

**Lampiran 1**  
**Hasil Sidik Ragam Anova**

Sidik ragam anova Suhu Tanah 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	3.26943590	0.27245299	1.10	0.3968
R	4	0.84410256	0.21102564	0.86	0.5033
P	2	0.06513889	0.03256944	0.13	0.8769
R*P	6	2.36019444	0.39336574	1.60	0.1884
Error	26	6.41133333	0.24658974		
Corrected Total	38	9.68076923			
R-Square 0.337725					

Sidik ragam anova Suhu Tanah 21 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	3.67982564	0.30665214	1.25	0.3065
R	4	0.84671453	0.21167863	0.86	0.5008
P	2	0.13513889	0.06756944	0.27	0.7621
R*P	6	2.69797222	0.44966204	1.83	0.1328
Error	26	6.39946667	0.24613333		
Corrected Total	38	10.07929231			
R-Square 0.365088					

Sidik ragam anova Suhu Tanah 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	4.19752308	0.34979359	1.52	0.1779
R	4	1.67252308	0.41813077	1.82	0.1547
P	2	0.04477222	0.02238611	0.10	0.9074
R*P	6	2.48022778	0.41337130	1.80	0.1379
Error	26	5.96460000	0.22940769		
Corrected Total	38	10.16212308			
R-Square 0.413056					

Sidik ragam anova pH Tanah 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	0.04130769	0.00344231	1.67	0.1334
R	4	0.02812991	0.00703248	3.41	0.0228
P	2	0.00750556	0.00375278	1.82	0.1824
R*P	6	0.00567222	0.00094537	0.46	0.8327
Error	26	0.05366667	0.00206410		
Corrected Total	38	0.09497436			
R-Square 0.434935					

Sidik ragam anova pH Tanah 21 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	0.07789231	0.00649103	0.74	0.7027
R	4	0.05349231	0.01337308	1.52	0.2250
P	2	0.00457222	0.00228611	0.26	0.7729
R*P	6	0.01982778	0.00330463	0.38	0.8875
Error	26	0.22846667	0.00878718		
Corrected Total	38	0.30635897			
R-Square 0.254252					

Sidik ragam anova pH Tanah 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	0.04522564	0.00376880	1.42	0.2196
R	4	0.01649231	0.00412308	1.55	0.2167
P	2	0.00755000	0.00377500	1.42	0.2596
R*P	6	0.02118333	0.00353056	1.33	0.2799
Error	26	0.06906667	0.00265641		
Corrected Total	38	0.11429231			
R-Square 0.395702					

Sidik ragam anova kelembapan Tanah 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	45.6410256	3.8034188	0.96	0.5106
R	4	20.75213675	5.18803419	1.31	0.2940
P	2	1.55555556	0.77777778	0.20	0.8235
R*P	6	23.33333333	3.88888889	0.98	0.4595
Error	26	103.3333333	3.9743590		
Corrected Total	38	148.9743590			
R-Square 0.306368					

Sidik ragam anova kelembapan Tanah 21 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	48.30769231	4.02564103	2.09	0.0559
R	4	22.30769231	5.57692308	2.90	0.0414
P	2	2.16666667	1.08333333	0.56	0.5761
R*P	6	23.83333333	3.97222222	2.07	0.0925
Error	26	50.00000000	1.92307692		
Corrected Total	38	98.30769231			
R-Square 0.491393					

Sidik ragam anova kelembapan Tanah 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	79.33333333	6.61111111	1.10	0.4023
R	4	49.77777778	12.44444444	2.07	0.1145
P	2	8.38888889	4.19444444	0.70	0.5076
R*P	6	21.16666667	3.52777778	0.59	0.7387
Error	26	156.6666667	6.0256410		

Corrected Total	38	236.0000000			
R-Square 0.336158					

Sidik ragam anova tinggi tanaman 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	106.8530769	8.9044231	8.25	<.0001
R	4	102.5706047	25.6426512	23.75	<.0001
P	2	0.2250042	0.1125021	0.10	0.9014
R*P	6	4.0574681	0.6762447	0.63	0.7077
Error	26	28.0694167	1.0795929		
Corrected Total	38	134.9224936			

R-Square 0.791959

Sidik ragam anova tinggi tanaman 14 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	148.0087590	12.3340632	7.45	<.0001
R	4	129.0580701	32.2645175	19.48	<.0001
P	2	3.3733389	1.6866694	1.02	0.3751
R*P	6	15.5773500	2.5962250	1.57	0.1964
Error	26	43.0584000	1.6560923		
Corrected Total	38	191.0671590			

R-Square 0.774643

Sidik ragam anova tinggi tanaman 21 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	196.8879897	16.4073325	6.36	<.0001
R	4	156.3811231	39.0952808	15.16	<.0001
P	2	14.2051167	7.1025583	2.75	0.0823
R*P	6	26.3017500	4.3836250	1.70	0.1611
Error	26	67.0698000	2.5796077		
Corrected Total	38	263.9577897			

R-Square 0.745907

Sidik ragam anova tinggi tanaman 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	279.1137077	23.2594756	5.01	0.0003
R	4	216.6433521	54.1608380	11.67	<.0001
P	2	34.8421556	17.4210778	3.75	0.0370
R*P	6	27.6282000	4.6047000	0.99	0.4512
Error	26	120.6974667	4.6422103		
Corrected Total	38	399.8111744			

R-Square 0.698114

Sidik ragam anova tinggi tanaman 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	287.3615744	23.9467979	5.69	0.0001
R	4	233.1229077	58.2807269	13.85	<.0001

P	2	32.1144222	16.0572111	3.81	0.0353
R*P	6	22.1242444	3.6873741	0.88	0.5259
Error	26	109.4416000	4.2092923		
Corrected Total	38	396.8031744			
R-Square 0.724192					

Sidik ragam anova jumlah daun 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	2.68974359	0.22414530	5.20	0.0002
R	4	2.35196581	0.58799145	13.65	<.0001
P	2	0.04222222	0.02111111	0.49	0.6181
R*P	6	0.29555556	0.04925926	1.14	0.3658
Error	26	1.12000000	0.04307692		
Corrected Total	38	3.80974359			
R-Square 0.706017					

Sidik ragam anova jumlah daun 14 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	10.44769231	0.87064103	7.19	<.0001
R	4	9.86102564	2.46525641	20.37	<.0001
P	2	0.06888889	0.03444444	0.28	0.7546
R*P	6	0.51777778	0.08629630	0.71	0.6423
Error	26	3.14666667	0.12102564		
Corrected Total	38	13.59435897			
R-Square 0.768531					

Sidik ragam anova jumlah daun 21 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	28.28256410	2.35688034	5.74	<.0001
R	4	25.18034188	6.29508547	15.34	<.0001
P	2	0.54222222	0.27111111	0.66	0.5249
R*P	6	2.56000000	0.42666667	1.04	0.4226
Error	26	10.66666667	0.41025641		
Corrected Total	38	38.94923077			
R-Square 0.726139					

Sidik ragam anova jumlah daun 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	40.85641026	3.40470085	3.72	0.0024
R	4	35.62752137	8.90688034	9.73	<.0001
P	2	1.30722222	0.65361111	0.71	0.4989
R*P	6	3.92166667	0.65361111	0.71	0.6414
Error	26	23.79333333	0.91512821		
Corrected Total	38	64.64974359			
R-Square 0.631966					

Sidik ragam anova jumlah daun 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	41.70102564	3.47508547	3.46	0.0039
R	4	36.66547009	9.16636752	9.11	<.0001
P	2	1.34000000	0.67000000	0.67	0.5222
R*P	6	3.69555556	0.61592593	0.61	0.7182
Error	26	26.14666667	1.00564103		
Corrected Total	38	67.84769231			
R-Square 0.614627					

Sidik ragam anova luas daun 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	28.07255897	2.33937991	7.06	<.0001
R	4	26.39424231	6.59856058	19.92	<.0001
P	2	0.05955417	0.02977708	0.09	0.9143
R*P	6	1.61876250	0.26979375	0.81	0.5684
Error	26	8.61155000	0.33121346		
Corrected Total	38	36.68410897			
R-Square 0.765251					

Sidik ragam anova luas daun 14 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	44.70362564	3.72530214	10.70	<.0001
R	4	40.65993675	10.16498419	29.20	<.0001
P	2	0.39642222	0.19821111	0.57	0.5728
R*P	6	3.64726667	0.60787778	1.75	0.1501
Error	26	9.05213333	0.34815897		
Corrected Total	38	53.75575897			
R-Square 0.831606					

Sidik ragam anova luas daun 21 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	67.72754359	5.64396197	7.18	<.0001
R	4	56.79001026	14.19750256	18.06	<.0001
P	2	4.10637222	2.05318611	2.61	0.0925
R*P	6	6.83116111	1.13852685	1.45	0.2347
Error	26	20.43620000	0.78600769		
Corrected Total	38	88.16374359			
R-Square 0.768202					

Sidik ragam anova luas daun 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	110.0763077	9.1730256	8.55	<.0001
R	4	89.20032991	22.30008248	20.80	<.0001
P	2	11.54233889	5.77116944	5.38	0.0111
R*P	6	9.33363889	1.55560648	1.45	0.2339

Error	26	27.8812000	1.0723538		
Corrected Total	38	137.9575077			
R-Square 0.797900					

Sidik ragam anova luas daun 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	145.2936103	12.1078009	19.86	<.0001
R	4	115.8877436	28.9719359	47.53	<.0001
P	2	19.7616889	9.8808444	16.21	<.0001
R*P	6	9.6441778	1.6073630	2.64	0.0392
Error	26	15.8477333	0.6095282		
Corrected Total	38	161.1413436			
R-Square 0.901653					

Sidik ragam anova berat segar tanaman

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	36830.36799	3069.19733	1.93	0.0775
R	4	28184.27206	7046.06801	4.44	0.0072
P	2	2704.38167	1352.19084	0.85	0.4382
R*P	6	5941.71426	990.28571	0.62	0.7096
Error	26	41271.24173	1587.35545		
Corrected Total	38	78101.60972			
R-Square 0.471570					

Sidik ragam anova berat kering tanaman

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	3159.629753	263.302479	2.88	0.0116
R	4	2233.477475	558.369369	6.11	0.0013
P	2	315.835538	157.917769	1.73	0.1972
R*P	6	610.316740	101.719457	1.11	0.3814
Error	26	2374.546833	91.328724		
Corrected Total	38	5534.176586			
R-Square 0.570930					

Sidik ragam anova berat segar tajuk

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	20133.17210	1677.76434	1.42	0.2205
R	4	15899.15230	3974.78808	3.36	0.0242
P	2	1345.49001	672.74500	0.57	0.5735
R*P	6	2888.52979	481.42163	0.41	0.8679
Error	26	30791.27233	1184.27971		
Corrected Total	38	50924.44444			
R-Square 0.395354					

Sidik ragam anova berat kering tajuk

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	3491.606969	290.967247	2.00	0.0671
R	4	2831.673414	707.918353	4.87	0.0046
P	2	138.249489	69.124744	0.48	0.6266
R*P	6	521.684067	86.947344	0.60	0.7286
Error	26	3775.731867	145.220456		
Corrected Total	38	7267.338836			
R-Square 0.480452					

Sidik ragam anova diameter bonggol

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	426.7990769	35.5665897	3.26	0.0056
R	4	358.9892103	89.7473026	8.23	0.0002
P	2	17.9981556	8.9990778	0.82	0.4495
R*P	6	49.8117111	8.3019519	0.76	0.6070
Error	26	283.6786667	10.9107179		
Corrected Total	38	710.4777436			
R-Square 0.600721					

Sidik ragam anova panjang akar

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	292.4664000	24.3722000	10.07	<.0001
R	4	255.8348444	63.9587111	26.44	<.0001
P	2	4.3978667	2.1989333	0.91	0.4154
R*P	6	32.2336889	5.3722815	2.22	0.0731
Error	26	62.8962667	2.4190872		
Corrected Total	38	355.3626667			
R-Square 0.823008					

Sidik ragam anova volume akar

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	84.6441026	7.0536752	5.54	0.0001
R	4	58.53743590	14.63435897	11.50	<.0001
P	2	4.01555556	2.00777778	1.58	0.2256
R*P	6	22.09111111	3.68185185	2.89	0.0270
Error	26	33.0933333	1.2728205		
Corrected Total	38	117.7374359			
R-Square 0.718923					

Sidik ragam anova berat ekonomi

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	13080.62613	1090.05218	2.60	0.0201
R	4	11735.57013	2933.89253	7.00	0.0006
P	2	348.96507	174.48253	0.42	0.6638
R*P	6	996.09093	166.01516	0.40	0.8747
Error	26	10896.32187	419.08930		

Corrected Total	38	23976.94800			
R-Square	0.545550				

Sidik ragam anova berat non ekonomi

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	4660.129210	388.344101	3.15	0.0069
R	4	3539.965655	884.991414	7.19	0.0005
P	2	279.287822	139.643911	1.13	0.3370
R*P	6	840.875733	140.145956	1.14	0.3684
Error	26	3200.552533	123.098174		
Corrected Total	38	7860.681744			
R-Square	0.592840				

Sidik ragam anova hama belalang 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	542.3589744	45.1965812	33.05	<.0001
R	4	534.8528015	133.7132004	97.78	<.0001
P	2	1.8765432	0.9382716	0.69	0.5124
R*P	6	5.6296296	0.9382716	0.69	0.6625
Error	26	35.5555556	1.3675214		
Corrected Total	38	577.9145300			
R-Square	0.938476				

Sidik ragam anova hama belalang 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	885.7891738	73.8157645	323.87	<.0001
R	4	879.4681861	219.8670465	964.67	<.0001
P	2	1.5802469	0.7901235	3.47	0.0463
R*P	6	4.7407407	0.7901235	3.47	0.0119
Error	26	5.9259259	0.2279202		
Corrected Total	38	891.7150997			
R-Square	0.993354				

Sidik ragam anova hama belalang 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	1287.566952	107.297246	168.13	<.0001
R	4	1282.431149	320.607787	502.38	<.0001
P	2	1.283951	0.641975	1.01	0.3795
R*P	6	3.851852	0.641975	1.01	0.4427
Error	26	16.592593	0.638177		
Corrected Total	38	1304.159544			
R-Square	0.987277				

Sidik ragam anova hama Plutella xylostella 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	691.1452991	57.5954416	18.05	<.0001



R	4	683.6391263	170.9097816	53.56	<.0001
P	2	0.6913580	0.3456790	0.11	0.8977
R*P	6	6.8148148	1.1358025	0.36	0.8999
Error	26	82.9629629	3.1908832		
Corrected Total	38	774.1082621			
R-Square 0.892828					

Sidik ragam anova hama *Plutella xylostella* 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	748.5811967	62.3817664	32.58	<.0001
R	4	743.4453942	185.8613486	97.08	<.0001
P	2	1.2839506	0.6419753	0.34	0.7182
R*P	6	3.8518519	0.6419753	0.34	0.9120
Error	26	49.7777778	1.9145299		
Corrected Total	38	798.3589745			
R-Square 0.937650					

Sidik ragam anova hama *Plutella xylostella* 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	1401.435898	116.786325	160.12	<.0001
R	4	1380.892688	345.223172	473.33	<.0001
P	2	5.135802	2.567901	3.52	0.0443
R*P	6	15.407407	2.567901	3.52	0.0110
Error	26	18.962963	0.729345		
Corrected Total	38	1420.398860			
R-Square 0.986650					

Sidik ragam anova penyakit kerdil 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	36.0113960	3.0009497	0.57	0.8479
R	4	9.14719848	2.28679962	0.43	0.7839
P	2	1.87654321	0.93827161	0.18	0.8384
R*P	6	24.98765433	4.16460906	0.79	0.5877
Error	26	137.4814815	5.2877493		
Corrected Total	38	173.4928776			
R-Square 0.207567					

Sidik ragam anova penyakit kerdil 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	58.2564102	4.8547009	0.90	0.5566
R	4	40.87369418	10.21842355	1.90	0.1406
P	2	7.20987656	3.60493828	0.67	0.5202
R*P	6	10.17283950	1.69547325	0.32	0.9232
Error	26	139.8518520	5.3789174		
Corrected Total	38	198.1082622			
R-Square 0.294064					

Sidik ragam anova penyakit kerdil 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	443.0769231	36.9230769	6.23	<.0001
R	4	407.9164293	101.9791073	17.21	<.0001
P	2	5.1358025	2.5679012	0.43	0.6529
R*P	6	30.0246913	5.0041152	0.84	0.5475
Error	26	154.0740741	5.9259259		
Corrected Total	38	597.1509972			
R-Square 0.741985					

Sidik ragam anova penyakit bercak daun7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	67.0085470	5.5840456	1.13	0.3765
R	4	35.00854699	8.75213675	1.78	0.1636
P	2	16.09876544	8.04938272	1.64	0.2144
R*P	6	15.90123457	2.65020576	0.54	0.7742
Error	26	128.0000000	4.9230769		
Corrected Total	38	195.0085470			
R-Square 0.343619					

Sidik ragam anova penyakit bercak daun 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	225.3675214	18.7806268	3.58	0.0031
R	4	200.4786325	50.1196581	9.56	<.0001
P	2	3.0617284	1.5308642	0.29	0.7492
R*P	6	21.8271605	3.6378601	0.69	0.6566
Error	26	136.2962963	5.2421652		
Corrected Total	38	361.6638177			
R-Square 0.623141					

Sidik ragam anova penyakit bercak daun35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	339.4188033	28.2849003	4.19	0.0011
R	4	315.3200378	78.8300095	11.68	<.0001
P	2	6.0246914	3.0123457	0.45	0.6447
R*P	6	18.0740741	3.0123457	0.45	0.8407
Error	26	175.4074074	6.7464387		
Corrected Total	38	514.8262107			
R-Square 0.659288					

Sidik ragam anova hama Callitara horsfieldii 7 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	895.8176639	74.6514720	43.10	<.0001
R	4	888.3114910	222.0778728	128.21	<.0001
P	2	1.8765432	0.9382716	0.54	0.5882
R*P	6	5.6296296	0.9382716	0.54	0.7717
Error	26	45.0370370	1.7321937		

Corrected Total	38	940.8547009			
R-Square 0.952132					

Sidik ragam anova hama Calliteara horsfieldii 28 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	225.3675214	18.7806268	3.58	0.0031
R	4	200.4786325	50.1196581	9.56	<.0001
P	2	3.0617284	1.5308642	0.29	0.7492
R*P	6	21.8271605	3.6378601	0.69	0.6566
Error	26	136.2962963	5.2421652		
Corrected Total	38	361.6638177			

R-Square 0.623141

Sidik ragam anova hama Calliteara horsfieldii 35 HST

Source	DF	Squares	Mean Square	F Value	Pr > F
Model	12	655.9743590	54.6645299	11.68	<.0001
R	4	647.5052232	161.8763058	34.59	<.0001
P	2	2.1172840	1.0586420	0.23	0.7991
R*P	6	6.3518519	1.0586420	0.23	0.9645
Error	26	121.6851852	4.6801994		
Corrected Total	38	777.6595442			

R-Square 0.843524

## LAMPIRAN 2. DOKUMENTASI PENELITIAN

**Gambar 1.** Proses Pembuatan pestisida organik



**Gambar 2.** Persiapan lahan dan penanaman



**Gambar 3.** Pengukuran tinggi tanaman





**Gambar 4.** Pengamatan hama belalang kukus hijau



**Gambar 5.** Pengamatan hama *Plutella xylostella*



**Gambar 6.** Pengamatan hama *Caliteara horsfieldii*





**Gambar 7.** Pengamatan kejadian penyakit bercak daun



**Gambar 8.** Pengamatan kejadian penyakit kerdil



**Gambar 9.** Pengendalian Hama Penyakit





Gambar 10. Pemanenan dan Pengukuran Parameter Hasil



## RIWAYAT HIDUP



Penulis dilahirkan pada tanggal 25 September 2000 di Wekmurak, kecamatan Rinhat, kabupaten Malaka, sebagai anak pertama dari 5 bersaudara dari pasangan bapak Lorensius Fatin dan ibunda tercinta mama Ermince Hoar. Pada tahun 2006 penulis memulai pendidikan pada SD Katolik Wekmurak sampai tamat dan berijazah tahun 2013, penulis melanjutkan pendidikan di SMP Swasta Stella Maris Biudukfoho dan berijazah pada tahun 2016. Penulis melanjutkan pendidikan pada SMA Swasta 17 Agustus Weoe tamat berijazah tahun 2019. Pada pertengahan tahun 2019 penulis mendaftarkan diri pada Fakultas Pertanian Sains dan Kesehatan, Program Studi Agroteknologi, Universitas Timor–TTU lewat jalur SBMPTN hingga selesainya penyusunan skripsi ini dengan motto “ **Akan selalu ada jalan menuju sebuah kesuksesan bagi siapa pun, selama orang tersebut mau berusaha dan bekerja keras untuk memaksimalkan kemampuan yang ia miliki**”