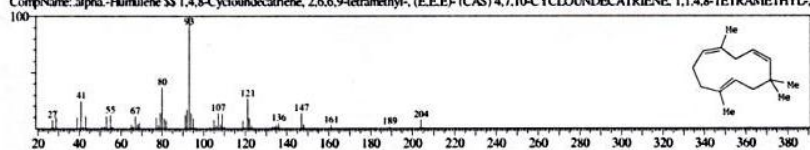
CompName: alpha-Humulene SS 1,4,8-Cycloundecatriene, 2,6,6,9-tetramethyl-, (E,E,E)- (CAS) 4,7,10-CYCLOUNDECATRIENE, 1,1,4,8-TETRAMETHYL-



Hit# 5 Entry: 100740 Library: WILEY7.LIB

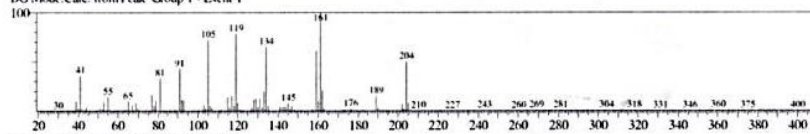
SI: 96 Formula: C15 H24 CAS: 6753-98-6 MolWeight: 204 RetIndex: 0

CompName: alpha-Humulene SS 1,4,8-Cycloundecatriene, 2,6,6,9-tetramethyl-, (E,E,E)- (CAS) 4,7,10-CYCLOUNDECATRIENE, 1,1,4,8-TETRAMETHYL-



<< Target >>

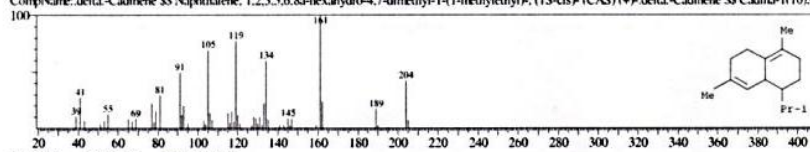
Line#5 R.Time:13.017(Scan#:1563) MassPeaks:230
 RawMode:Averaged 13.008-13.025(1562-1564) BasePeak:161.05(2916)
 BG Mode:Calc. from Peak Group 1 - Event 1



Hit#1 Entry:100891 Library:WILEY7.LIB

SI:92 Formula:C15 H24 CAS:483-76-1 MolWeight:204 RetIndex:0

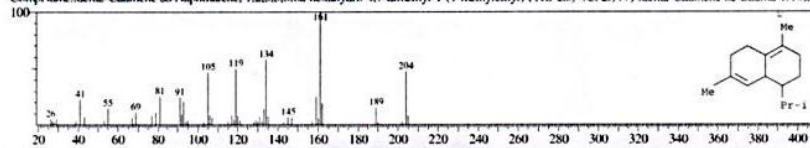
CompName:.delta.-Cadinene SS Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-cis)-(CAS)(+)-.delta.-Cadinene SS Cadina-1(10),4-



Hit#2 Entry:100893 Library:WILEY7.LIB

SI:88 Formula:C15 H24 CAS:483-76-1 MolWeight:204 RetIndex:0

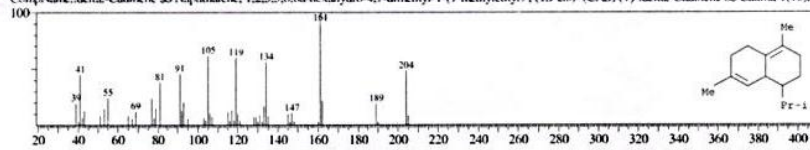
CompName:.delta.-Cadinene SS Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-cis)-(CAS)(+)-.delta.-Cadinene SS Cadina-1(10),4-



Hit#3 Entry:100888 Library:WILEY7.LIB

SI:87 Formula:C15 H24 CAS:483-76-1 MolWeight:204 RetIndex:0

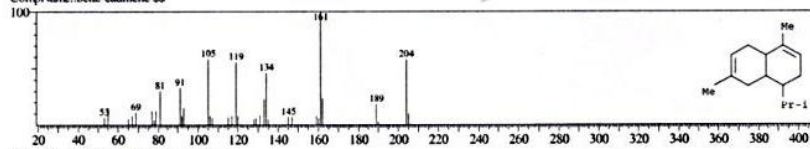
CompName:.delta.-Cadinene SS Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-cis)-(CAS)(+)-.delta.-Cadinene SS Cadina-1(10),4-



Hit#4 Entry:101110 Library:WILEY7.LIB

SI:87 Formula:C15 H24 CAS:523-47-7 MolWeight:204 RetIndex:0

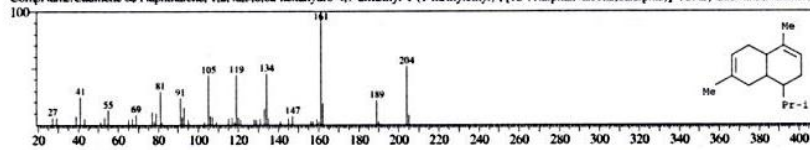
CompName:.beta.-cadinene SS



Hit#5 Entry:100877 Library:WILEY7.LIB

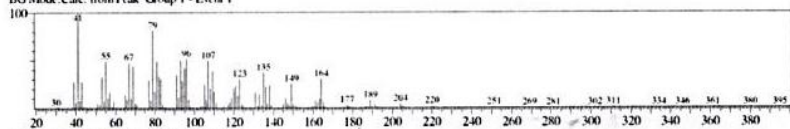
SI:86 Formula:C15 H24 CAS:523-47-7 MolWeight:204 RetIndex:0

CompName:Cadinene SS Naphthalene, 1,2,4a,5,8,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, [1S-(1.alpha.,4a.beta.,8a.alpha.)]- (CAS) Cadina-3,9-diene SS

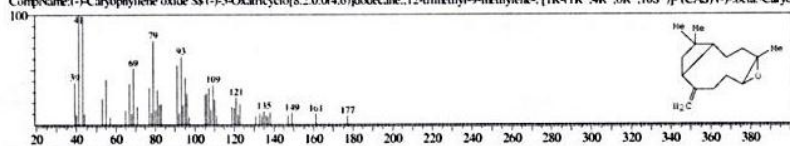


<< Target >>

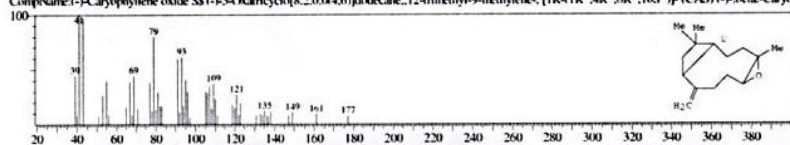
Line# 6 R Time: 13.500 Scan# 1621 MassPeaks: 245
 RawMode: Averaged 13.492-13.508 (1620-1622) BasePeak: 40.95 (3565)
 BG Mode: Calc. from Peak Group 1 - Event 1



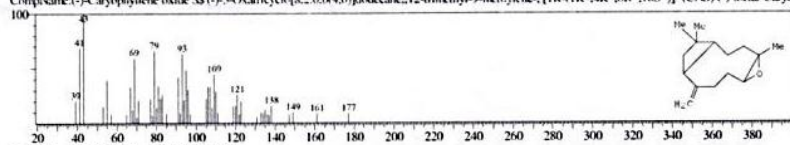
Hit# 1 Entry: 121056 Library: WILEY7.LIB
 SE86 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0.4.6]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



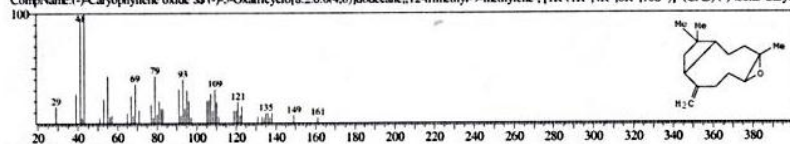
Hit# 2 Entry: 121059 Library: WILEY7.LIB
 SE85 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0.4.6]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



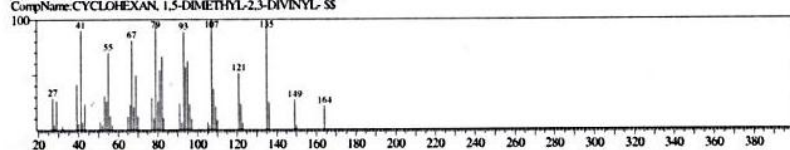
Hit# 3 Entry: 121059 Library: WILEY7.LIB
 SE84 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0.4.6]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



Hit# 4 Entry: 121058 Library: WILEY7.LIB
 SE83 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0.4.6]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo

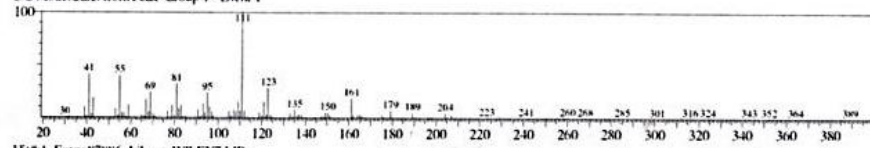


Hit# 5 Entry: 53351 Library: WILEY7.LIB
 SE83 Formula: C12 H20 CAS: 0-00-0 MolWeight: 164 RetIndex: 0
 CompName: CYCLOHEXAN, 1,5-DIMETHYL-2,3-DIVINYL- SS

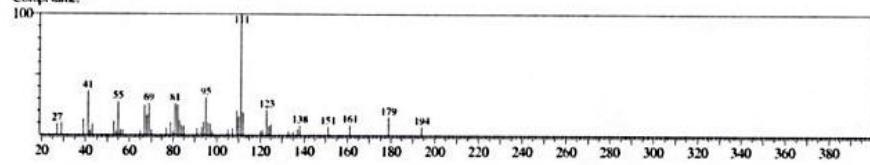


<< Target >>

Line# 7 R Time: 13.775(Scan#: 1654) MassPeaks: 235
RawMode: Averaged 13.767-13.783(1653-1655) BasePeak: 110.95(6158)
BG Mode: Calc. from Peak Group 1 - Event 1

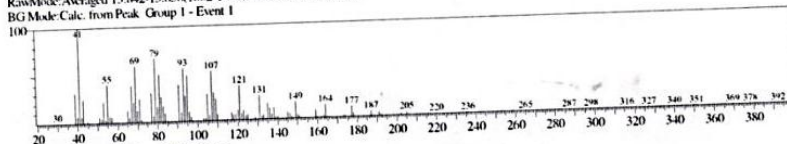


Hit# 1 Entry: 87886 Library: WILEY7.1 JB
SE84 Formula: C13 H22 O CAS: 0-00-0 MolWeight: 194 RefIndex: 0
CompName:

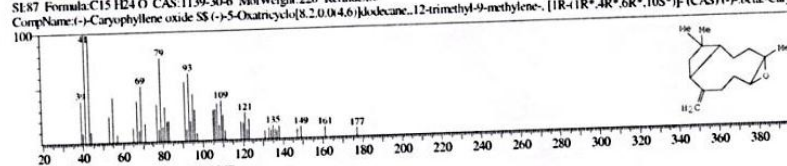


<< Target >>

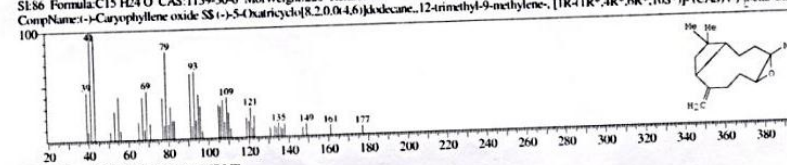
Line# 8 R-Time: 13.850 Scan#: 1663 MassPeaks: 207
 RawMode: Averaged 13.842-13.858 (1662-1664) BasePeak: 40.9003147
 BG Mode: Calc. from Peak Group 1 - Event 1



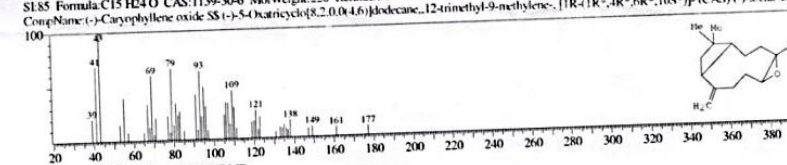
Hit# 1 Entry: 121056 Library: WILEY7.LIB
 SI: 87 Formula: C₁₅H₂₄O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



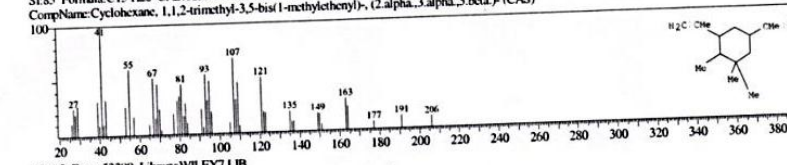
Hit# 2 Entry: 121057 Library: WILEY7.LIB
 SI: 86 Formula: C₁₅H₂₄O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



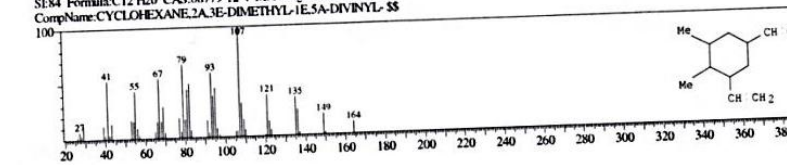
Hit# 3 Entry: 121059 Library: WILEY7.LIB
 SI: 85 Formula: C₁₅H₂₄O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0
 CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



Hit# 4 Entry: 103294 Library: WILEY7.LIB
 SI: 85 Formula: C₁₅H₂₆ CAS: 62337-96-6 MolWeight: 206 RetIndex: 0
 CompName: Cyclohexane, 1,1,2-trimethyl-3,5-bis(1-methylethyl)-, (2.alpha.,3.alpha.,5.beta.)-(CAS)

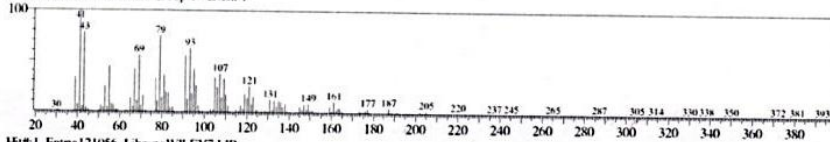


Hit# 5 Entry: 53299 Library: WILEY7.LIB
 SI: 84 Formula: C₁₂H₂₀ CAS: 68779-12-4 MolWeight: 164 RetIndex: 0
 CompName: CYCLOHEXANE,2,3,5-DIMETHYL-1,5-DIVINYL- SS



<< Target >>

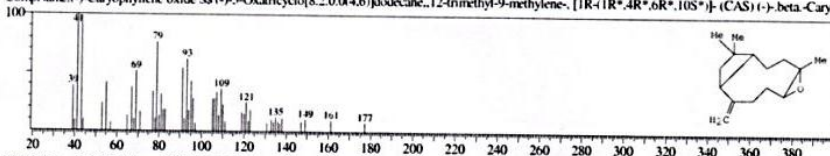
Line#9 R Time:13.925/Scan#:1672/ MassPeaks:234
 RawMode:Averaged 13.917-13.933(1671-1673) BasePeak:40.95(16793)
 BG Mode:Calc. from Peak Group 1 - Event 1



Hit#1 Entry:121056 Library:WILEY7.LIB

SE95 Formula:C15 H24 O CAS:1139-30-6 MolWeight:220 RetIndex:0

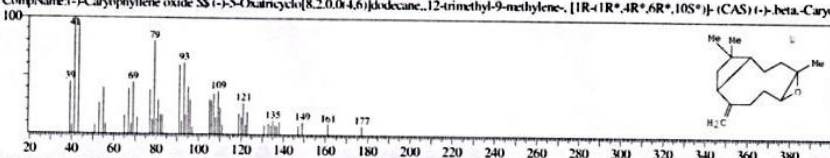
CompName:(-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



Hit#2 Entry:121057 Library:WILEY7.LIB

SE95 Formula:C15 H24 O CAS:1139-30-6 MolWeight:220 RetIndex:0

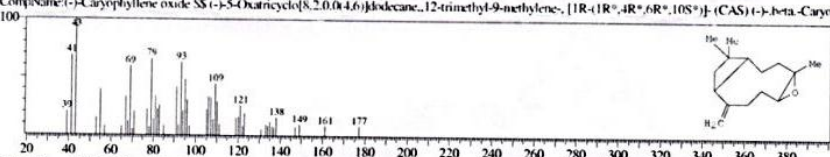
CompName:(-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



Hit#3 Entry:121059 Library:WILEY7.LIB

SE92 Formula:C15 H24 O CAS:1139-30-6 MolWeight:220 RetIndex:0

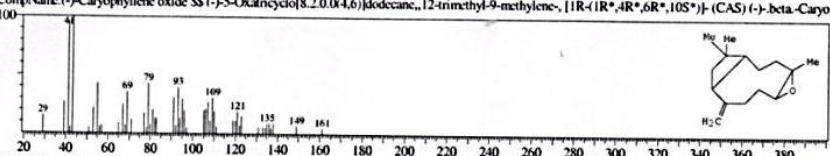
CompName:(-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



Hit#4 Entry:121058 Library:WILEY7.LIB

SE90 Formula:C15 H24 O CAS:1139-30-6 MolWeight:220 RetIndex:0

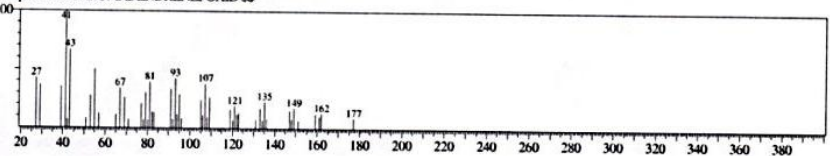
CompName:(-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (-)-beta-Caryo



Hit#5 Entry:120556 Library:WILEY7.LIB

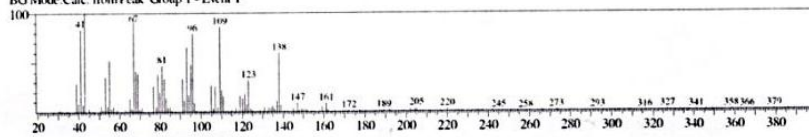
SE87 Formula:C15 H24 O CAS:0-00-0 MolWeight:220 RetIndex:0

CompName:ISOAROMADENDRENEPOXID SS



<< Target >>

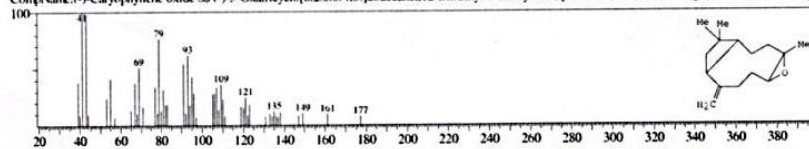
Line# 10 R Time: 14.250 Scan#: 1711 Mass Peaks: 232
 Raw Mode: Averaged (14.242-14.258, 1710-1712) Base Peak: 42.90(2127)
 BG Mode: Calc. from Peak Group 1 - Event 1



Hit# 1 Entry: 121056 Library: WILEY7.LIB

SE85 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0

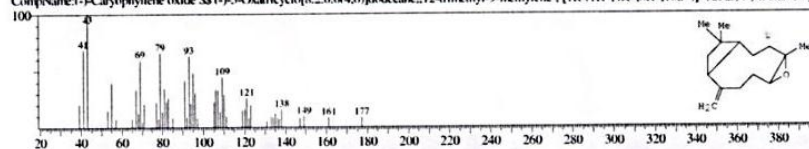
CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (+)-beta-Caryo



Hit# 2 Entry: 121059 Library: WILEY7.LIB

SE85 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0

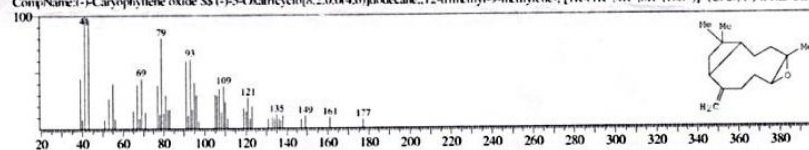
CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (+)-beta-Caryo



Hit# 3 Entry: 121057 Library: WILEY7.LIB

SE85 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0

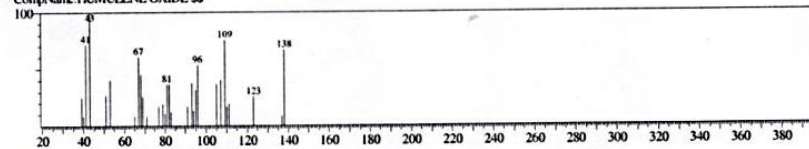
CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (+)-beta-Caryo



Hit# 4 Entry: 120452 Library: WILEY7.LIB

SE84 Formula: C15 H24 O CAS: 0-00-0 MolWeight: 220 RetIndex: 0

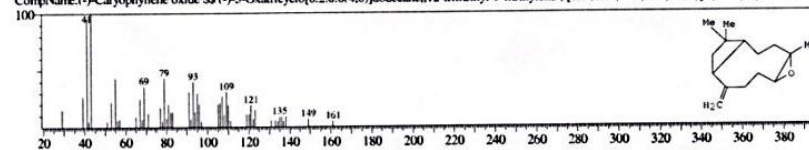
CompName: HUMULENE OXIDE SS



Hit# 5 Entry: 121058 Library: WILEY7.LIB

SE84 Formula: C15 H24 O CAS: 1139-30-6 MolWeight: 220 RetIndex: 0

CompName: (-)-Caryophyllene oxide SS (-)-5-Oxatricyclo[8.2.0.0(4,6)]dodecane, 12-trimethyl-9-methylene-, [1R-(1R*,4R*,6R*,10S*)]-(CAS) (+)-beta-Caryo



Lampiran 3. Data Hasil Uji Viskositas Selama 1 Bulan

Uji viskositas

Formula 1

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	1802 cp	1799 cp	1800 cp	1800.3± 1.527
Minggu ke 1	1598 cp	1596 cp	1606 cp	1600± 5.29
Minggu ke 2	1562 cp	1492 cp	1434.9 cp	1496.3± 63.6
Minggu ke 3	1191 cp	1109 cp	1300 cp	1200± 95.8
Minggu ke 4	909.3 cp	990.8 cp	800 cp	900± 95.73

Formula 2

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	1400.1 cp	908.3 cp	1273.6 cp	1194 ± 255.3
Minggu ke 1	900.91 cp	1000.2 cp	846.89 cp	916 ± 77.76
Minggu ke 2	925.61 cp	900.21 cp	1050.58 cp	958.8 ± 80.49
Minggu ke 3	998.3 cp	1006.9 cp	973.2 cp	992.8 ± 17.5
Minggu ke 4	886.91 cp	856.13 cp	743.96 cp	829 ± 75.23

Formula 3

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	1220.4 cp	1255 cp	1289.6 cp	1255 ± 34.6
Minggu ke 1	1017.2 cp	1000 cp	983.28 cp	1000.16± 16.96
Minggu ke 2	900 cp	898.4 cp	904 cp	900.8 ± 2.88
Minggu ke 3	800.4 cp	799.8 cp	802.8 cp	801 ± 1.587
Minggu ke 4	705.6 cp	710.4cp	714.9 cp	710.3 ± 4.65

Formula 4

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	1138.7cp	1136 cp	1135.1 cp	1136.6 ± 1.87
Minggu ke 1	800 cp	804.8 cp	804.38 cp	803 ± 2.65
Minggu ke 2	710.8 cp	708 cp	716 cp	711.6± 4
Minggu ke 3	635 cp	640 cp	630 cp	635± 5
Minggu ke 4	560.8 cp	559 cp	557.2 cp	559± 1.8

Lampiran 4. Data Hasil Uji Daya Sebar Selama 1 Bulan

Uji Daya Sebar

Formula 1

Minggu ke 0

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	2.3	2	2
50	2.4	2.3	2.3
100	2.6	2.4	2.4
200	2.9	2.5	2.5
300	3	2.5	2.7
500	3	2.7	2.8
1kg	3.3	3	3
Rata-rata± SD	2.6 ± 0.34		

Minggu ke 1

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	2.3	2.1	2.2
50	2.4	2.3	2.4
100	2.5	2.4	2.5
200	2.6	2.5	2.6
300	3	2.9	3
500	3.2	3	3.1
1kg	3.3	3.2	3.2
Rata-rata± SD	2.7± 0.38		

Minggu ke 2

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	2.5	2.5	2.4
50	2.6	2.6	2.6
100	2.7	2.8	2.7
200	3	3.5	3
300	3.3	3.7	3.5
500	3.5	3.9	4
1kg	4	4.1	4.3
Rata-rata± SD	3.2 ± 0.622		

Minggu ke 3

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	4.8	5	4.8
50	4.9	6	4.9
100	5.1	6.2	5.1
200	5.3	6.3	5.3
300	5.5	6.5	5.5
500	6	6.8	6
1kg	6.6	7	6.3
Rata-rata ± SD	5.7 ± 0.71		

Minggu ke 4

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	5.2	4	5.1
50	5.4	4.2	5.3
100	5.5	4.3	5.5
200	5.9	4.4	5.7
300	6.3	4.7	6.1
500	6.5	5.3	6.4
1kg	6.9	6	6.8
Rata-rata ± SD	5.5 ± 0.85		

Formula 2**Minggu ke 0**

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	3.5	3.5	3.9
50	4.1	4	4
100	4.2	4.3	4.2
200	4.3	4.5	4.3
300	4.4	4.6	4.4
500	4.7	5	5
1kg	5	5.2	5.3
Rata-rata ± SD	4.4 ± 0.5		

Minggu ke 1

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	4	4	4.2
50	4.1	4.2	4.3
100	4.5	4.3	4.5
200	4.7	4.4	4.7
300	5	4.5	4.9
500	5.1	4.8	5
1kg	5.4	5	5.2
Rata-rata ± SD	4.6 ± 0.41		

Minggu ke 2

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	5	5	5.2
50	5.2	5.1	5.3
100	5.4	5.3	5.4
200	5.5	5.3	5.5
300	5.6	5.4	5.5
500	5.9	5.6	5.8
1kg	6.4	6	6.1
Rata-rata ± SD	5.5 ± 0.36		

Minggu ke 3

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	4.3	4.5	4.5
50	4.5	4.7	4.8
100	4.6	4.8	5
200	4.8	4.9	5.2
300	5	5.2	5.3
500	5.3	5.3	5.5
1kg	5.7	5.5	5.9
Rata-rata ± SD	5 ± 0.43		

Minggu ke 4

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	5	5.5	5.1
50	5.1	5.5	5.3
100	5.2	5.6	5.4
200	5.4	5.7	5.5
300	5.4	5.9	5.7
500	5.6	6	6
1kg	6	6.3	6.3
Rata-rata ± SD	5.6 ± 0.37		

Formula 3**Minggu ke 0**

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	3.8	3.8	4
50	4	4	4.3
100	4.2	4	4.4
200	4.3	4.2	4.5
300	4.5	4.4	4.6
500	4.8	4.6	4.8
1kg	5.1	4.9	5.2
Rata-rata ± SD	4.4 ± 0.40		

Minggu ke 1

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	4	4	4.4
50	4.2	4.2	4.5
100	4.3	4.4	4.6
200	4.5	4.5	4.9
300	4.7	4.7	5
500	5	5	5.3
1 kg	5.4	5.4	5.7
Rata-rata ± SD	4.7 ± 0.47		

Minggu ke 2

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	4.5	4	4.4
50	4.6	4.2	4.5
100	5	4.5	4.7
200	5.3	4.7	4.9
300	5.6	4.9	5
500	6	5.2	5.5
1kg	6.3	5.9	6.1
Rata-rata ± SD	5.038± 0.653		

Minggu ke 3

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	4.9	5	5
50	5	5.1	5.1
100	5.2	5.2	5.3
200	5.4	5.3	5.4
300	5.5	5.4	5.5
500	5.7	5.6	5.8
1kg	6	5.9	6.1
Rata-rata ± SD	5.4 ± 0.347		

Minggu ke 4

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	5	5.5	5.1
50	5.1	5.5	5.4
100	5.3	5.8	5.7
200	5.5	5.9	5.8
300	5.6	6	6
500	6	6.3	6.3
1kg	6.4	6.9	6.7
Rata-rata ± SD	5.8 ± 0.51		

Formula 4
Minggu ke 0

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	5.4	5.9	5.7
50	5.5	6	5.9
100	5.8	6.2	6.1
200	6.1	6.4	6.3
300	6.2	6.5	6.5
500	6.8	6.7	6.8
1kg	7.1	7.2	7.2
Rata-rata ± SD	6.3 ± 0.52		

Minggu ke 1

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	6.5	6.3	6.5
50	6.7	6.5	6.7
100	6.8	6.6	6.8
200	6.9	6.7	6.9
300	7	6.8	7.1
500	7.5	7.4	7.3
1kg	8.1	8	8
Rata-rata ± SD	7 ± 0.52		

Minggu ke 2

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	6.9	7	7
50	7.3	7.1	7.3
100	7.4	7.3	7.4
200	7.6	7.4	7.5
300	7.9	7.6	7.7
500	8.1	7.9	7.7
1kg	8.8	8.5	8.2
Rata-rata ± SD	7.6 ± 0.49		

Minggu ke 3

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	6.3	6.3	6.5
50	6.5	6.5	6.7
100	6.7	6.7	6.9
200	7	6.8	7.1
300	7.1	6.9	7.2
500	7.8	7.3	7.5
1kg	8.5	8	8.2
Rata-rata ± SD	7 ± 0.61		

Minggu ke 4

	Replikasi 1	Replikasi 2	Replikasi 3
Kaca	7.1	7.2	7.1
50	7.4	7.4	7.2
100	7.6	7.5	7.5
200	7.9	7.7	7.7
300	8.2	7.8	7.8
500	8.9	8.6	8.4
1kg	9.9	9.6	9.5
Rata-rata ± SD	8 ± 0.84		

Lampiran 5. Data Hasil Uji Daya Lekat

Uji Daya Lekat

Formula 1

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	38	40	10.8	29.6 ± 16.31
Minggu ke 1	10.6	35.87	25.00	23.82 ± 12.67
Minggu ke 2	15.82	42.66	34.87	31.12 ± 13.81
Minggu ke 3	18	3.13	3.05	8.06 ± 8.61
Minggu ke 4	10	9	10	9.6 ± 0.57

Formula 2

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	4.38	6	4.12	4.8 ± 1.01
Minggu ke 1	7	5.22	5.48	5.9 ± 0.96
Minggu ke 2	5	5.39	7	5.79 ± 1.06
Minggu ke 3	8	5	2.35	5.12 ± 2.826
Minggu ke 4	7	5.02	2	4.67 ± 2.51

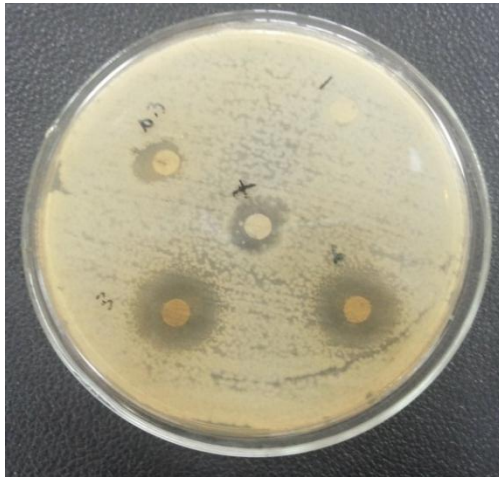
Formula 3

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	2.05	8	4	4.68 ± 3.03
Minggu ke 1	3.00	5.77	4.25	4.34 ± 1.387
Minggu ke 2	3.97	3.65	4,25	3.96 ± 0.3
Minggu ke 3	1.68	1.44	1.47	1.53 ± 0.13
Minggu ke 4	1.5	1.05	1.6	1.38 ± 0.29

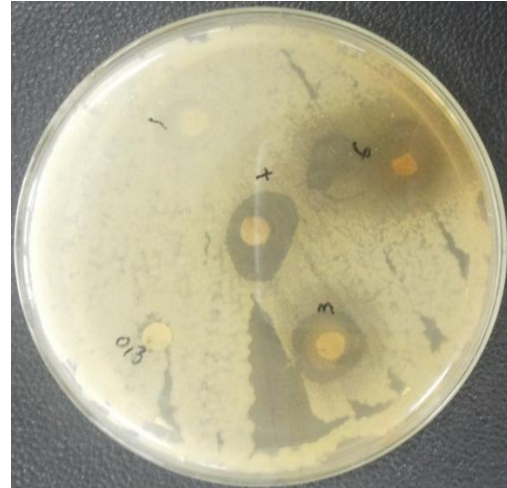
Formula 4

	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD
Minggu ke 0	2.90	5	3.36	3.75 ± 1.1
Minggu ke 1	3.30	2.00	3.76	3.02 ± 0.91
Minggu ke 2	2.6	2.8	2.7	2.7 ± 0.1
Minggu ke 3	2.18	3.09	4.01	3.09 ± 0.91
Minggu ke 4	2.20	4.03	3.00	3.07 ± 0.91

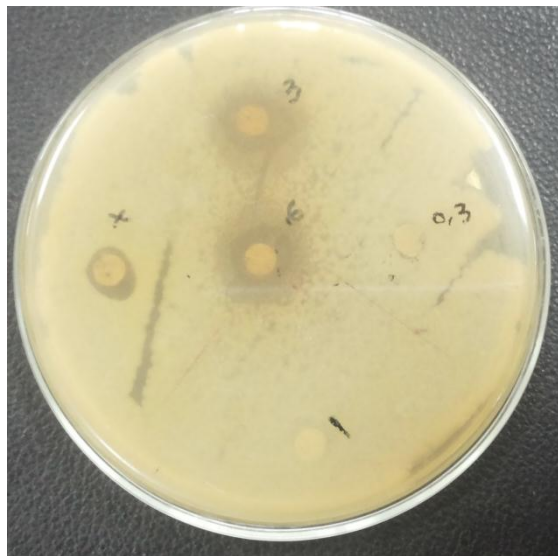
Lampiran 6. Foto Uji Daya Hambat dari Antiseptik Minyak Atsiri Daun Cengkeh



Gambar 10. Replikasi 1



Gambar 11. Replikasi 2



Gambar 12. Replikasi 3

Lampiran 7. Hasil Uji Normalisasi dan Uji Statistik Viskositas

1. Viskositas formula

Explore

formula

Case Processing Summary

formula		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
ujiviskositas	1	3	100.0%	0	.0%	3	100.0%
	2	3	100.0%	0	.0%	3	100.0%
	3	3	100.0%	0	.0%	3	100.0%
	4	3	100.0%	0	.0%	3	100.0%

Tests of Normality

formula		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
ujiviskositas	1	.253	3	.	.964	3	.637
	2	.288	3	.	.928	3	.480
	3	.175	3	.	1.000	3	1.000
	4	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

ujiviskositas

Stem-and-Leaf Plots

ujiviskositas Stem-and-Leaf Plot for
formula= 1

Frequency	Stem & Leaf
1.00	179 . 9
2.00	180 . 02

Stem width: 10.00
Each leaf: 1 case(s)

ujiviskositas Stem-and-Leaf Plot for
formula= 2

Frequency	Stem & Leaf
1.00	0 . 9
2.00	1 . 24

Stem width: 1000.00
Each leaf: 1 case(s)

ujiviskositas Stem-and-Leaf Plot for
formula= 3

Frequency	Stem & Leaf
1.00	12 . 2
2.00	12 . 58

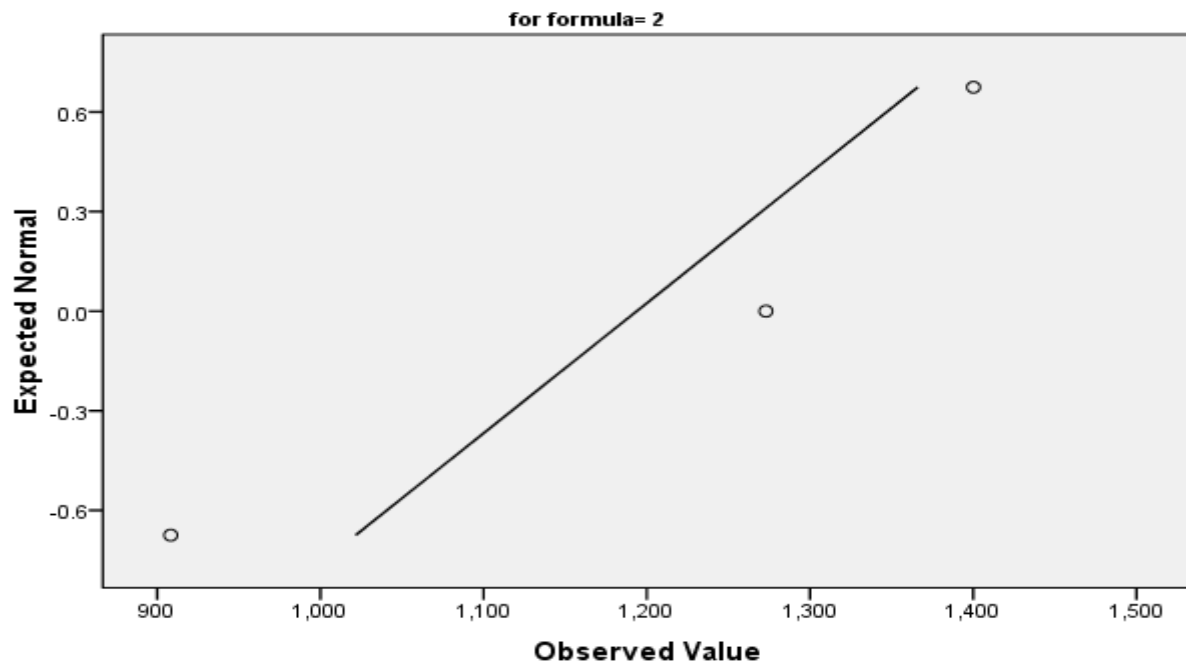
Stem width: 100.00
Each leaf: 1 case(s)

ujiviskositas Stem-and-Leaf Plot for
formula= 4

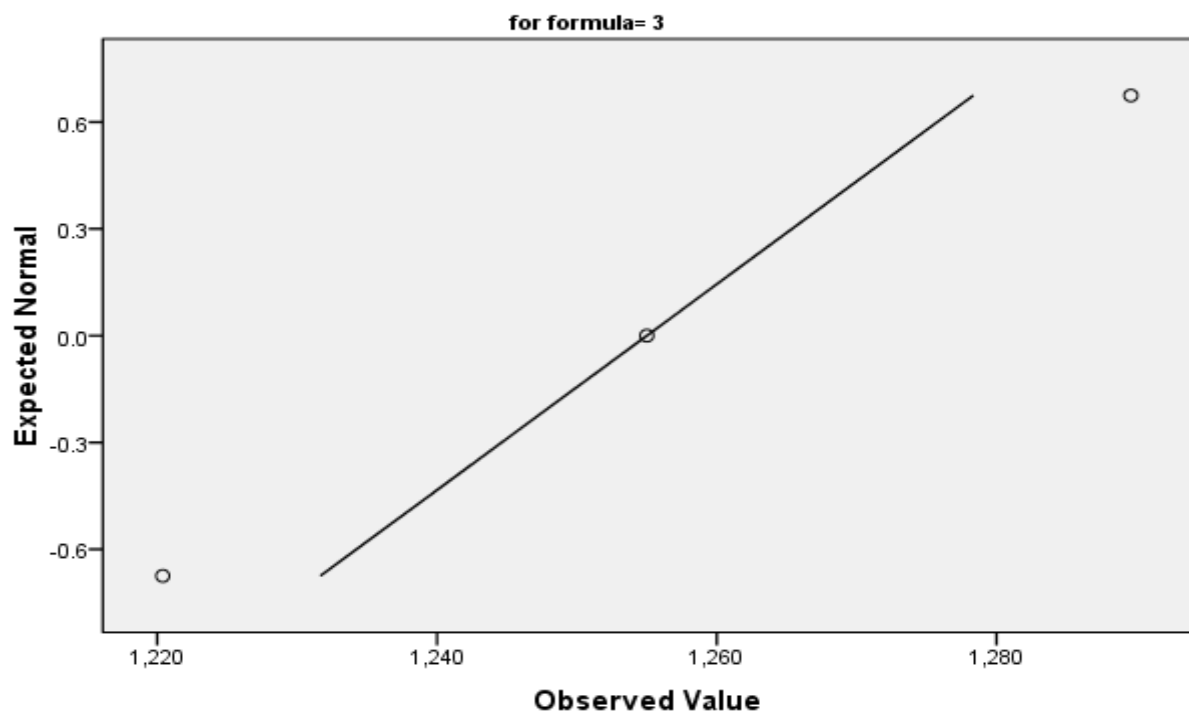
Frequency	Stem & Leaf
3.00	113 . 568

Stem width: 10.00
Each leaf: 1 case(s)

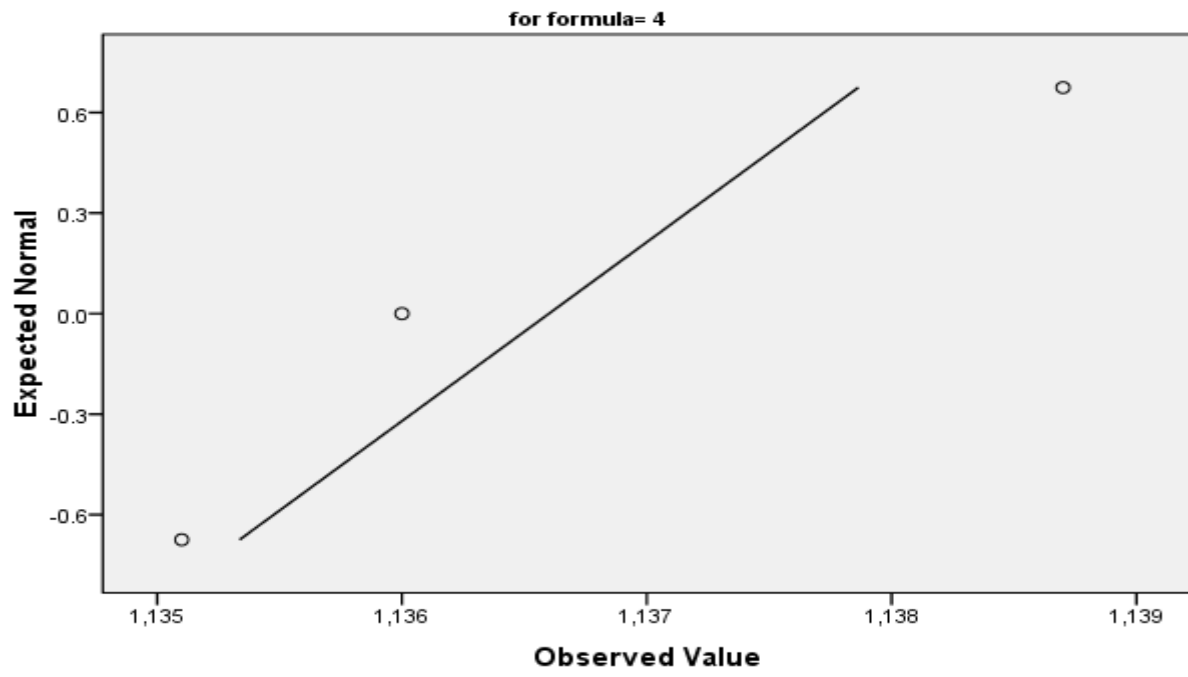
Normal Q-Q Plot of ujiviskositas



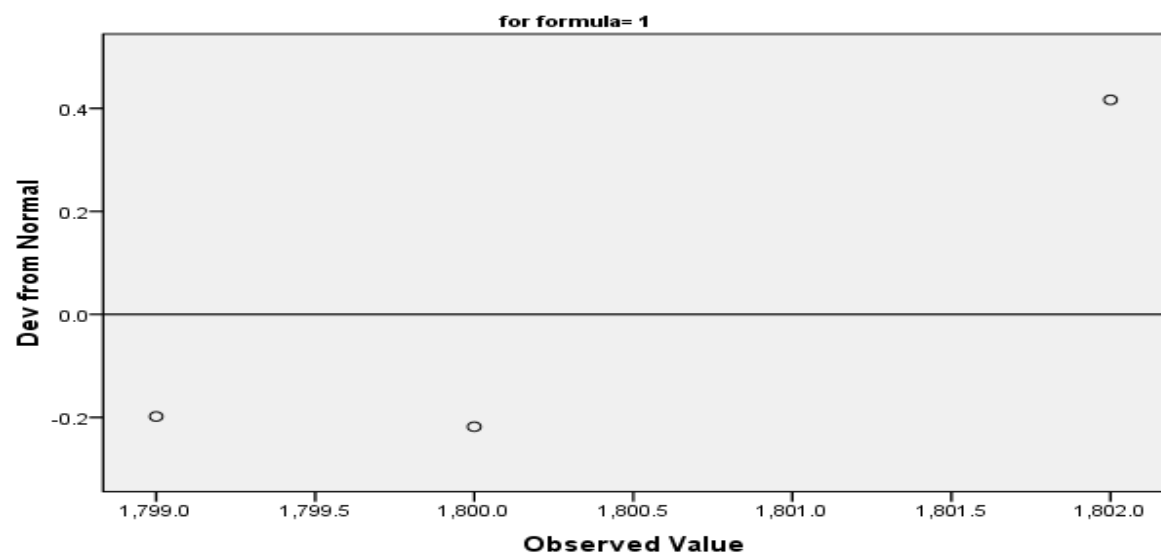
Normal Q-Q Plot of ujiviskositas

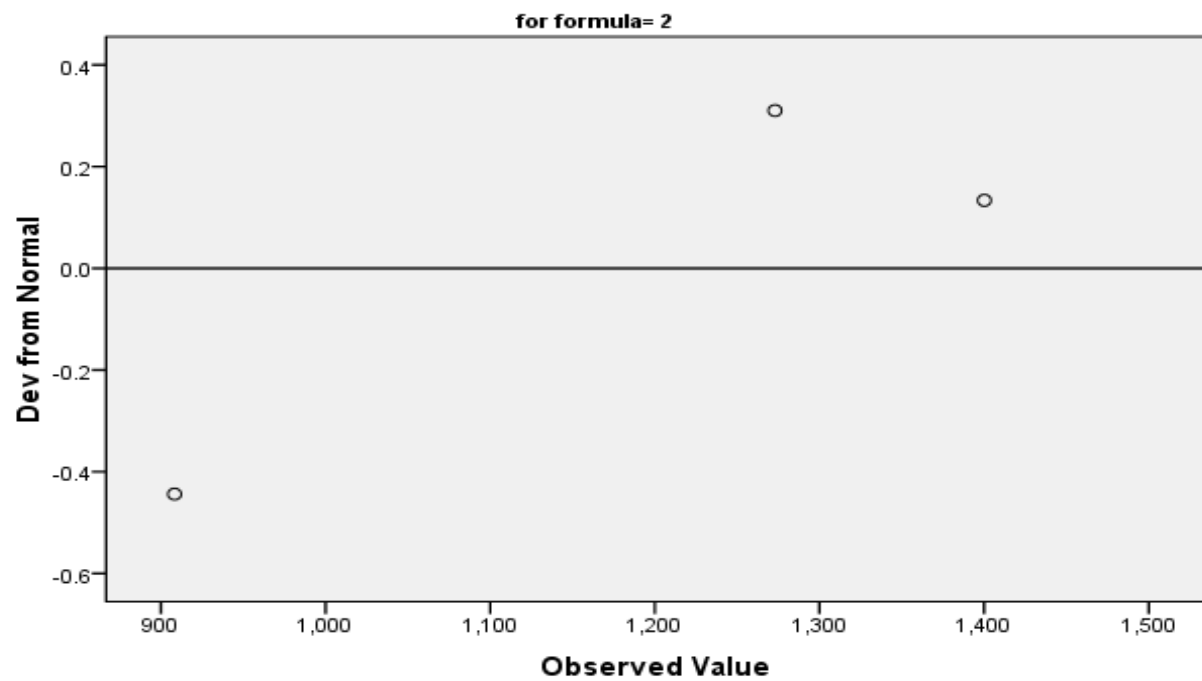
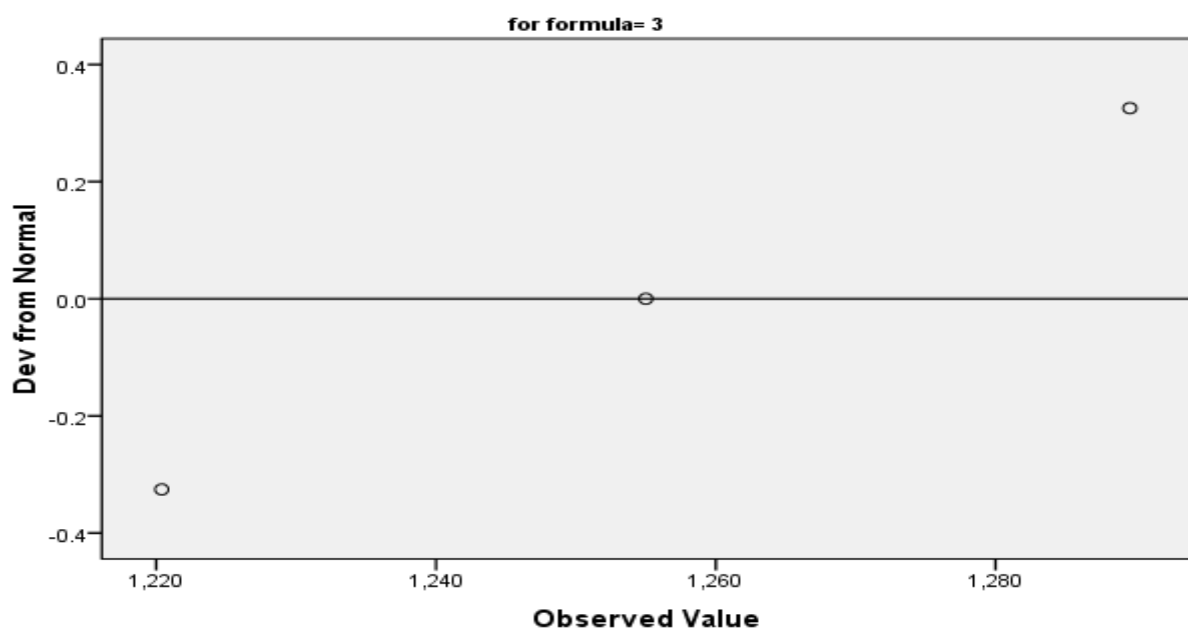


Normal Q-Q Plot of ujiviskositas

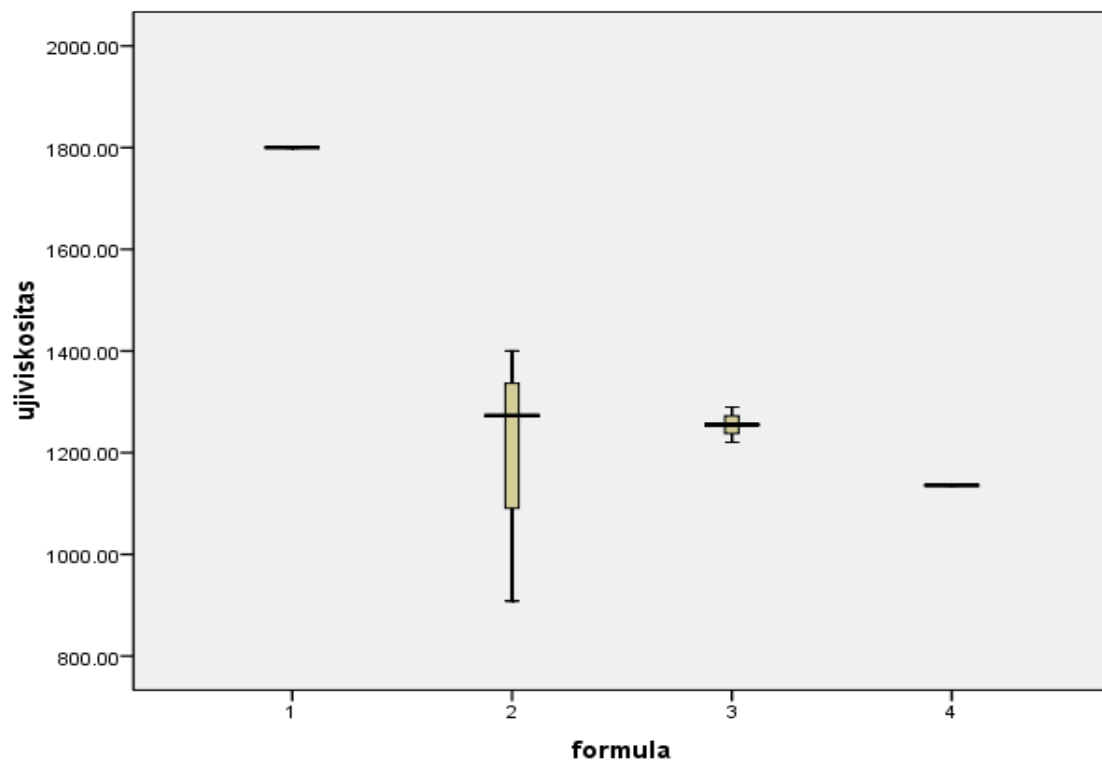
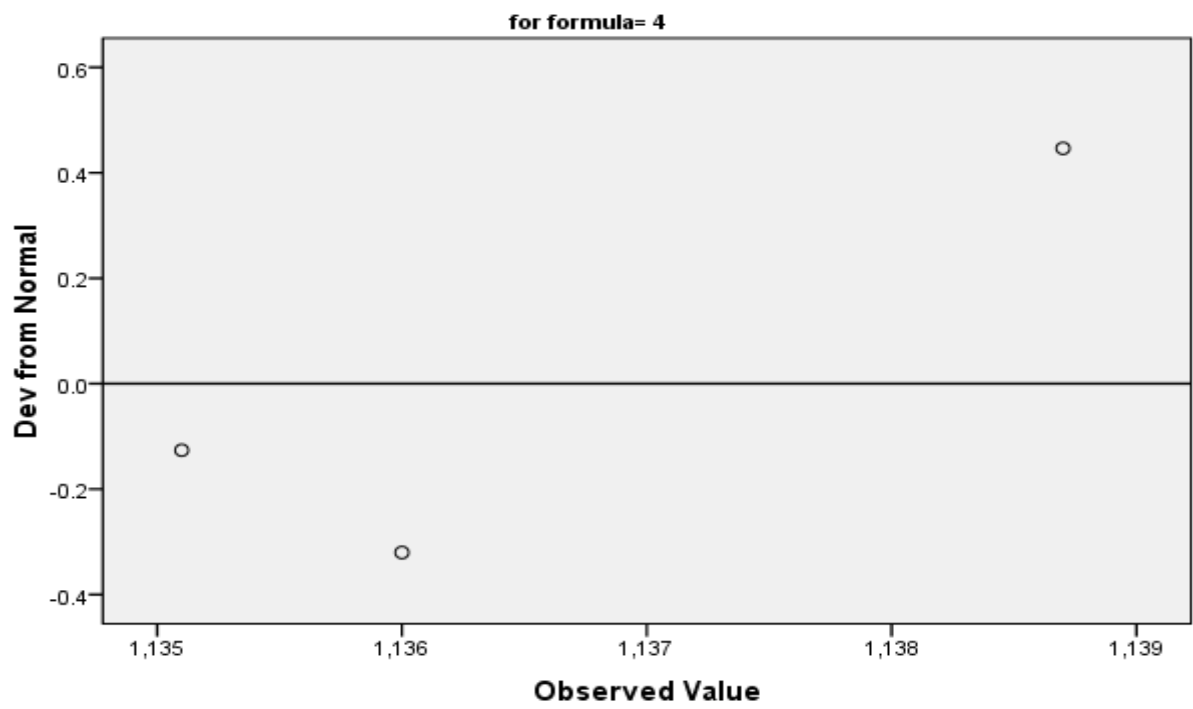


Detrended Normal Q-Q Plot of ujiviskositas



Detrended Normal Q-Q Plot of ujeviskositas**Detrended Normal Q-Q Plot of ujeviskositas**

Detrended Normal Q-Q Plot of ujviskositas



Oneway

ANOVA					
ujiviskositas					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	845136.680	3	281712.227	16.977	.001
Within Groups	132748.587	8	16593.573		
Total	977885.267	11			

Lampiran 8. Hasil Uji Normalisasi dan Uji Statistik Daya Sebar

2. Uji Daya Sebar

Explore

formula

Case Processing Summary

		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
ujidayasebar	1	3	100.0%	0	.0%	3	100.0%
	2	3	100.0%	0	.0%	3	100.0%
	3	3	100.0%	0	.0%	3	100.0%
	4	3	100.0%	0	.0%	3	100.0%

Tests of Normality

formula		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
ujidayasebar	1	.337	3	.	.855	3	.253
	2	.292	3	.	.923	3	.463
	3	.175	3	.	1.000	3	1.000
	4	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

ujidayasebar

Stem-and-Leaf Plots

ujidayasebar Stem-and-Leaf Plot for
formula= 1

Frequency	Stem & Leaf
1.00	3 . 0
2.00	3 . 67
Stem width:	1.00
Each leaf:	1 case(s)

ujidayasebar Stem-and-Leaf Plot for
formula= 2

Frequency	Stem & Leaf
2.00	4 . 23
1.00	4 . 6
Stem width:	1.00
Each leaf:	1 case(s)

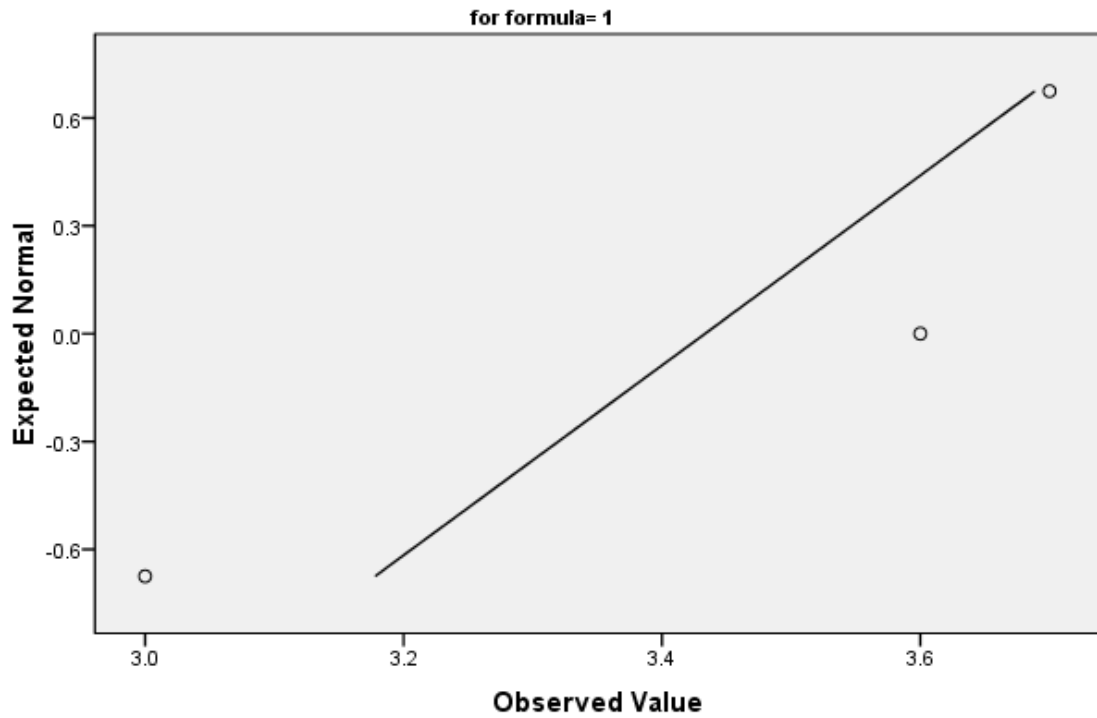
ujidayasebar Stem-and-Leaf Plot for
formula= 3

Frequency	Stem & Leaf
3.00	4 . 024
Stem width:	1.00
Each leaf:	1 case(s)

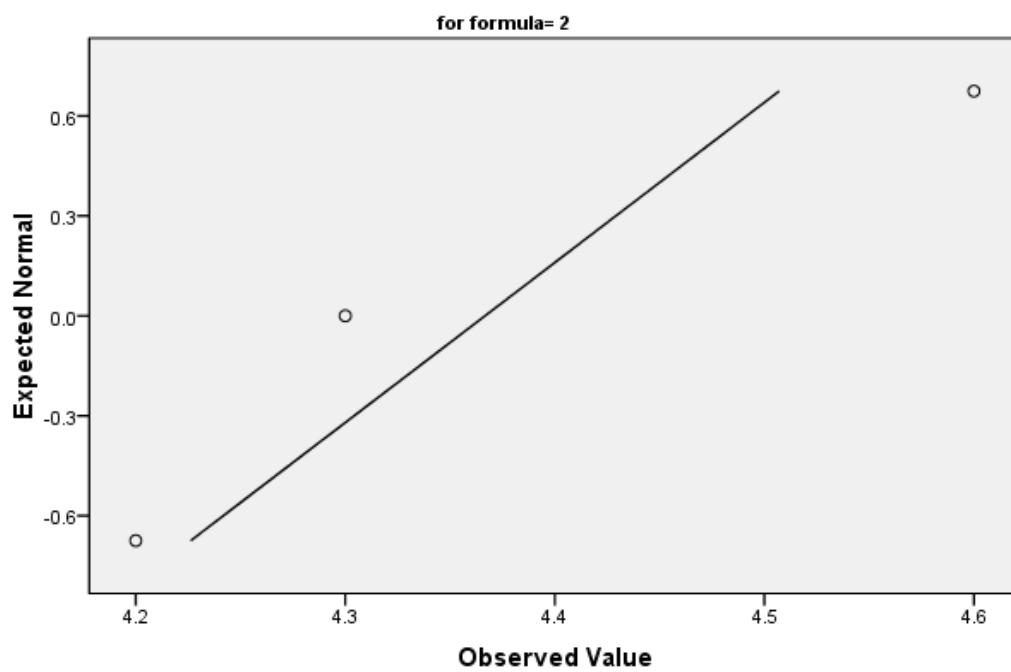
ujidayasebar Stem-and-Leaf Plot for
formula= 4

Frequency	Stem & Leaf
1.00	5 . 8
2.00	6 . 12
Stem width:	1.00
Each leaf:	1 case(s)

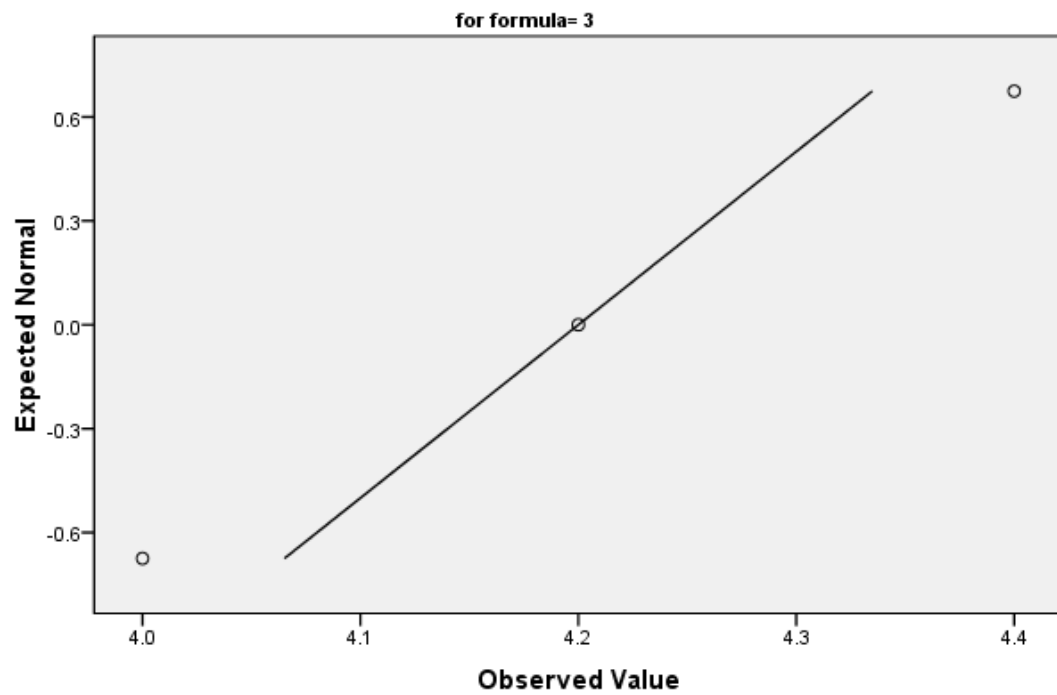
Normal Q-Q Plot of ujidayasebar



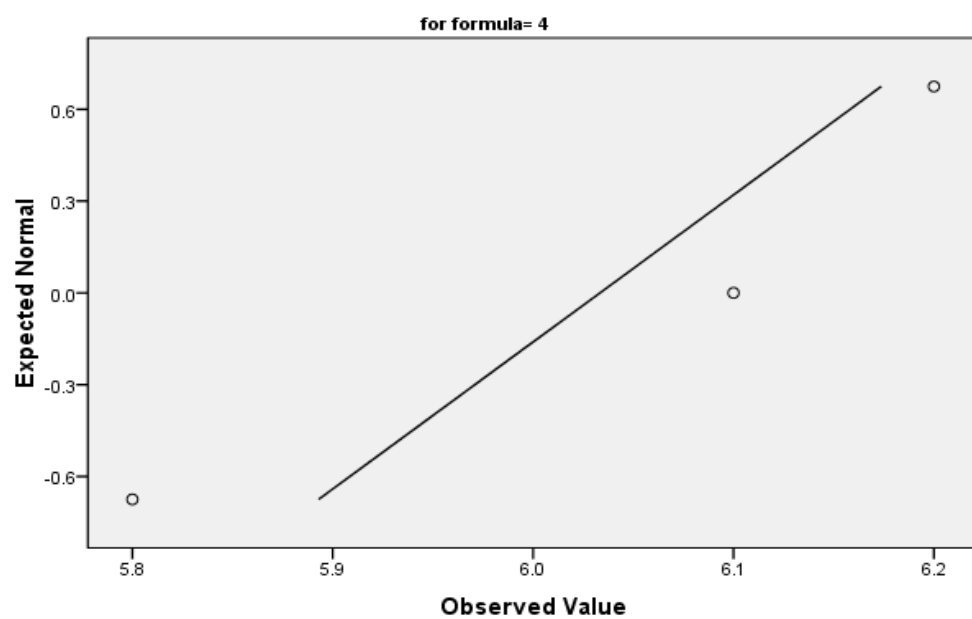
Normal Q-Q Plot of ujidayasebar



Normal Q-Q Plot of ujidayasebar



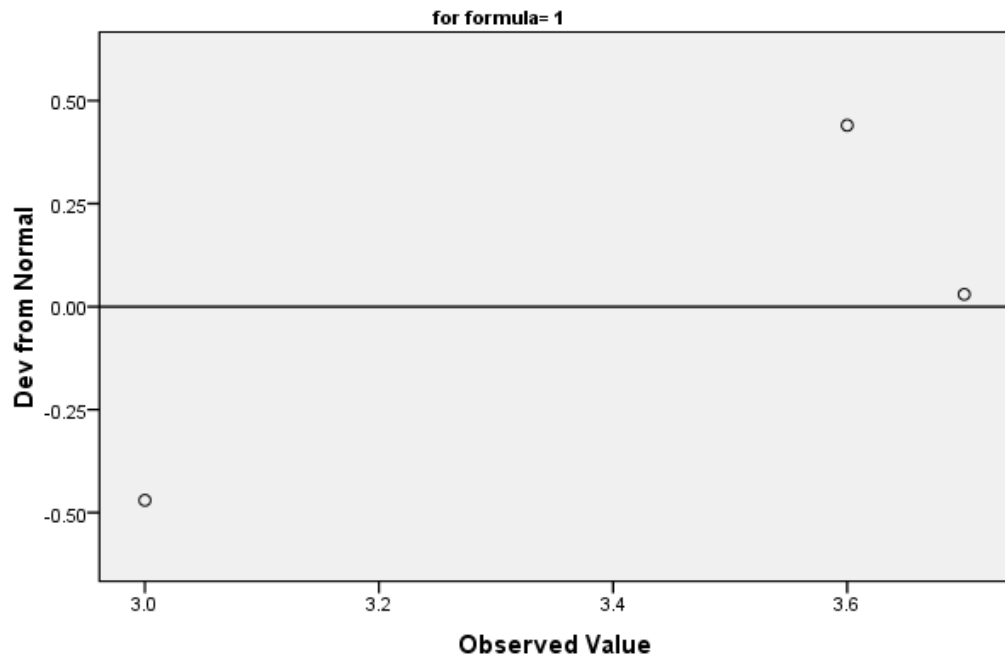
Normal Q-Q Plot of ujidayasebar



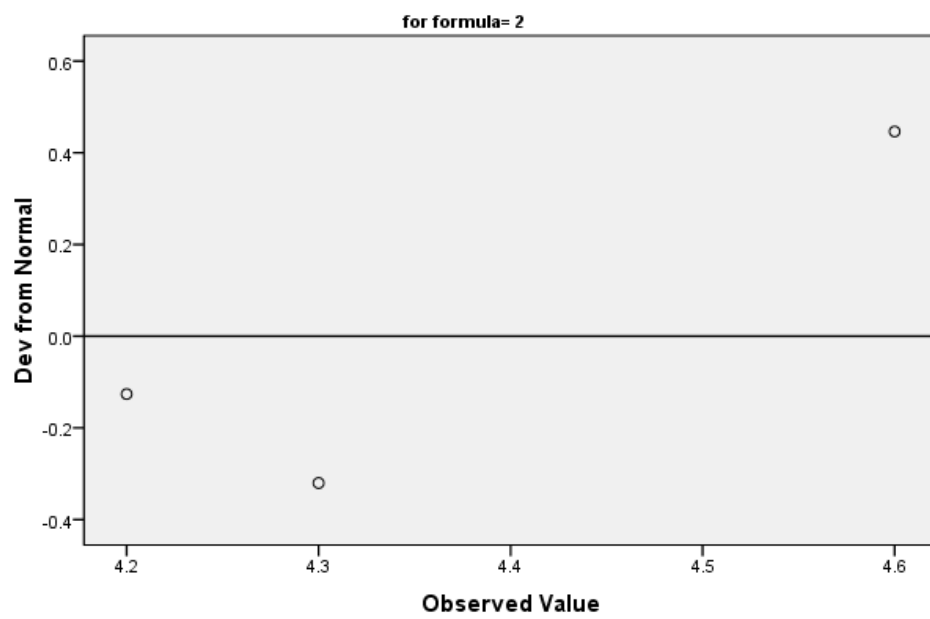
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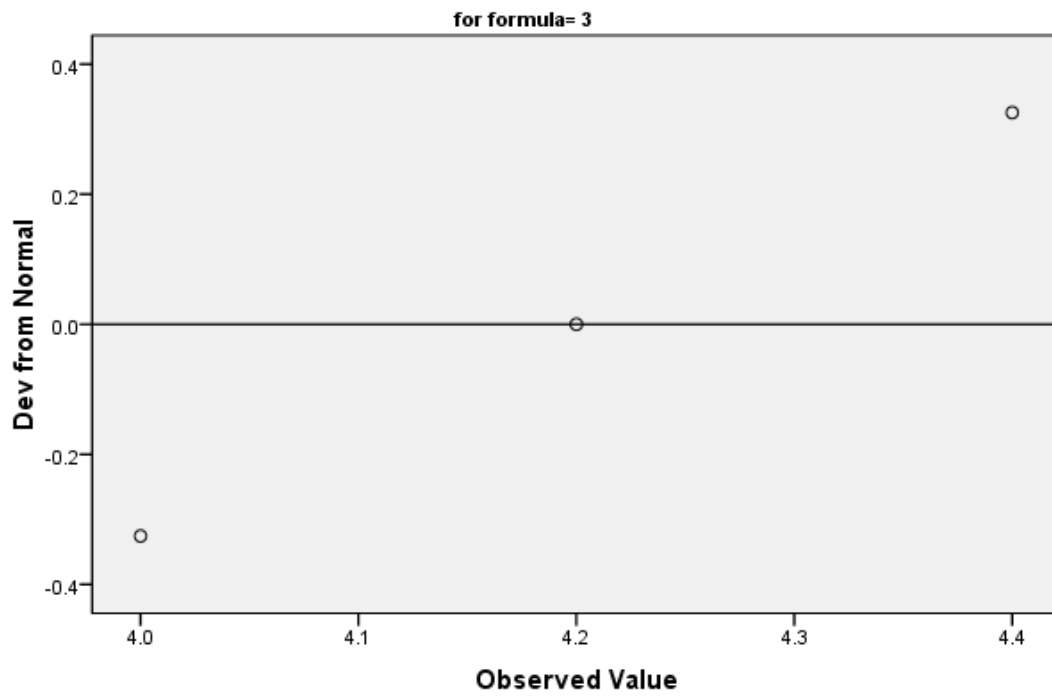
Detrended Normal Q-Q Plot of ujidayasebar



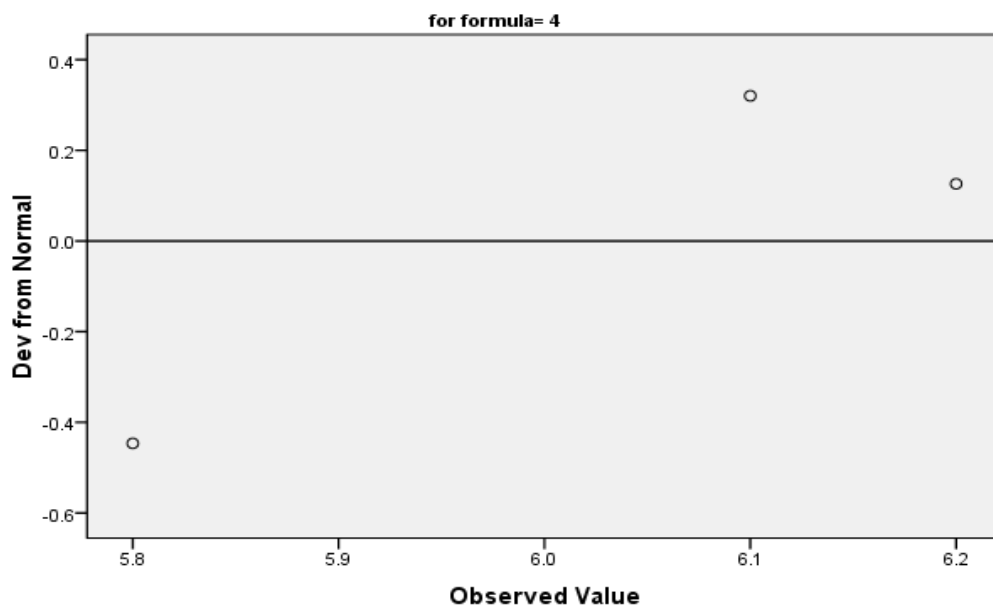
Detrended Normal Q-Q Plot of ujidayasebar

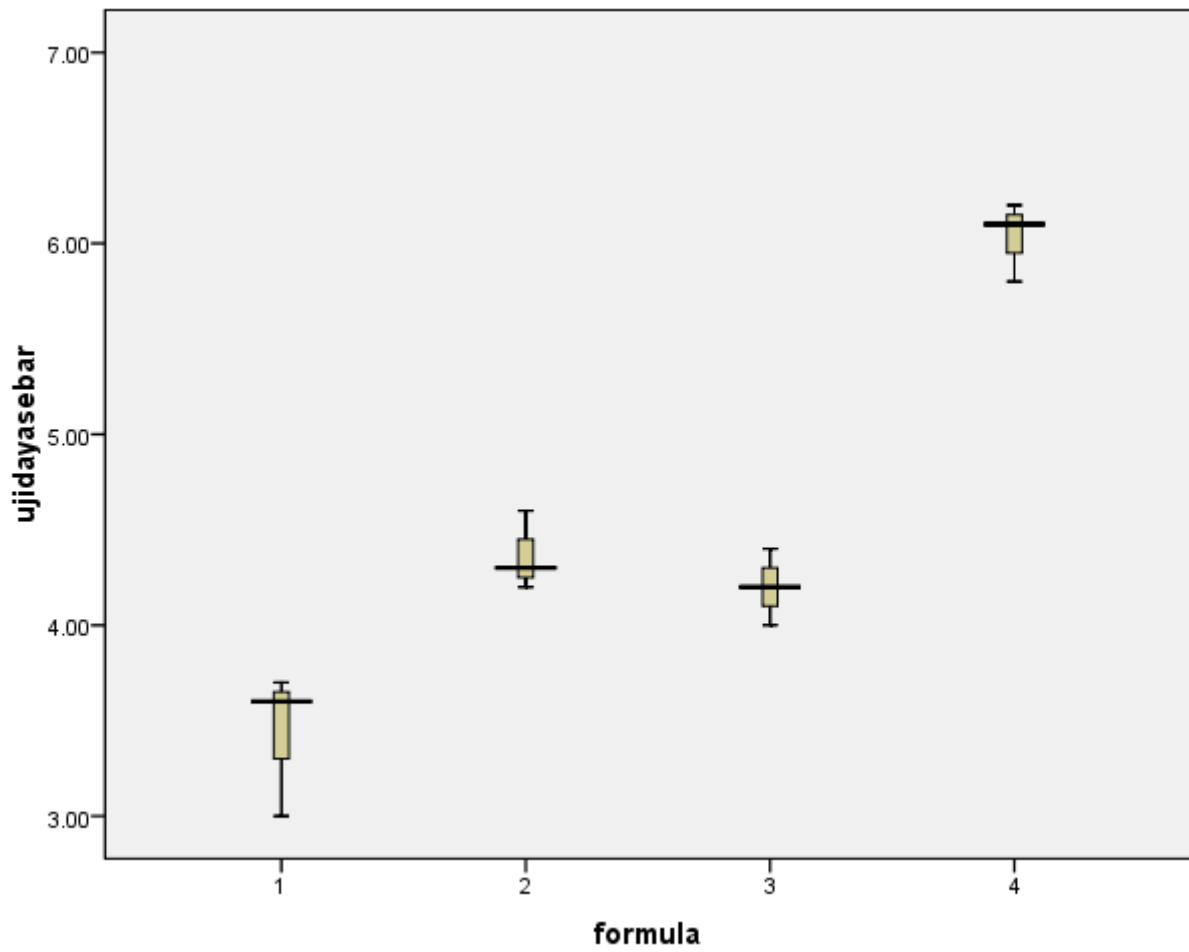


Detrended Normal Q-Q Plot of ujidayasebar



Detrended Normal Q-Q Plot of ujidayasebar





ANOVA

ujidayasebar					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.789	3	3.596	53.280	.000
Within Groups	.540	8	.068		
Total	11.329	11			

Lampiran 9. Hasil Uji Normalisasi dan Uji Statistik Daya Lekat

Explore

formula

Case Processing Summary

formula		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
ujidayalekat	1	3	100.0%	0	.0%	3	100.0%
	2	3	100.0%	0	.0%	3	100.0%
	3	3	100.0%	0	.0%	3	100.0%
	4	3	100.0%	0	.0%	3	100.0%

Tests of Normality

formula		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
ujidayalekat	1	.363	3	.	.801	3	.117
	2	.339	3	.	.851	3	.244
	3	.256	3	.	.962	3	.625
	4	.306	3	.	.905	3	.401

a. Lilliefors Significance Correction

ujidayalekat

ujidayalekat Stem-and-Leaf Plot for formula= 1

```

Frequency      Stem & Leaf
      3.00      0 . 134

Stem width:    100.00
Each leaf:     1 case(s)
  
```

ujidayalekat Stem-and-Leaf Plot for formula= 2

```

Frequency      Stem & Leaf
      2.00      4 . 13
      .00      5 .
      1.00      6 . 0
  
```

Stem width: 1.00
 Each leaf: 1 case(s)

ujidayalekat Stem-and-Leaf Plot for
 formula= 3

Frequency	Stem & Leaf
2.00	0 . 24
1.00	0 . 8

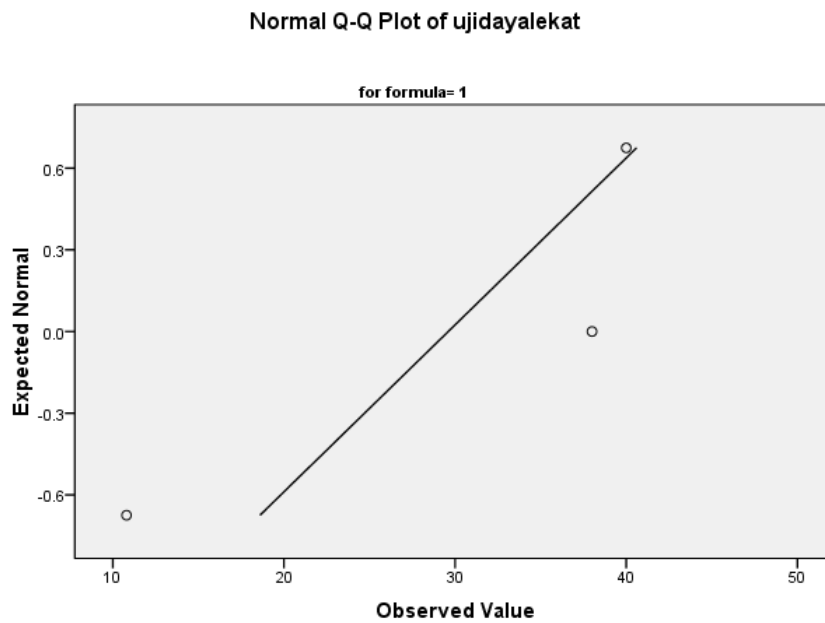
Stem width: 10.00
 Each leaf: 1 case(s)

ujidayalekat Stem-and-Leaf Plot for
 formula= 4

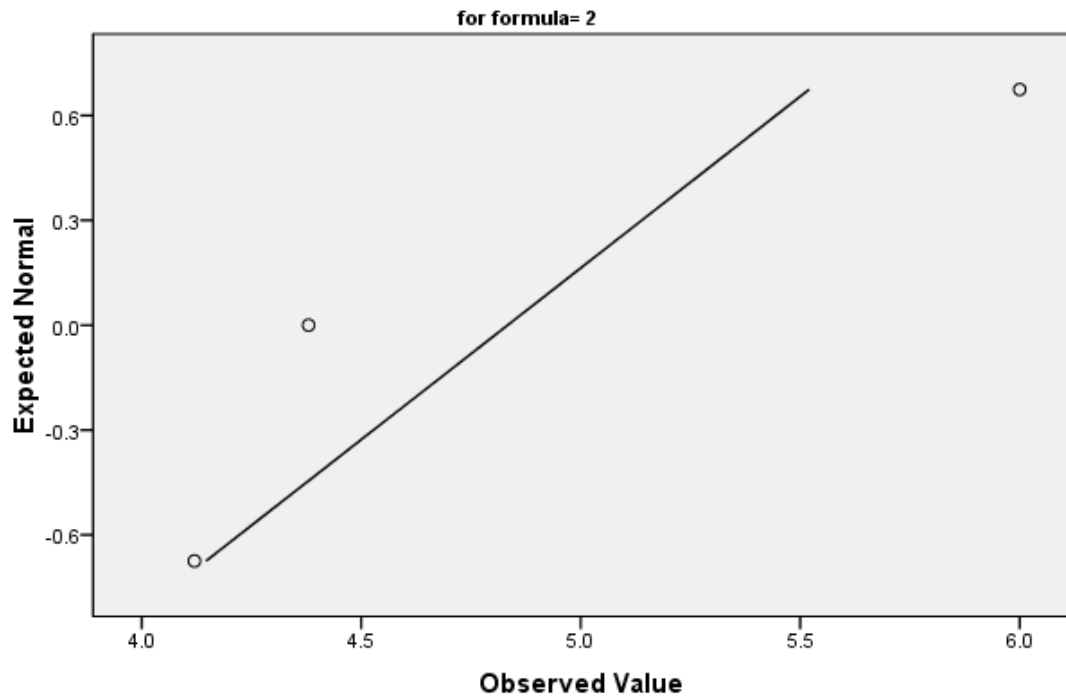
Frequency	Stem & Leaf
2.00	0 . 23
1.00	0 . 5

Stem width: 10.00
 Each leaf: 1 case(s)

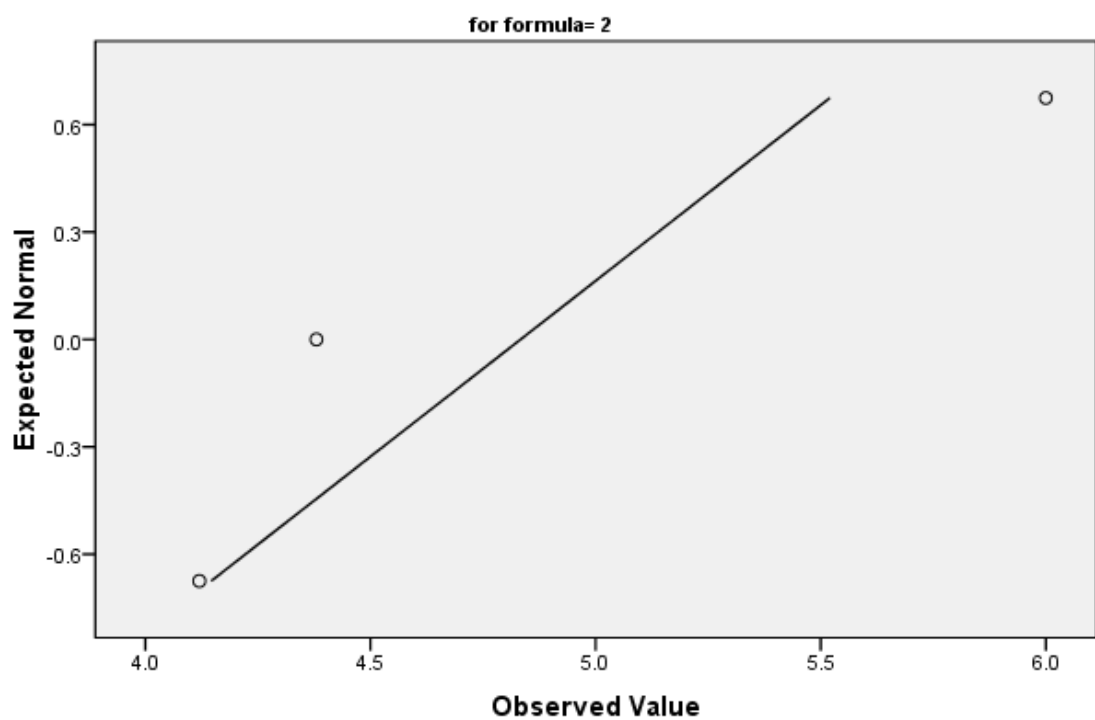
Normal Q-Q Plots



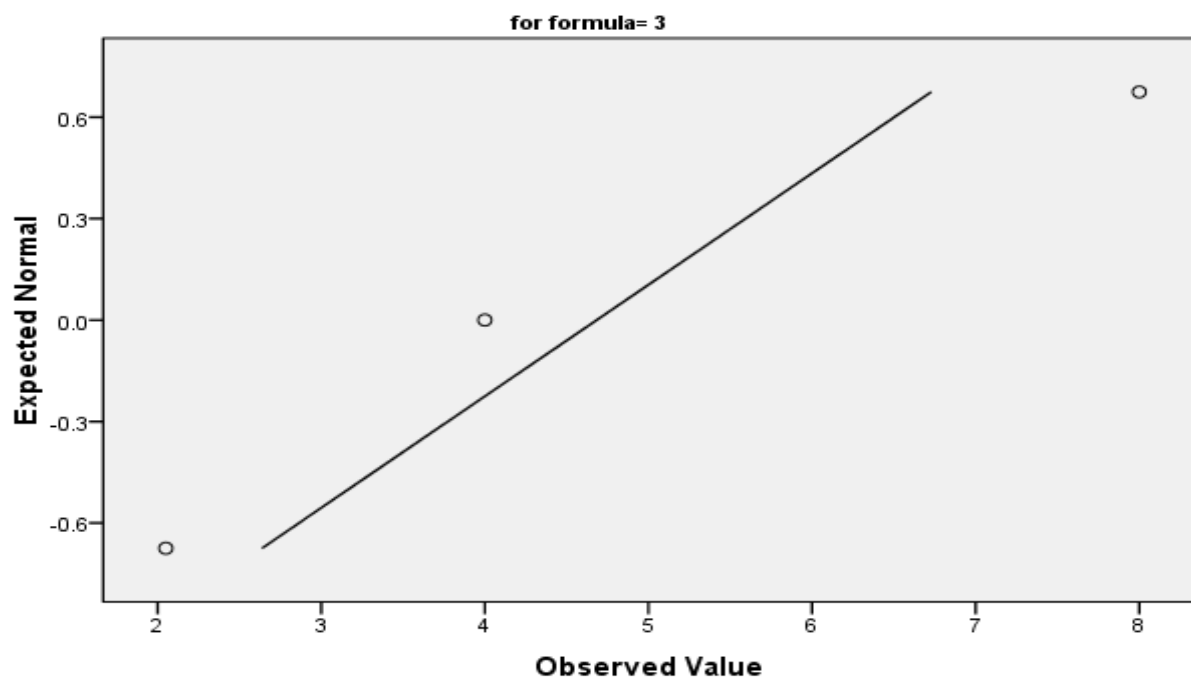
Normal Q-Q Plot of ujidayalekat



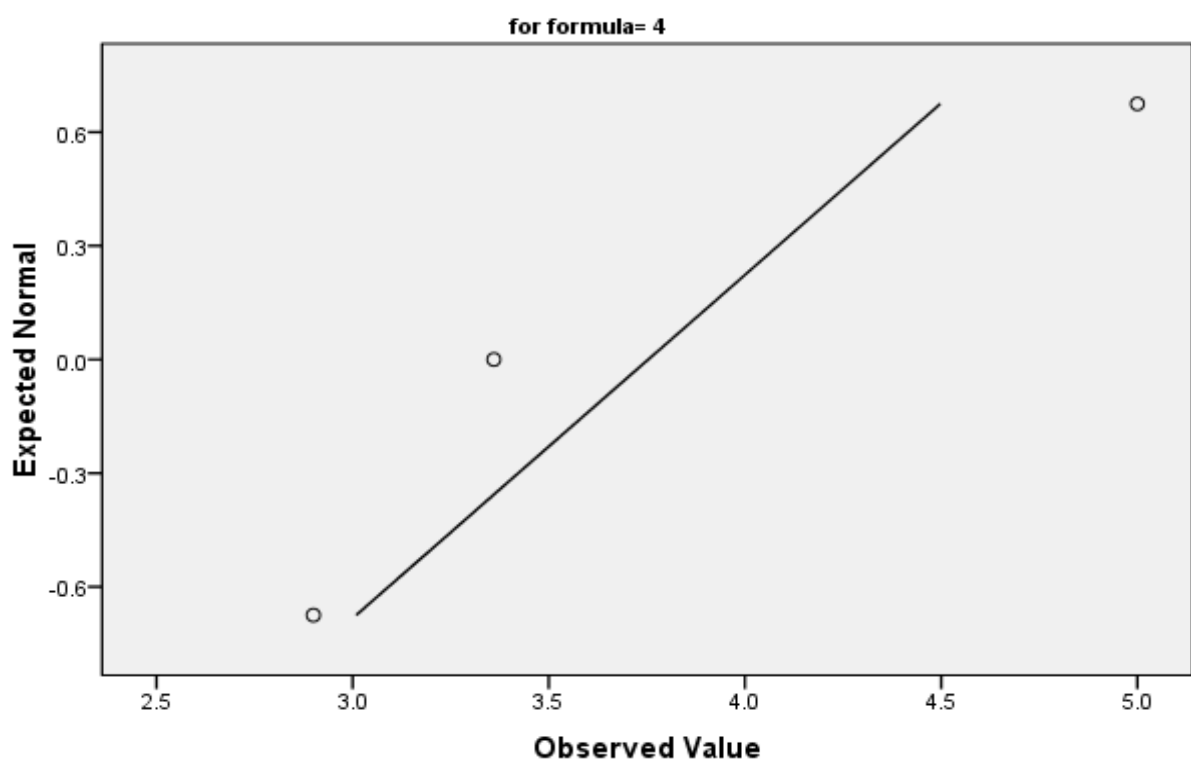
Normal Q-Q Plot of ujidayalekat



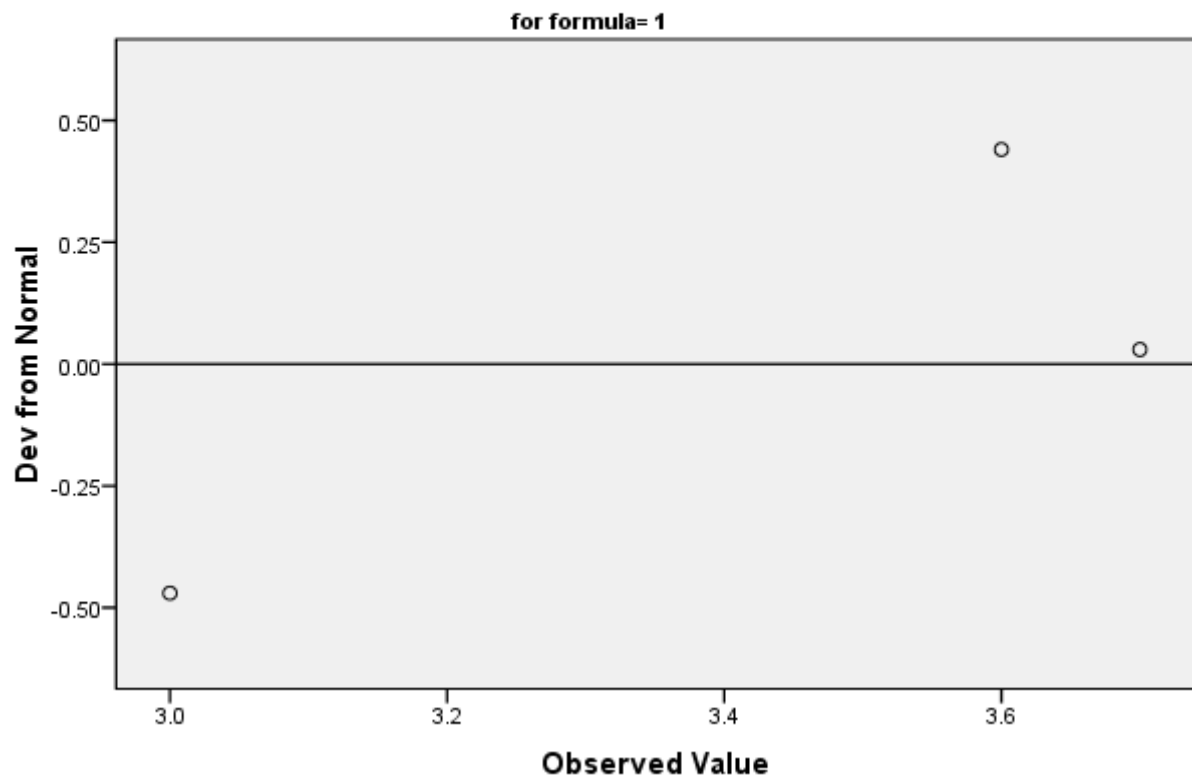
Normal Q-Q Plot of ujidayalekat



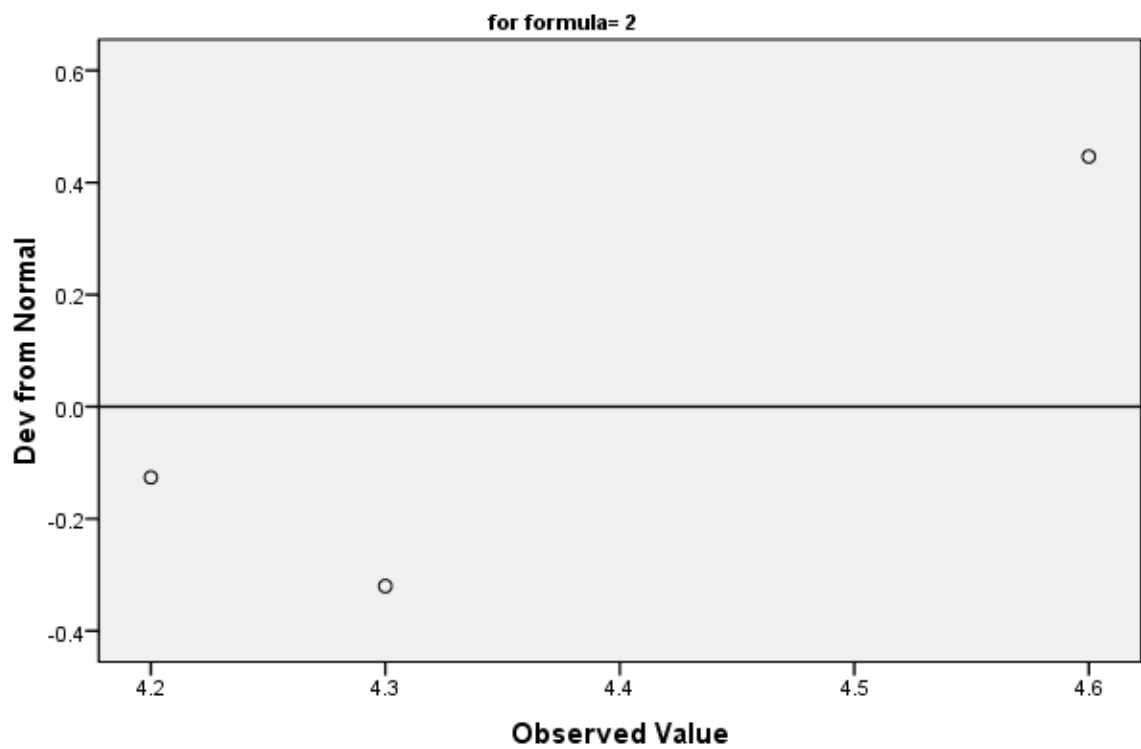
Normal Q-Q Plot of ujidayalekat



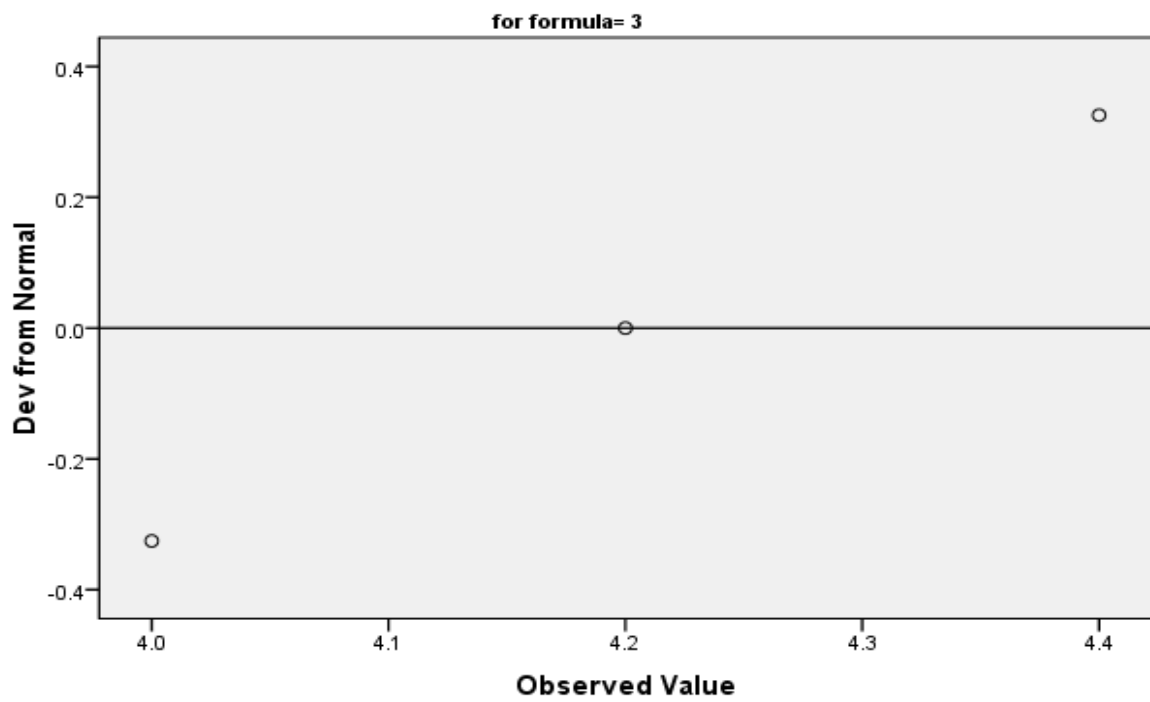
Detrended Normal Q-Q Plot of ujidayasebar



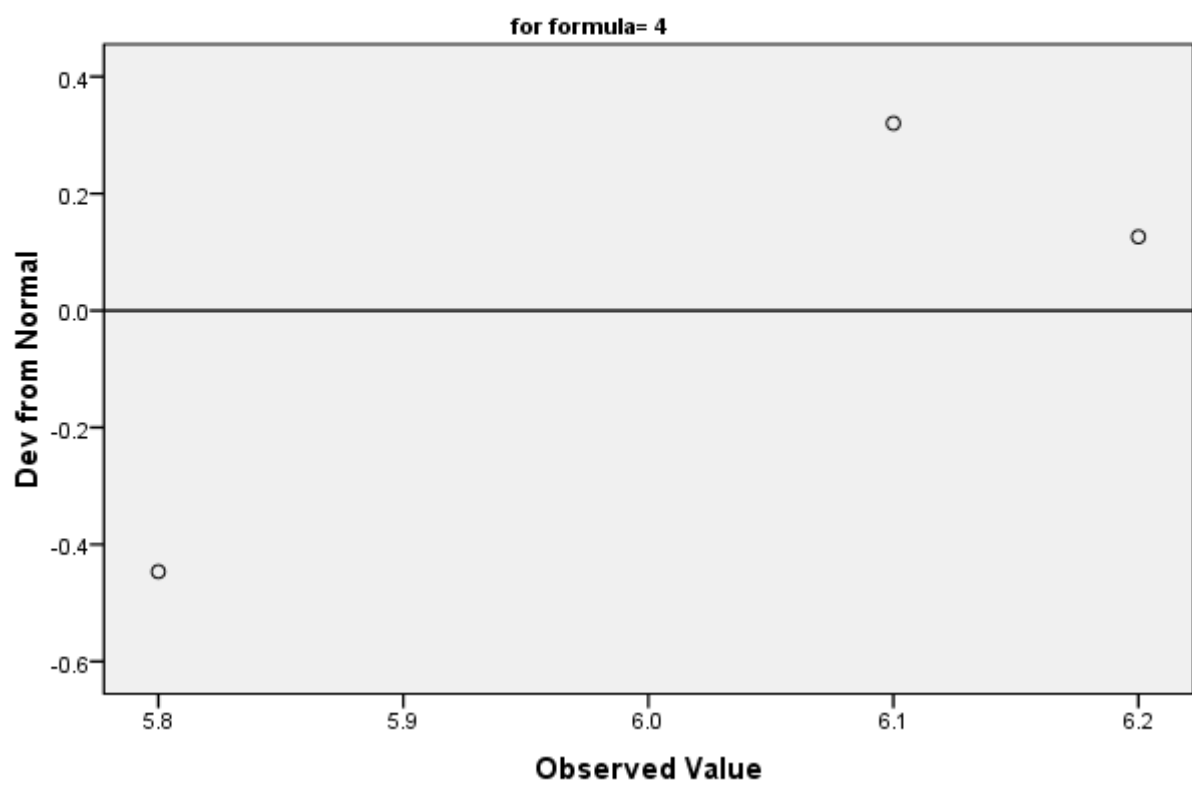
Detrended Normal Q-Q Plot of ujidayasebar

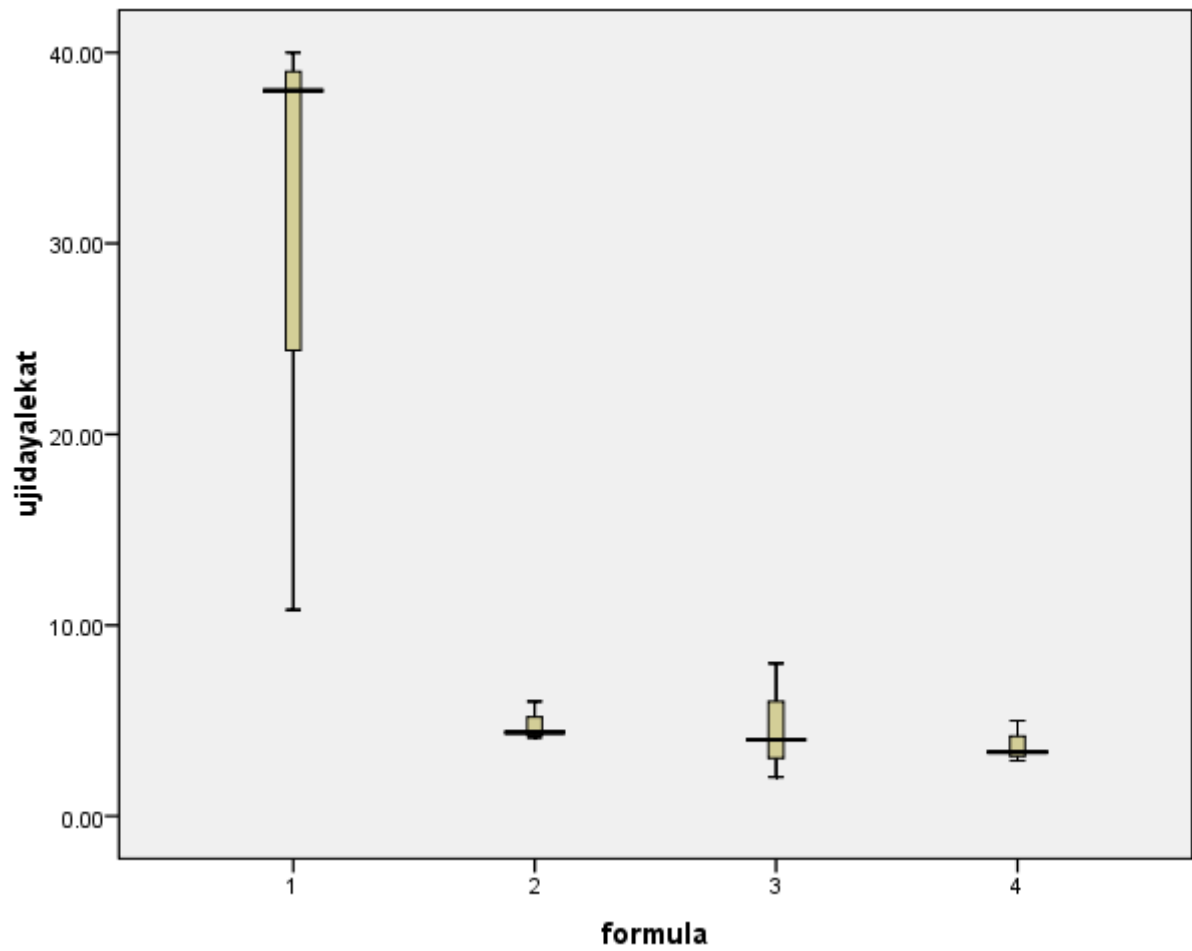


Detrended Normal Q-Q Plot of ujidayasebar



Detrended Normal Q-Q Plot of ujidayasebar





Oneway

ANOVA

ujidayasebar	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.789	3	3.596	53.280	.000
Within Groups	.540	8	.068		
Total	11.329	11			

Lampiran 10. Hasil Uji Normalisasi dan Uji Statistik Daya Hambat

Explore

formula

Case Processing Summary

Formula		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
ujibakteri	formula3	3	100.0%	0	.0%	3	100.0%
	Kontrolpositif	3	100.0%	0	.0%	3	100.0%

Tests of Normality

Formula		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
ujibakteri	formula3	.227	3	.	.983	3	.747
	kontrolpositif	.324	3	.	.878	3	.317

a. Lilliefors Significance Correction

ujibakteri

Stem-and-Leaf Plots

ujibakteri Stem-and-Leaf Plot for
formula= formula3

```

Frequency      Stem & Leaf
      2.00      0 . 47
      1.00      1 . 1

Stem width:    10.00
Each leaf:     1 case(s)

```

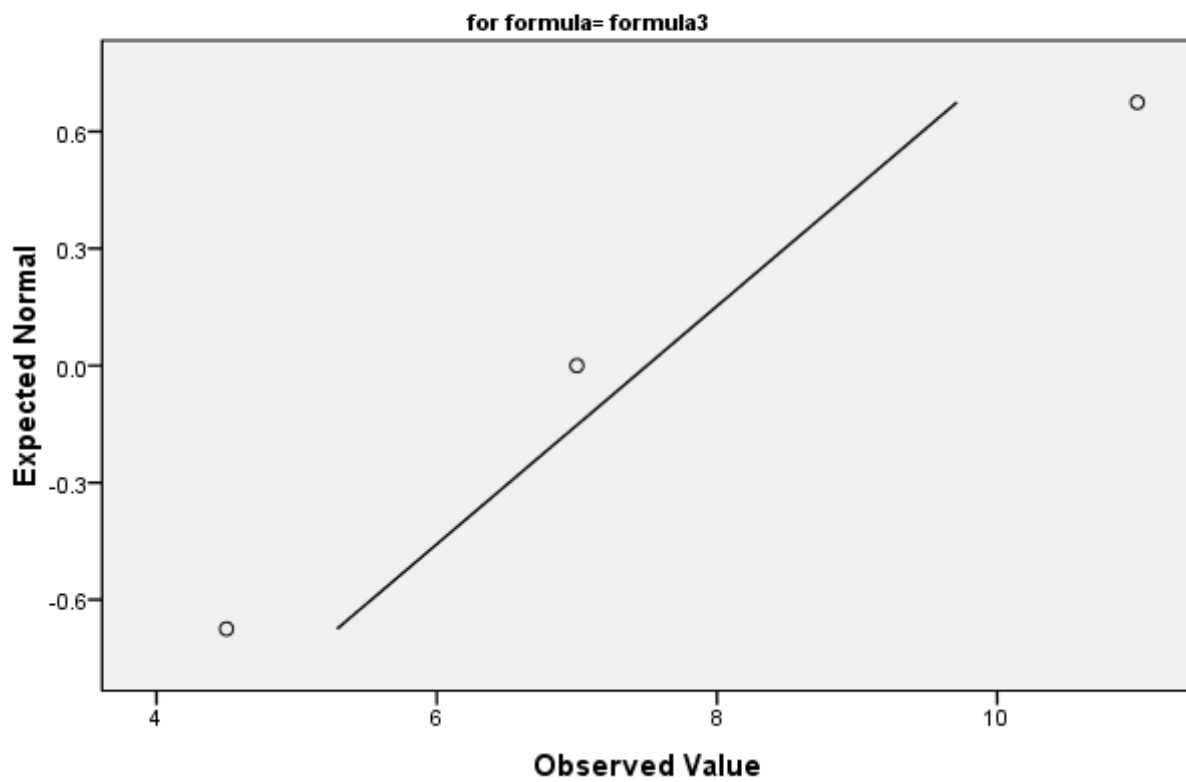
ujibakteri Stem-and-Leaf Plot for
formula= kontrolpositif

Frequency	Stem & Leaf
2.00	0 . 34
1.00	1 . 1

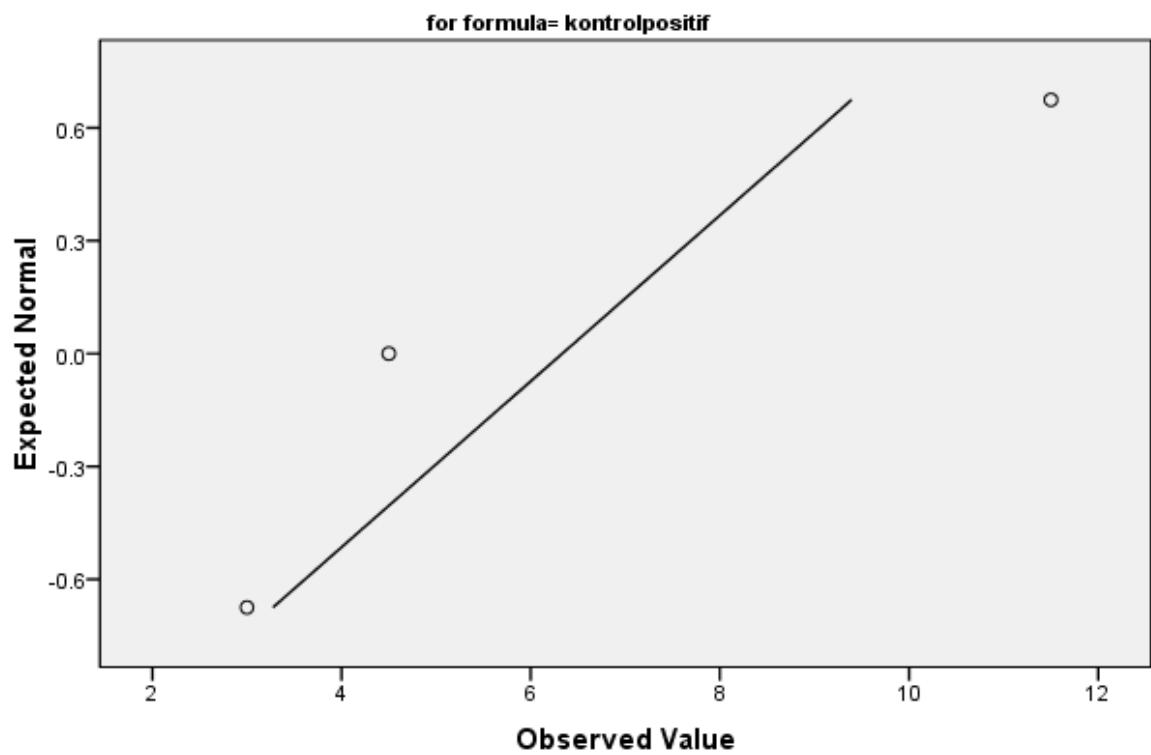
Stem width: 10.00
Each leaf: 1 case(s)

Normal Q-Q Plots

Normal Q-Q Plot of ujibakteri

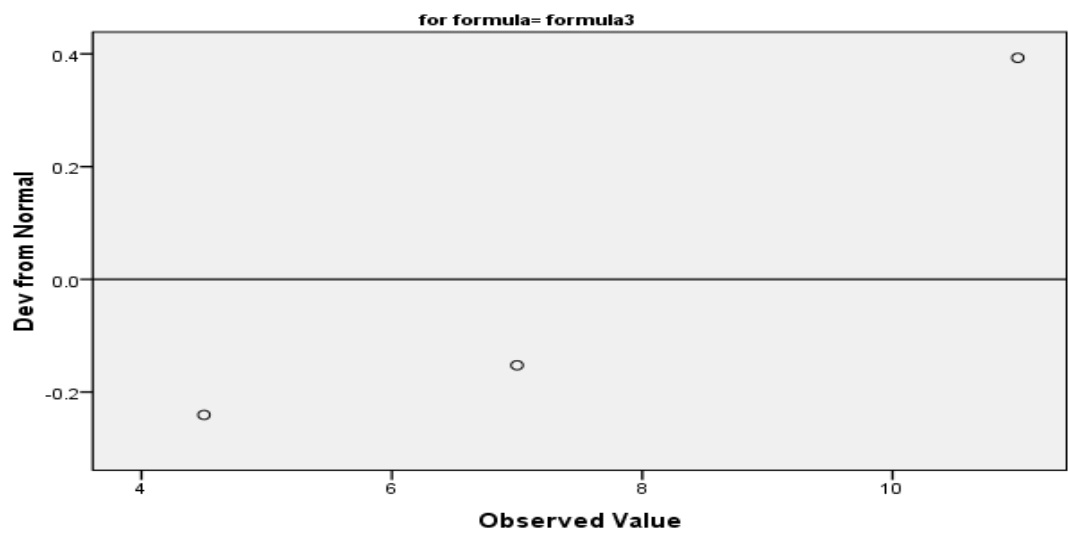


Normal Q-Q Plot of ujibakteri

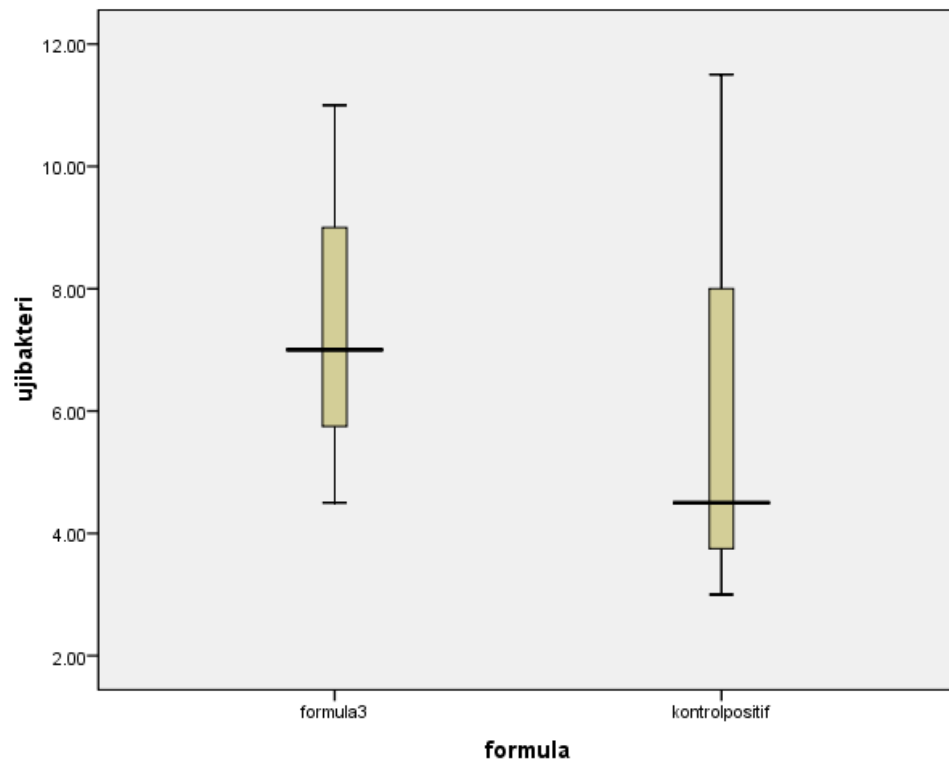
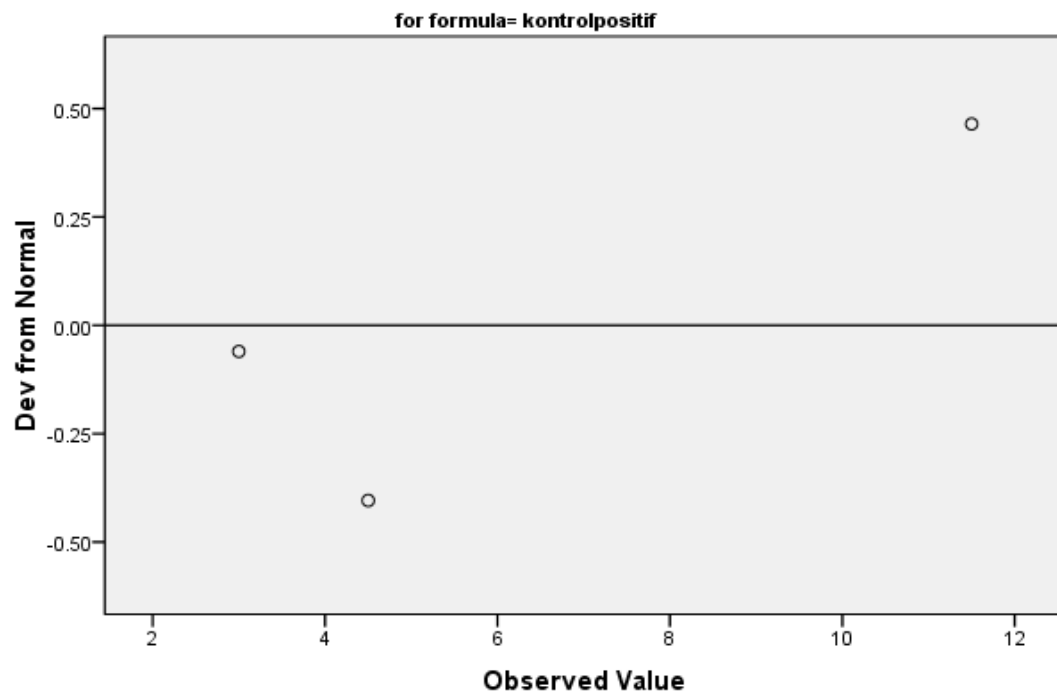


Detrended Normal Q-Q Plots

Detrended Normal Q-Q Plot of ujibakteri



Detrended Normal Q-Q Plot of ujibakteri



Oneway

ANOVA

ujibakteri					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.042	1	2.042	.130	.736
Within Groups	62.667	4	15.667		
Total	64.708	5			


```
T-TEST GROUPS=kelompok(1 2)
/MISSING=ANALYSIS
/VARIABLES=dayahambat
/CRITERIA=CI(.9500).
```

T-Test

[DataSet0]

Group Statistics

	kelo m...	N	Mean	Std. Deviation	Std. Error Mean
dayahambat	1	3	6.3333	4.53689	2.61937
	2	3	7.5000	3.27872	1.89297

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
dayahambat	Equal variances assumed	.690	.453	-.361	4	.736	-1.16667	3.23179	-10.13954	7.80621
	Equal variances not assumed			-.361	3.641	.738	-1.16667	3.23179	-10.49905	8.16572

Lampiran 11. Hasil Uji Statistik Daya Hambat Formula Negatif dan Formula 3

```
T-TEST GROUPS=formula(1 2)
/MISSING=ANALYSIS
/VARIABLES=dayahambat
/CRITERIA=CI(.9500).
```

T-Test

[DataSet0]

Group Statistics

	form ula	N	Mean	Std. Deviation	Std. Error Mean
dayahambat	1	3	.0000	.00000	.00000
	3	3	8.3333	2.30940	1.33333

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
dayahambat	Equal variances assumed	16.000	.016	-6.250	4	.003	-8.33333	1.33333	-12.03526	-4.63141
	Equal variances not assumed			-6.250	2.000	.025	-8.33333	1.33333	-14.07020	-2.59646