V. KESIMPULAN DAN SARAN

A. Kesimpulan

Berdasarkan penelitian di atas dapat diambil beberapa kesimpulan :

1. Penggunaan garam-garam Mg dalam media tanam meningkatkan ANR daun, kadar klorofil, luas permukaan daun, berat kering total dan jumlah daun bayam.

2. Garam $MgSO_4$ menghasilkan nilai tertinggi bagi ANR dan pertumbuhan tanaman bayam bila dibandingkan dengan perlakuan Mg-EDTA dan $MgCl_2$.

B. Saran-saran

Saran-saran yang dapat digunakan sebagai masukan untuk penelitian lebih lanjut adalah:

1. Perlu diusahakan jumlah sampel (tanaman bayam) lebih besar dan menggunakan jenis bayam yang lain.

2. Sebelum tanaman disiram, perlu diperhatikan dan diperiksa pH larutan hara yang akan digunakan.

3. Sebaiknya pengukuran luas permukaan daun berdasarkan pada perbandingan berat replika daun dengan berat total kertas (Metode Gravimeter)

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LAMPIRAN

Lampiran 1. Tabel komposisi garam-garam penyusun larutan hidroponik resep Marvel

Garam	Konsentrasi (g/l)
KNO_3	0,39911
$MgSO_4 . 7 H_2O$	0,19956
$Ca(H_2PO_4)_2.2H_2O$	0,19956
$CaSO_4.2H_2O$	1,29712
$(NH_4)_2SO_4$	0,09978
$FeSO_4.7H_2O$	0,02454
$MnSO_4$	0,00154
$Na_2B_4O_7.10H_2O$	0,01848
$ZnSO_4.7H_2O$	0,00077

(Prihmantoro & Indriani, 1995)

Keterangan :

Variasi dilakukan pada garam Mg, dengan konsentrasi Mg-nya masing-masing 30 ppm yaitu pada larutan $MgSO_4. 7H_2O = 0,150$ gr/liter, $MgCl_2 = 0,08058$ gr/ liter dan Mg-EDTA = 0,050 gr/ liter (perhitungan ditunjukkan pada lampiran 44).

Lampiran 2. Tabel pengaruh variasi garam-garam Mg terhadap ANR (μ mol NO_2^- /g/ jam) Daun

Ulangan	Minggu	ANR (μ mol NO_2^- /g/jam)				Σ	Rata-rata
		Kontrol (Tnp Mg)	$MgSO_4$	$MgCl_2$	Mg-EDTA		
1		2,218	11,937	4,542	9,507		
2		2,148	11,232	4,261	9,401		
3	1	2,394	10,070	5,915	8,415		
4		2,817	10,458	5,317	9,718		
5		2,923	12,817	5,704	9,683		
Σ		12,500	56,514	25,739	46,724	141,477	
x		2,500	11,303	5,148	9,345		7,074
1		4,683	7,852	6,690	7,606		
2		4,718	9,085	6,585	7,430		
3	3	4,401	8,873	6,549	7,324		
4		4,085	7,817	6,268	6,972		
5		4,366	8,028	5,070	7,817		
Σ		22,253	41,655	31,162	37,149	132,219	
x		4,451	8,331	6,232	7,430		6,611
1		3,028	7,958	6,162	6,373		
2		3,838	8,486	5,739	7,218		
3	5	3,451	6,972	6,162	7,077		
4		3,063	7,359	5,739	7,711		
5		4,225	7,924	5,810	7,711		
Σ		17,605	38,698	29,612	36,090	122,005	6,100
x		3,521	7,740	5,922	7,218		
Σ besar		52,358	136,867	86,513	119,963	395,701	
x besar		3,491	9,125	5,767	7,998		6,595

$$FK = \frac{Y^2}{r.a.b} = \frac{(395,701)^2}{5 \times 3 \times 4} = \frac{156579,281}{60} = 2609,655$$

$$JKT = (2,218)^2 + (2,148)^2 + \ldots + (7,711)^2 - 2609,655$$
$$= 2969,200 - 2609,655$$
$$= 359,545$$

$$JKP = \frac{(12,500)^2 + (56,514)^2 + (36,090)^2}{5} - 2609,655$$
$$= 343,144$$

$$JKG = JKT - JKP$$
$$= 359,545 - 343,144$$
$$= 16,401$$

db perlakuan $\quad = 3 \times 4 - 1 = 11$

db galat $\qquad = 3 \times 4 (5 - 1) = 48$

db total $\qquad = 5 \times 3 \times 4 - 1 = 59$

$$JK(A) = \frac{\Sigma(a)^2}{r \times b} - FK$$

$$= \frac{(141,477)^2 + (132,219)^2 + (122,005)}{5 \times 4} - 2609,655$$

$$= \frac{52382,826}{20} - 2609,655 = 2619,141 - 2609,655$$

$$= 9,486$$

$$JK(B)= \frac{\Sigma(b)^2}{r \times a} - FK$$

$$= \frac{(52,358)^2 + (136,867)^2 + (86,513)^2 + (119,963)^2}{5 \times 3} - 2609,655$$

$$= \frac{43349,556}{15} - 2609,655 = 2889,970 - 2609,655$$

$$= 280,315$$

$$JK(AB)= JKP - JK(A) - JK(B)$$
$$= 343,144 - 9,486 - 280,315$$
$$= 53,343$$

db faktor $A = a - 1 = 3 - 1 = 2$

db faktor $B = b - 1 = 4 - 1 = 3$

db interaksi $(AB) = (a - 1)(b - 1) = (3 - 1)(4 - 1) = 2 \times 3 = 6$

Lampiran 3. Tabel Analisa variansi Aktivitas Nitrat Reduktase daun bayam

Sumber Keragaman	db	JK	KT	F hitung	F tabel
Perlakuan	11	343,14	-	-	
A	2	9,486	4,743	13,868 *	3,19
B	3	280,315	93,438	273,211*	2,80
AB	6	53,343	8,891	25,997*	2,30
Galat	48	16,401	0,342		

Catatan : tanda * menunjukkan ada beda nyata

Lampiran 4. Perhitungan CV_{ex} Aktivitas Nitrat Reduktase daun bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} \times 100\%$$

$$= \frac{\sqrt{0,342}}{6,595} \times 100\%$$

$$= 8,867\%$$

Uji DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{0,342}{5}\right]^{\frac{1}{2}}$$

$$= \sqrt{0,0684}$$

$$= 0,262$$

P	$Rp = rpS\hat{y}$
2	$(2,868)\,(0,262) = 0,751$
3	$(2,998)\,(0,262) = 0,785$
4	$(3,092)\,(0,262) = 0,810$

Ranking ANR daun vs perlakuan

Rp	0,810	0,785	0,751	-
x	3,491	5,767	7,998	9,125
9,125	5,634*	3,358*	1,127*	0
7,998	4,507*	2,231*	0	
5,767	2,276*	0		
3,491	0			
	a	b	c	d

Ranking lamanya waktu pengamatan

Rp	0,785	0,751	-
x	6,100	6,611	7,704
7,074	0,974*	0,463	0
6,611	0,511	0	
6,100	0		
	p	pq	q

Lampiran 5. Tabel pengaruh variasi garam-garam Mg terhadap klorofil a daun (mg/gr

daun segar)

Ulangan	Minggu	Klorofil a daun (mg/gr daun segar)				Σ	Rata-rata
		Kontrol (Tnp Mg)	$MgSO_4$	$MgCl_2$	Mg-EDTA		
1.		0,479	0,517	0,508	0,520		
2.		0,476	0,510	0,506	0,507		
3.	1	0,457	0,521	0,490	0,523		
4.		0,479	0,511	0,507	0,506		
5.		0,468	0,516	0,493	0,515		
Σ		2,359	2,575	2,504	2,571	10,009	
x		0,472	0,515	0,501	0,514		0,501
1.		1,510	2,132	1,982	2,123		
2.		1,577	2,145	1,980	2,134		
3.	3	1,482	2,132	1,984	2,140		
4.		1,498	2,142	1,971	2,143		
5.		1,482	2,134	1,976	2,128		
Σ		7,549	10,685	9,893	10,668	38,795	
x		1,510	2,137	1,979	2,134		1,940
1.		0,922	2,706	2,079	2,530		
2.		0,914	2,744	2,052	2,576		
3.	5	0,957	2,757	2,103	2,463		
4.		0,958	2,757	2,076	2,563		
5.		0,957	2,711	2,101	2,530		
Σ		4,708	13,675	10,411	12,662	41,456	
x		0,942	2,735	2,082	2,532		2,073
Σ besar		14,616	26,936	22,808	25,901	90,260	
x besar		0,975	1,796	1,521	1,727		1,505

$$FK = \frac{(90,260)^2}{5 \times 3 \times 4} = 135,781$$

$$JKT = (0,479)^2 + (0,476)^2 + \ldots\ldots + (2,530)^2 - 135,781$$
$$= 41,400$$

$$JKP = \frac{(2,359)^2 + (2,575)^2 + \ldots + (12,662)^2}{5} - 135,781$$

$$= 41,378$$

$$JKG = 41,400 - 41,378 = 0,022$$

db perlakuan $= 3 \times 4 - 1 = 11$
db galat $= 3 \times 4(5-1) = 48$
db total $= 5.3.4 - 1 = 59$

$$JK\ (A) = \frac{(10,009)^2 + (38,795)^2 + (41,456)^2}{5 \times 4} - 135,781$$
$$= 30,411$$

$$JK\ (B) = \frac{(14,616)^2 + (26,936)^2 + (22,808)^2 + (25,901)^2}{5 \times 3} - 135,781$$
$$= 6,235$$

$$JK\ (AB) = 41,378 - 30,411 - 6,235 = 4,732$$

db faktor A $= 3 - 1 = 2$
db faktor B $= 4 - 1 = 3$
db interaksi $= (3-1)(4-1) = 6$

Lampiran 6. Tabel analisa variansi klorofil a daun

Sumber keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	41,378	-		
A	2	30,411	15,206	30412*	3,19
B	3	6,235	2,078	4156*	2,80
AB	6	4,732	0,789	1578*	2,30
Galat	48	0,022	0,0005		

Catatan : tanda * menunjukkan ada beda nyata

Lampiran 7. Perhitungan CV $_{ex}$ klorofil a daun bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\bar{x}} X100\%$$

$$= \frac{\sqrt{0,0005}}{1,505} X100\%$$

$$= 1,486\%$$

UJI DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{0,0005}{5}\right]^{\frac{1}{2}}$$

$$= 0,01$$

P	Rp = rpS$\hat{y}$
2	(2,868) (0,01) = 0,029
3	(2,998) (0,01) = 0,030
4	(3,092) (0,01) = 0,031

Ranking Klorofil a vs Perlakuan

Rp	0,031	0,030	0,029	-
x	0,975	1,521	1,727	1,796
1,796	0,821*	0,275*	0,069*	0
1,727	0,752*	0,206*	0	
1,521	0,546*	0		
0,975	0			
	a	b	c	d

Ranking lamanya waktu

Rp	0,030	0,029	-
x	0,501	1,940	2,073
2,073	1,572*	0,133*	0
1,940	1,439*	0	
0,501	0		
	p	q	r

Lampiran 8. Tabel pengaruh variasi garam-garam Mg terhadap klorofil b daun (mg / gr daun segar)

| Ulangan | Minggu | Klorofil b daun (mg/gr daun segar) | | | | Σ | Rata-rata |
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA		
1.		0,623	0,776	0,700	0,745		
2.		0,597	0,822	0,748	0,828		
3.	1	0,627	0,884	0,717	0,847		
4.		0,586	0,883	0,680	0,862		
5.		0,605	0,781	0,732	0,769		
Σ		3,038	4,146	3,577	4,051	14,812	
x		0,608	0,829	0,715	0,810		0,741
1.		0,691	2,382	1,317	1,539		
2.		0,528	2,065	1,465	1,424		
3.	3	0,562	2,796	1,545	1,504		
4.		0,595	2,519	1,458	1,413		
5.		0,617	2,153	1,480	1,440		
Σ		2,993	11,915	7,265	7,320	29,493	
x		0,599	2,383	1,453	1,464		1,475
1.		1,430	2,023	1,269	1,310		
2.		1,278	2,034	1,246	1,316		
3.	5	1,166	2,033	1,379	1,340		
4.		1,265	2,095	1,296	1,310		
5.		1,338	2,045	1,387	1,331		
Σ		6,477	10,230	6,577	6,607	29,891	
x		1,295	2,046	1,315	1,321		1,494
Σ besar		12,508	26,291	17,419	17,978	74,196	
x besar		0,834	1,753	1,161	1,198		1,237

$$FK = \frac{(74,196)^2}{5 \times 3 \times 4} = 91,751$$

$$JKT = (0,623)^2 + (0,597)^2 + \ldots + (1,331)^2 - 91,751$$

$$= 18,016$$

$$JKP = \frac{(3,038)^2 + (4,146)^2 + \ldots + (6,607)^2}{5} - 91,751$$

$$= 17,534$$

$$JKG = 18,016 - 17,534 = 0,482$$

db perlakuan $= 3 \times 4 - 1 = 11$
db galat $= 3 \times 4(5 - 1) = 48$
db total $= 5 \times 3 \times 4 - 1 = 49$

$$JK(A) = \frac{(14,812)^2 + (29,493)^2 + (29,891)^2}{5 \times 4} - 91,751$$

$$= 7,384$$

$$JK(B) = \frac{(12,508)^2 + (26,291)^2 + (17,419)^2 + (17,978)^2}{5 \times 3} - 91,751$$

$$= 6,535$$

$$JK(AB) = 17,534 - 7,384 - 6,535$$

$$= 3,615$$

db faktor A $= 3 - 1 = 2$
db faktor B $= 4 - 1 = 3$
db interaksi $(AB) = (3 - 1)(4 - 1) = 6$

Lampiran 9. Tabel analisa variansi klorofil b daun

Sumber keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	17,534	-		
A	2	7,384	3,692	369,2*	3,19
B	3	6,535	2,178	217,8*	2,80
AB	6	3,615	0,603	60,3*	2,30
Galat	48	0,482	0,010		

Catatan : tanda * menunjukkan ada beda nyata

Lampiran 10. Perhitungan CV $_{ex}$ klorofil b daun bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} \times 100\%$$

$$= \frac{\sqrt{0,010}}{1,237} \times 100\%$$

$$= 8,084\%$$

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{0,010}{5}\right]^{\frac{1}{2}}$$

$$= 0,044$$

P	Rp = rpS$\hat{y}$
2	(2,868) (0,044) = 0,126
3	(2,998) (0,044) = 0,132
4	(3,092) (0,044) = 0,136

Ranking klorofil b vs perlakuan

Rp	0,136	0,132	0,126	-
x	0,834	1,161	1,198	1,753
1,753	0,919*	0,592*	0,555*	0
1,198	0,364*	0,037	0	
1,161	0,327*	0		
0,834	0			
	a	bc	c	d

Ranking lamanya waktu

Rp	0,132	0,126	-
x	0,741	1,475	1,494
1,494	0,753*	0,019	0
1,475	0,734*	0	
0,741	0		
	p	pq	q

Lampiran 11. Tabel pengaruh variasi garam-garam Mg terhadap luas permukaan daun (cm^2)

| Ulangan | Minggu | Luas permukaan daun (cm^2) | | | | Σ | Rata-rata |
		Kontrol (Tnp Mg)	$MgSO_4$	$MgCl_2$	$Mg-EDTA$		
1.		10,08	16,16	13,84	13,46		
2.		9,77	16,61	14,21	13,97		
3.	1	9,45	16,28	13,92	13,69		
4.		9,92	16,10	13,99	14,08		
5.		9,70	15,92	14,09	13,54		
Σ		48,92	81,07	70,05	68,74	268,78	
x		9,78	16,21	14,01	13,75		13,44
1.		120,05	152,35	127,09	128,53		
2.		122,45	152,45	133,01	131,75		
3.	3	119,74	152,55	127,20	139,28		
4.		122,50	152,08	134,40	138,73		
5.		121,53	152,43	129,72	136,82		
Σ		606,27	761,86	651,42	675,11	2694,66	
x		121,25	152,37	130,28	135,02		134,73
1.		259,51	490,65	356,22	396,00		
2.		225,14	522,96	342,41	398,72		
3.	5	244,92	501,70	361,32	395,48		
4.		279,32	487,20	371,47	401,91		
5.		226,51	507,16	353,94	400,51		
Σ		1235,40	2509,67	1785,36	1992,62	7523,05	
x		247,08	501,93	357,07	398,52		376,15
Σ besar		1890,59	3352,60	2506,83	2736,47	10486,49	
x besar		126,04	223,50	167,12	182,43		174,77

$$FK = \frac{(10486,49)^2}{5 \times 3 \times 4} = 1832774,54$$

$$JKT = (10,08)^2 + (9,77)^2 + \ldots + (401,91)^2 + (400,51)^2 - 1832774,54$$

$$= 1536402,46$$

$$JKP = \frac{(48,92)^2 + (81,07)^2 + (1785,36)^2 \ldots + (1992,62)^2}{5} - 1832774,54$$

$$= 1533108,39$$

$$JKG = 1536402,46 - 1533108,39 = 3294,07$$

db perlakuan $= 3 \times 4 - 1 = 11$
db galat $= 3 \times 4 (5 - 1) = 48$
db total $= 5 \times 3 \times 4 - 1 = 59$

$$JK(A) = \frac{(268,78)^2 + (2694,66)^2 + (7523,05)^2}{5 \times 4} - 1832774,54$$

$$= 1363711,29$$

$$JK(B) = \frac{(1890,59)^2 + (3352,60)^2 + (2506,83)^2 + (2736,47)^2}{5 \times 3} - 1832774,54$$

$$= 162096,17$$

$$JK(AB) = 1533108,39 - 1363711,29 - 73006,93$$

$$= 162096,17$$

db perlakuan $= 3 - 1 = 2$
db galat $= 4 - 1 = 3$
db total $= (3 - 1)(4 - 1) = 6$

Lampiran 12. Tabel analisa variansi luas permukaan daun

Sumber keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	1533108,39	-		
A	2	1363711,29	681855,65	9935,24*	3,19
B	3	73006,93	24335,64	354,59*	2,80
AB	6	162096,17	27016,03	393,65*	2,30
Galat	48	3294,07	68,63		

Catatan: tanda * menunjukkan ada beda nyata

Lampiran 13. Perhitungan CV $_{ex}$ luas permukaan daun

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} X100\%$$

$$= \frac{\sqrt{68,63}}{174,77} X100\%$$

$$= 4,740\%$$

UJI DMRT

$$Sy = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{68,63}{5}\right]^{\frac{1}{2}}$$

$$= 3,71$$

P	$Rp = rpS\hat{y}$
2	$(2,868)(3,71) = 10,64$
3	$(2,998)(3,71) = 11,12$
4	$(3,092)(3,71) = 11,47$

Ranking Luas Permukaan Daun

Rp	11,47	11,12	10,64	-
x	126,04	167,12	182,43	223,50
223,50	97,46*	56,38*	41,07*	0
182,43	56,39*	15,31*	0	
167,12	41,08*	0		
126,04	0			
	a	b	c	d

Ranking Lamanya Waktu

Rp	11,12	10,64	-
x	13,44	134,73	376,15
376,15	362,71 *	241,42 *	0
134,73	121,29 *	0	
13,44	0		
	p	q	r

Lampiran 14. Tabel pengaruh variasi garam-garam Mg terhadap berat kering akar (gr)

Ulangan	Minggu	Berat kering akar (gr)				Σ	Rata-rata
		Kontrol (Tnp Mg)	$MgSO_4$	$MgCl_2$	Mg-EDTA		
1.		0,002	0,005	0,002	0,004		
2.		0,001	0,009	0,004	0,005		
3.	1	0,001	0,007	0,003	0,003		
4.		0,002	0,006	0,004	0,004		
5.		0,002	0,005	0,004	0,004		
Σ		0,008	0,032	0,017	0,020	0,077	
x		0,002	0,006	0,003	0,004		0,004
1.		0,033	0,051	0,052	0,057		
2.		0,040	0,067	0,053	0,058		
3.	3	0,044	0,087	0,051	0,055		
4.		0,043	0,077	0,055	0,053		
5.		0,043	0,059	0,057	0,063		
Σ		0,203	0,341	0,268	0,286	1,098	
x		0,041	0,068	0,054	0,057		0,0555
1.		0,149	0,271	0,186	0,218		
2.		0,154	0,253	0,190	0,208		
3.	5	0,120	0,262	0,187	0,202		
4.		0,158	0,242	0,194	0,203		
5.		0,131	0,258	0,186	0,206		
Σ		0,712	1,286	0,943	1,037	3,970	
x		0,142	0,257	0,189	0,207		0,199
Σ besar		0,923	1,659	1,228	1,343	5,153	
x besar		0,062	0,111	0,082	0,089		0,086

$$FK = \frac{(5{,}153)^2}{5 \times 3 \times 4} = 0{,}443$$

$$JKT = (0{,}002)^2 + (0{,}001)^2 + \ldots\ldots + (0{,}203)^2 + (0{,}206)^2 - 0{,}443 = 0{,}447$$

$$JKP = \frac{(0{,}008)^2 + (0{,}203)^2 + \ldots + (0{,}943)^2 + (1{,}037)^2}{5} - 0{,}443 = 0{,}445$$

$$JKG = 0{,}447 - 0{,}445 = 0{,}002$$

db perlakuan $= 3 \times 4 - 1 = 11$

db galat $= 3 \times 4(5-1) = 48$

db total $= 5.3.4 - 1 = 59$

$$JK\ (A) = \frac{(0{,}077)^2 + (1{,}098)^2 + (3{,}970)^2}{5 \times 4} - 0{,}443 = 0{,}406$$

$$JK\ (B) = \frac{(0{,}923)^2 + (1{,}659)^2 + (1{,}228)^2 + (1{,}343)^2}{5 \times 3} - 0{,}443$$
$$= 0{,}461 - 0{,}443 = 0{,}018$$

$$JK(AB) = 0{,}445 - 0{,}406 - 0{,}018 = 0{,}021$$

db faktor A $= 3 - 1 = 2$

db faktor B $= 4 - 1 = 3$

db interaksi (AB) $= (3-1)(4-1) = 6$

Lampiran 15. Tabel analisa variansi berat kering akar

Sumber keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	0,445	-		
A	2	0,406	0,203	4833,333*	3,19
B	3	0,018	0,006	142,857*	2,80
AB	6	0,021	0,0035	83,333*	2,30
Galat	48	0,002	0,000042		

Catatan : tanda * menunjukkan ada beda nyata

Lampiran 16. Perhitungan CV $_{ex}$ berat kering akar bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} \times 100\%$$

$$= \frac{\sqrt{0,000042}}{0,086} \times 100\%$$

$$= 7,537\%$$

UJI DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{0,000042}{5}\right]^{\frac{1}{2}}$$

$$= 0,00290$$

P	Rp = rp$S\hat{y}$
2	(2,868) (0,00290) = 0,0083
3	(2,998) (0,00290) = 0,0087
4	(3,092) (0,00290) = 0,0090

Ranking Berat Kering Akar

Rp	0,0090	0,0087	0,0083	-
x	0,062	0,082	0,089	0,110
0,110	0,048*	0,028*	0,021*	0
0,089	0,027*	0,007	0	
0,082	0,020*	0		
0,062	0			
	a	bc	c	d

Ranking lamanya waktu

Rp	0,0090	0,0087	-
x	0,0039	0,0549	0,1989
0,199	0,195*	0,144*	0
0,055	0,051*	0	
0,004	0		
	p	q	r

Lampiran 17. Tabel pengaruh variasi garam-garam Mg terhadap berat kering batang (gr)

Ulangan	Minggu	Berat kering batang (gr)				Σ	Rata-rata
		Kontrol (Tnp Mg)	MgSO₄	MgCl₂	Mg-EDTA		
1.		0,011	0,014	0,010	0,015		
2.		0,012	0,012	0,013	0,011		
3.	1	0,009	0,013	0,011	0,012		
4.		0,010	0,014	0,013	0,013		
5.		0,011	0,013	0,011	0,013		
Σ		0,053	0,066	0,058	0,064	0,241	
x		0,011	0,013	0,012	0,013		0,012
1.		0,118	0,155	0,138	0,171		
2.		0,156	0,186	0,156	0,167		
3.	3	0,169	0,140	0,158	0,171		
4.		0,140	0,172	0,147	0,165		
5.		0,101	0,187	0,173	0,152		
Σ		0,684	0,840	0,772	0,826	3,122	
x		0,137	0,168	0,154	0,165		0,156
1.		0,398	0,656	0,526	0,568		
2.		0,365	0,625	0,525	0,575		
3.	5	0,319	0,648	0,509	0,528		
4.		0,341	0,645	0,507	0,592		
5.		0,353	0,614	0,518	0,561		
Σ		1,776	3,188	2,585	2,824	10,373	
x		0,355	0,638	0,517	0,565		0,519
Σ besar		2,513	4,094	3,415	3,714	13,736	
x besar		0,168	0,273	0,228	0,248		0,229

$$FK = \frac{(13,736)}{5 \times 3 \times 4} = 3,145$$

$$JKT = (0,011)^2 + (0,012)^2 + \ldots + (0,528)^2 + (0,561)^2 - 3,145$$

$$= 2,956$$

$$JKP = \frac{(0,053)^2 + (0,684)^2 + \ldots + (2,585)^2 + (2,824)^2}{5} - 3,145$$

$$= 2,943$$

$$JKG = 2,956 - 2,943 = 0,013$$

db perlakuan $= 3 \times 4 - 1 = 11$
db galat $= 3 \times 4(5-1) = 48$
db total $= 5.3.4 - 1 = 59$

$$JK\ (A) = \frac{(0,241)^2 + (3,122)^2 + (10,373)^2}{5 \times 4} - 3,145$$

$$= 2,725$$

$$JK\ (B) = \frac{(2,513)^2 + (4,094)^2 + (3,415)^2 + (3,714)^2}{5 \times 3} - 3,145$$

$$= 0,090$$

$$JK(AB) = 2,943 - 2,725 - 0,090 = 0,128$$

db faktor A $= 3 - 1 = 2$

db faktor B $= 4 - 1 = 3$

db interaksi $(AB) = (3-1)(4-1) = 6$

Lampiran 18. Tabel analisa variansi berat kering batang

Sumber keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	2,943	-		
A	2	2,725	1,363	5048,148*	3,19
B	3	0,090	0,03	111,111*	2,80
AB	6	0,128	0,021	77,778	2,30
Galat	48	0,013	0,00027		

Catatan : tanda * menunjukkan ada beda nyata

Lampiran 19. Perhitungan CV_{ex} berat kering batang tanaman bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\bar{x}} X100\%$$

$$= \frac{\sqrt{0,00027}}{0,229} X100\%$$

$$= 7,175\%$$

UJI DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{0,00027}{5}\right]^{\frac{1}{2}}$$

$$= 0,0073$$

P	$Rp = rpS\hat{y}$
2	$(2,868)(0,0073) = 0,021$
3	$(2,998)(0,0073) = 0,022$
4	$(3,092)(0,0073) = 0,023$

Ranking Berat Kering Batang

Rp	0,023	0,022	0,021	-
x	0,168	0,228	0,248	0,273
0,273	0,105*	0,045*	0,025*	0
0,248	0,079*	0,020	0	
0,228	0,060*	0		
0,168	0			
	a	bc	c	d

Ranking lamanya waktu

Rp	0,022	0,021	-
x	0,012	0,156	0,519
0,519	0,507*	0,363*	0
0,156	0,144*	0	
0,012	0		
	p	q	r

Lampiran 20. Tabel pengaruh variasi garam-garam Mg terhadap berat kering daun (gr)

Ulangan	Minggu	Berat kering daun (gr)				Σ	Rata-rata
		Kontrol (Tnp Mg)	$MgSO_4$	$MgCl_2$	Mg-EDTA		
1.		0,015	0,018	0,015	0,019		
2.		0,017	0,018	0,019	0,020		
3.	1	0,017	0,019	0,017	0,017		
4.		0,016	0,019	0,017	0,018		
5.		0,016	0,019	0,018	0,017		
Σ		0,081	0,093	0,086	0,091	0,351	
x		0,016	0,019	0,002	0,018		0,018
1.		0,167	0,248	0,181	0,227		
2.		0,155	0,237	0,197	0,219		
3.	3	0,125	0,232	0,185	0,222		
4.		0,165	0,258	0,181	0,222		
5.		0,112	0,238	0,201	0,213		
Σ		0,724	1,213	0,945	0,103	3,985	
x		0,145	0,243	0,189	0,221		0,199
1.		0,349	0,646	0,473	0,564		
2.		0,356	0,621	0,476	0,540		
3.	5	0,317	0,637	0,481	0,542		
4.		0,313	0,618	0,486	0,523		
5.		0,367	0,629	0,479	0,515		
Σ		1,702	3,151	2,413	2,684	9,950	
x		0,340	0,630	0,483	0,537		0,497
Σ besar		2,507	4,457	3,444	3,878	14,286	
x besar		0,167	0,297	0,230	0,258		0,238

$$FK = \frac{(14{,}286)^2}{5 \times 3 \times 4} = 3{,}401$$

$$JKT = (0{,}015)^2 + (0{,}017)^2 + \ldots + (0{,}515)^2 - 3{,}401$$

$$= 6{,}006 - 3{,}401 = 2{,}605$$

$$JKP = \frac{(0{,}081)^2 + \ldots + (0{,}515)^2}{5} - 3{,}401$$

$$= 2{,}597$$

$$JKG = 2{,}605 - 2{,}597 = 0{,}008$$

db perlakuan $= 3 \times 4 - 1 = 11$
db galat $= 3 \times 4(5-1) = 48$
db total $= 5.3.4 - 1 = 59$

$$JK\ (A) = \frac{(0{,}351)^2 + (3{,}985)^2 + (9{,}950)^2}{5 \times 4} - 3{,}401$$

$$= 2{,}349$$

$$JK\ (B) = \frac{(2{,}507)^2 + (4{,}457)^2 + (3{,}444)^2 + (3{,}878)^2}{5 \times 3} - 3{,}401$$

$$= 0{,}136$$

$$JK(AB) = 2{,}597 - 2{,}349 - 0{,}136 = 0{,}112$$

db faktor A $= 3 - 1 = 2$

db faktor B $= 4 - 1 = 3$

db interaksi (AB) $= (3-1)(4-1) = 6$

Lampiran 21. Tabel analisa variansi anava berat kering daun

Sbr keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	2,597	-		
A	2	2,349	1,175	5875*	3,19
B	3	0,136	0,045	225*	2,80
AB	6	0,112	0,019	95*	2,30
Galat	48	0,008	0,0002		

Catatan: tanda * menunjukkan ada beda nyata

Lampiran 22. Perhitungan CV_{ex} berat kering daun tanaman bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} \times 100\%$$

$$= \frac{\sqrt{0,0002}}{0,238} \times 100\%$$

$$= 5,942\%$$

UJI DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{½}$$

$$= \left[\frac{0,0002}{5}\right]^{½}$$

$$= 0,02$$

$$Rp = rpS\hat{y}$$

P	
2	$(2,868)(0,02) = 0,057$
3	$(2,998)(0,02) = 0,060$
4	$(3,092)(0,02) = 0,062$

Ranking Berat Kering Daun

Rp	0,062	0,060	0,057	
x	0,167	0,230	0,259	0,297
0,297	0,130*	0,068*	0,039	0
0,259	0,092*	0,029	0	
0,230	0,063*	0		
0,167	0			
	a	b	bc	c

Ranking Lamanya Waktu

Rp	0,060	0,057	-
x	0,018	0,199	0,497
0,497	0,321*	0,298*	0
0,199	0,181*	0	
0,176	0		
	p	q	r

Lampiran 23. Tabel pengaruh variasi garam-garam Mg terhadap berat kering total (gr/tanaman)

Ulangan	Minggu	Berat kering total (gr/tanaman)				Σ	Rata-rata
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA		
1.		0,028	0,037	0,027	0,038		
2.		0,030	0,039	0,036	0,036		
3.	1	0,027	0,039	0,031	0,032		
4.		0,028	0,039	0,034	0,035		
5.		0,029	0,037	0,033	0,034		
Σ		0,142	0,191	0,161	0,175	0,669	
x		0,028	0,038	0,032	0,035		0,033
1.		0,318	0,454	0,371	0,455		
2.		0,351	0,490	0,406	0,444		
3.	3	0,338	0,459	0,394	0,448		
4.		0,348	0,507	0,383	0,440		
5.		0,256	0,484	0,431	0,428		
Σ		1,611	2,394	1,985	2,215	8,205	
x		0,322	0,479	0,397	0,443		0,410
1.		0,896	1,573	1,185	1,35		
2.		0,875	1,499	1,191	1,323		
3.	5	0,756	1,547	1,177	1,272		
4.		0,812	1,505	1,187	1,318		
5.		0,851	1,501	1,183	1,282		
Σ		4,190	7,625	5,923	6,545	24,283	
x		0,838	1,525	1,188	1,309		1,215
Σ besar		5,943	10,210	8,069	8,935	33,157	
x besar		0,396	0,681	0,539	0,596		0,553

$$FK = \frac{(33,157)^2}{60} = 18,323$$

$$JKT = (0,028)^2 + \ldots + (1,282)^2 - 18,323 = 15,889$$

$$JKP = \frac{(0,142)^2 + \ldots + (6,545)^2}{5} - 18,323 = 15,857$$

$$JKG = 15,889 - 15,857 = 0,032$$

db perlakuan $= 3 \times 4 - 1 = 11$

db galat $= 3 \times 4(5-1) = 48$

db total $= 5.3.4 - 1 = 59$

$$JK\ (A) = \frac{(0,669)^2 + (8,205)^2 + (24,283)^2}{5 \times 4} - 18,323 = 14,549$$

$$JK\ (B) = \frac{(5,943)^2 + (10,210)^2 + (8,069)^2 + (8,935)^2}{5 \times 3} - 18,323 = 0,644$$

$$JK(AB) = 15,857 - 14,549 - 0,644$$

$$= 0,664$$

db faktor A $= 3 - 1 = 2$

db faktor B $= 4 - 1 = 3$

db interaksi (AB) $= (3-1)(4-1) = 6$

Lampiran 24. Tabel analisa variansi berat kering total

Sbr keragaman	db	JK	KT	F hit	F tabel
Perlakuan	11	15,857	-	-	
A	2	14,549	7,273	1228,547*	3,19
B	3	0,644	0,215	36,317*	2,80
AB	6	0,664	0,111	18,75*	2,30
Galat	48	0,032	0,00067		

Catatan: tanda * menunjukkan ada beda nyata

Lampiran 25. Perhitungan CV_{ex} berat kering total tanaman bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} \times 100\%$$

$$= \frac{\sqrt{0,00067}}{0,553} \times 100\%$$

$$= 4,681\%$$

UJI DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{0,00067}{5}\right]^{\frac{1}{2}}$$

$$= 0,011$$

$$Rp = rpS\hat{y}$$

P
2   (2,868) (0,011) = 0,031
3   (2,998) (0,011) = 0,033
4   (3,092) (0,011) = 0,034

Ranking berat kering total

Rp	0,034	0,033	0,031	-
x	0,396	0,537	0,596	0,681
0,681	0,285*	0,144*	0,085*	0
0,596	0,200*	0,059*	0	
0,537	0,141*	0		
0,396	0			
	a	b	c	d

Ranking Lamanya Waktu

Rp	0,033	0,031	-
x	0,033	0,410	1,215
1,215	1,182*	0,804*	0
0,410	0,377*	0	
0,033	0		
	p	q	r

Lampiran 26. Tabel pengaruh variasi garam-garam Mg terhadap jumlah daun

Ulangan	Minggu	Jumlah daun				Σ	Rata-rata
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA		
1.		5	7	5	6		
2.		5	8	7	7		
3.	1	4	8	5	7		
4.		5	8	6	7		
5.		4	7	6	6		
Σ		23	38	29	30	120	
x		5	8	6	7		7
1.		8	9	9	9		
2.		9	11	9	10		
3.	3	7	12	9	11		
4.		9	9	10	10		
5.		8	10	9	10		
Σ		41	54	46	50	191	
x		8	11	9	10		10
1.		11	14	13	13		
2.		10	18	12	14		
3.	5	11	15	14	12		
4.		12	14	15	16		
5.		22	17	13	14		
Σ		45	78	67	69	159	
x		9	16	13	14		13
Σ besar		109	170	142	149	570	
x besar		7	12	9	10		10

$$\textbf{FK} \quad = \frac{(570)^2}{60} = 5415$$

$$\textbf{JKT} = (5)^2 + (5)^2 + \dots + (14)^2 - 5415 = 6339 - 5415 = 924$$

$$\textbf{JKP} = \frac{(23)^2 + (41)^2 \dots + (67)^2 + (69)^2}{5} - 5415 = 642,2$$

$$JKG \quad = 924 - 64,2 = 281,8$$

db perlakuan $= 3 \times 4 - 1 = 11$
db galat $\quad = 3 \times 4(5-1) = 48$
db total $\quad = 5.3.4 - 1 = 59$

$$\textbf{JK (A)} = \frac{(120)^2 + (191)^2 + (259)^2}{5 \times 4} - 5415$$

$$= 483,1$$

$$\textbf{JK (B)} = \frac{(109)^2 + (170)^2 + (142)^2 + (149)^2}{5 \times 3} - 5415 = 128,07$$

$$JK(AB) = 642,2 - 483,1 - 128,07$$

$$= 31,03$$

db faktor A $= 3 - 1 = 2$

db faktor B $= 4 - 1 = 3$

db interaksi (AB) $= (3 - 1)(4 - 1) = 6$

Lampiran 27. Tabel analisa variansi jumlah daun

Sbr keragaman	db	JK	KT	F hitung	F tabel
Perlakuan	11	642,2	-	-	
A	2	483,1	241,55	41,14*	3,19
B	3	128,07	42,69	7,27*	2,80
AB	6	31,03	5,172	0,88	2,30
Galat	48	281,8	5,871		

Catatan: tanda * menunjukkan ada beda nyata

Lampiran 28. Perhitungan CV_{ex} jumlah daun tanaman bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\bar{\bar{x}}} \times 100\%$$

$$= \frac{\sqrt{5,871}}{10} \times 100\%$$

$$= 24,230\%$$

UJI DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

$$= \left[\frac{5,871}{5}\right]^{\frac{1}{2}}$$

$$= 1,084$$

$$Rp = rpS\hat{y}$$

P		
2	$(2,868)(1,084) =$	3,109
3	$(2,998)(1,084) =$	3,250
4	$(3,092)(1,084) =$	3,352

Ranking ∑ Daun

Rp	3,352	3,250	3,109	-
x	7	9	10	12
12	5*	3	2	0
10	3	1	0	
9	2	0		
7	0			
	a	b	b	b

Ranking Lamanya Waktu

Rp	3,250	3,109	-
x	7	10	13
13	6*	3	0
10	3	0	
7	0		
	p	q	q

Lampiran 29. Foto tanaman bayam usia 1 minggu

Lampiran 30. Foto tanaman bayam usia 3 minggu

Lampiran 31. Foto tanaman bayam usia 5 minggu

Lampiran 32. Tabel ANR total daun (μ mol NO_2^- /g/ jam)

Ulangan	Minggu	ANR total (μ mol NO_2^- /g/jam) Kontrol (Tnp Mg)	$MgSO_4$	$MgCl_2$	Mg-EDTA	Σ	Rata-rata
1		0,330	2,531	1,531	3,014		
2		0,329	2,437	1,547	3,065		
3	1	0,364	3,112	2,023	1,750		
4		0,422	3,315	1,840	2,157		
5		0,441	3,845	2,024	2,043		
Σ		1,887	15,240	8,965	12,029	38,121	
x		0,377	3,048	1,793	2,406		1,906
1		9,090	19,248	11,748	17,996		
2		8,138	21,949	12,372	16,346		
3	3	7,398	18,562	11,860	16,442		
4		7,169	23,013	10,718	16,342		
5		7,199	19,444	10,485	16,806		
Σ		38,995	102,253	57,184	83,933	282,365	
x		7,799	20,451	11,434	16,787		14,118
1		10,553	54,831	24,919	36,696		
2		16,791	51,646	26,130	38,263		
3	5	11,461	44,412	32,289	38,591		
4		9,054	44,021	31,071	40,668		
5		18,979	48,241	28,370	34,052		
Σ		66,837	243,151	142,779	188,269	641,036	
x		13,367	48,630	28,556	37,654		32,052
Σ besar		107,719	360,644	208,928	284,231	961,522	
x besar		7,181	24,043	13,928	18,949		16,025

$$FK = \frac{Y^2}{r.a.b} = \frac{(961,522)^2}{5 \times 3 \times 4} = 15408,743$$

$$JKT = (0,330)^2 + \ldots + (34,052)^2 - 15408,743$$
$$= 28673,270 - 15408,743$$
$$= 13274,527$$

$$JKP = \frac{(1,887)^2 + \ldots + (188,269)^2}{5} - 15408,743$$
$$= 13025,774$$

$$JKG = JKT - JKP$$
$$= 13274,527 - 13025,774$$
$$= 248,753$$

db perlakuan $= 3 \times 4 - 1 = 11$

db galat $= 3 \times 4 (5 - 1) = 48$

db total $= 5 \times 3 \times 4 - 1 = 59$

$$JK(A) = \frac{\Sigma(a)^2}{r \times b} - FK$$

$$= \frac{(38,121)^2 + (282,365)^2 + (641,036)}{5 \times 4} - 15408,743$$

$$= 9196,775$$

$$JK(B) = \frac{\Sigma(b)^{2=}}{r \times a} - FK$$

$$= \frac{(107,719)^2 + (360,644)^2 + (208,928)^2 + (284,231)^2}{5 \times 3} - 15408,743$$

$$= 2331,633$$

$$JK\,(AB)= JKP - JK\,(A) - JK\,(B)$$
$$= 13025,774 - 9196,775 - 2331,633$$
$$= 1497,366$$

db faktor $A = a - 1 = 3 - 1 = 2$

db faktor $B = b - 1 = 4 - 1 = 3$

db interaksi $(AB) = (a - 1)(b - 1) = (3 - 1)(4 - 1) = 2 \times 3 = 6$

Lampiran 33. Tabel Analisa variansi Aktivitas Nitrat Reduktase total daun bayam

Sumber Keragaman	db	JK	KT	F hitung	F tabel
Perlakuan	11	13025,774	-	-	
A	2	9196,775	4598,387	887,377*	3,19
B	3	2331,633	777,261	149,983*	2,80
AB	6	1497,366	249,561	48,159*	2,30
Galat	48	248,753	5,182		

Catatan : tanda * menunjukkan ada beda nyata

Lampiran 34. Perhitungan CV $_{ex}$ Aktivitas Nitrat Reduktase total daun bayam

$$CV_{ex} = \frac{\sqrt{MSE}}{\overline{x}} \times 100\%$$

$$= \frac{\sqrt{5,182}}{16,025} \times 100\%$$

$$= 14,205\%$$

Uji DMRT

$$S\hat{y} = \left[\frac{KTG}{r}\right]^{\frac{1}{2}}$$

P	$Rp = rpS\hat{y}$
2	$(2,868)\,(1,018) = 2,920$
3	$(2,998)\,(1,018) = 3,052$
4	$(3,092)\,(1,018) = 3,148$

$$= \left[\frac{5,182}{5}\right]^{\frac{1}{2}}$$

$$= \sqrt{1,036}$$

$$= 1,018$$

Ranking ANR total daun vs perlakuan

Rp	3,148	3,052	2,920	-
X	7,181	13,928	18,949	24,043
24,043	16,862*	10,115*	5,094*	0
18,949	11,769*	5,021*		
13,928	6,747*	0		
7,181	0			
	a	b	c	d

Ranking lamanya waktu pengamatan

Rp	3,052	2,920	-
X	1,906	14,118	32,052
32,052	30,146*	17,934*	0
14,118	12,212*	0	
1,906	0		
	p	q	r

Lampiran 35. Tabel rerata berat basah daun (gr)

Minggu	Berat basah (gr)				Rata-rata
	Kontrol	MgSO$_4$	MgCl$_2$	Mg-EDTA	
1	0,151	0,271	0,349	0,257	0,257
3	1,750	2,466	1,857	2,262	1,667
5	3,726	6,283	4,827	5,240	5,109
Rata-rata	1,876	3,007	2,344	2,586	

Lampiran 36. Tabel ANR daun (μ mol NO$_2^-$ / gr /jam)

Minggu	ANR daun (μ mol NO$_2^-$ / gr /jam)				Rata-rata
	Kontrol	MgSO$_4$	MgCl$_2$	Mg-EDTA	
1	2,500	11,303	5,148	9,345	7,074
3	4,451	8,331	6,232	7,430	6,611
5	3,521	7,740	5,922	7,218	6,100
Rata-rata	3,491	9,125	5,767	7,998	

Lampiran 37. Tabel ANR total daun (μ mol NO$_2^-$ / gr /jam)

Minggu	ANR total daun (μ mol NO$_2^-$ / gr /jam)				Rata-rata
	Kontrol	MgSO$_4$	MgCl$_2$	Mg-EDTA	
1	0,377	3,048	1,793	2,406	1,906[p]
3	7,799	20,451	11,343	16,787	14,118[q]
5	13,367	48,630	28,556	37,654	32,052[r]
Rata-rata	7,181[a]	24,043[d]	13,928[b]	18,949[c]	

Lampiran 38. Tabel data mentah uji ANR pada $\lambda = 540$ nm

Ulangan	Minggu	ANR			
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA
1		0,063	0,339	0,129	0,270
2		0,061	0,319	0,121	0,267
3	1	0,068	0,286	0,168	0,239
4		0,060	0,297	0,151	0,276
5		0,083	0,364	0,162	0,275
1		0,133	0,223	0,190	0,216
2		0,134	0,258	0,187	0,211
3	3	0,125	0,252	0,186	0,208
4		0,116	0,222	0,178	0,198
5		0,124	0,228	0,144	0,222
1		0,086	0,226	0,175	0,181
2		0,109	0,241	0,163	0,205
3	5	0,098	0,198	0,175	0,201
4		0,087	0,209	0,163	0,219
5		0,120	0,225	0,165	0,219

Lampiran 39. Tabel data mentah uji klorofil pada $\lambda = 644$ nm

Ulangan	Minggu	Klorofil			
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA
1		0,423	0,515	0,471	0,498
2		0,408	0,540	0,498	0,543
3	1	0,422	0,577	0,478	0,556
4		0,402	0,575	0,460	0,562
5		0,411	0,518	0,487	0,511
1		0,614	1,662	1,038	1,184
2		0,532	1,485	1,064	1,121
3	3	0,537	1,896	1,065	1,167
4		0,558	1,741	1,115	1,116
5		0,568	1,533	1,103	1,129
1		0,945	1,544	1,025	1,115
2		0,858	1,556	1,008	1,125
3	5	0,801	1,557	1,091	1,122
4		0,857	1,583	1,040	1,120
5		0,898	1,557	1,098	1,127

Lampiran 40. Tabel data mentah uji klorofil daun pada $\lambda = 663$ nm

Ulangan	Minggu	klorofil			
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA
1		0,449	0,485	0,477	0,488
2		0,447	0,479	0,475	0,476
3	1	0,429	0,489	0,460	0,491
4		0,449	0,480	0,476	0,475
5		0,439	0,484	0,463	0,483
1		1,414	1,990	1,857	1,989
2		1,476	2,011	1,855	1,999
3	3	1,387	2,000	1,859	2,005
4		1,402	2,009	1,847	2,007
5		1,387	2,001	1,851	1,993
1		0,866	2,535	1,947	2,369
2		0,858	2,571	1,922	2,412
3	5	0,898	2,583	1,970	2,306
4		0,899	2,526	1,944	2,400
5		0,898	2,540	1,969	2,369

Lampiran 41. Tabel data mentah berat basah daun (gr)

Ulangan	Minggu	Berat basah daun (gr)			
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA
1		0,149	0,212	0,337	0,317
2		0,153	0,217	0,363	0,326
3	1	0,152	0,309	0,342	0,208
4		0,150	0,317	0,346	0,222
5		0,151	0,300	0,355	0,211
1		1,941	2,456	1,756	2,366
2		1,725	2,416	1,879	2,200
3	3	1,681	2,092	1,811	2,245
4		1,755	2,944	1,771	2,344
5		1,649	2,422	2,068	2,156
1		3,485	6,890	4,044	5,758
2		4,375	6,086	4,553	5,301
3	5	3,321	6,370	5,240	5,453
4		2,956	5,982	5,414	5,274
5		4,492	6,088	4,883	4,416

Lampiran 42. Tabel data mentah berat basah batang (gr)

Ulangan	Minggu	Berat basah batang (gr)			
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA
1		0,175	0,197	0,159	0,198
2		0,179	0,192	0,166	0,189
3	1	0,148	0,195	0,173	0,191
4		0,149	0,196	0,170	0,195
5		0,175	0,193	0,164	0,192
1		2,158	2,353	2,332	3,319
2		2,337	2,875	2,590	2,972
3	3	2,836	2,285	2,658	2,988
4		2,289	2,801	2,495	2,720
5		2,021	2,925	2,711	2,339
1		5,116	8,277	7,551	6,618
2		4,897	5,710	7,297	7,256
3	5	3,673	8,710	6,090	2,054
4		4,081	8,160	4,754	7,567
5		4,741	5,142	6,550	6,445

Lampiran 43. Tabel data mentah berat basah akar (gr)

Ulangan	Minggu	Berat basah akar (gr)			
		Kontrol (Tnp Mg)	MgSO$_4$	MgCl$_2$	Mg-EDTA
1		0,050	0,054	0,049	0,052
2		0,045	0,057	0,052	0,054
3	1	0,045	0,055	0,052	0,051
4		0,049	0,055	0,053	0,052
5		0,049	0,053	0,053	0,053
1		0,581	0,564	0,595	0,623
2		0,598	0,976	0,605	0,684
3	3	0,710	1,161	0,580	0,634
4		0,681	1,004	0,606	0,622
5		0,691	0,795	0,738	0,755
1		1,300	3,415	3,201	2,251
2		1,517	2,224	2,302	2,763
3	5	1,108	3,339	1,731	2,444
4		1,588	2,024	1,995	2,778
5		1,253	2,308	2,019	2,150

Lampiran 44. Perhitungan banyaknya garam $MgSO_4$, $MgCl_2$ dan Mg-EDTA yang

dibutuhkan

a. Mr. $MgSO_4$ = 120

$\%$ Mg dalam $MgSO_4 = \dfrac{24}{120}$ x 100 % = 20 %

30 ppm Mg dalam $MgSO_4$ ⟶ Mg ada = 20 % x 30 ppm = 6 ppm

Supaya [Mg]-nya 30 ppm ⟶ berarti ppm $MgSO_4$ x 5

30 ppm $MgSO_4$ x 5 = 150 ppm (0,150 gr/lt)

b. Mr. $MgCl_2$ = 94

$\%$ Mg dalam $MgCl_2 = \dfrac{35}{94}$ x 100 % = 37,23 %

30 ppm Mg dalam $MgCl_2$ ⟶ Mg ada = 37,23 % x 30 ppm = 11,169 ppm

Supaya [Mg]-nya 30 ppm ⟶ berarti ppm $MgCl_2$ x 2,686

30 ppm $MgCl_2$ x 2,686 = 80,58 ppm (0,08058 gr/lt)

c. MgO dan Na_2EDTA ⟶ Mg-EDTA

Mg dalam MgO = $\dfrac{24}{40}$ x 100 % = 60 %

30 ppm Mg dalam MgO = $\dfrac{30}{60\%}$ x 100 % = 50 ppm (0,05 gr/lt)

Na_2EDTA = 0,05 gr/lt