

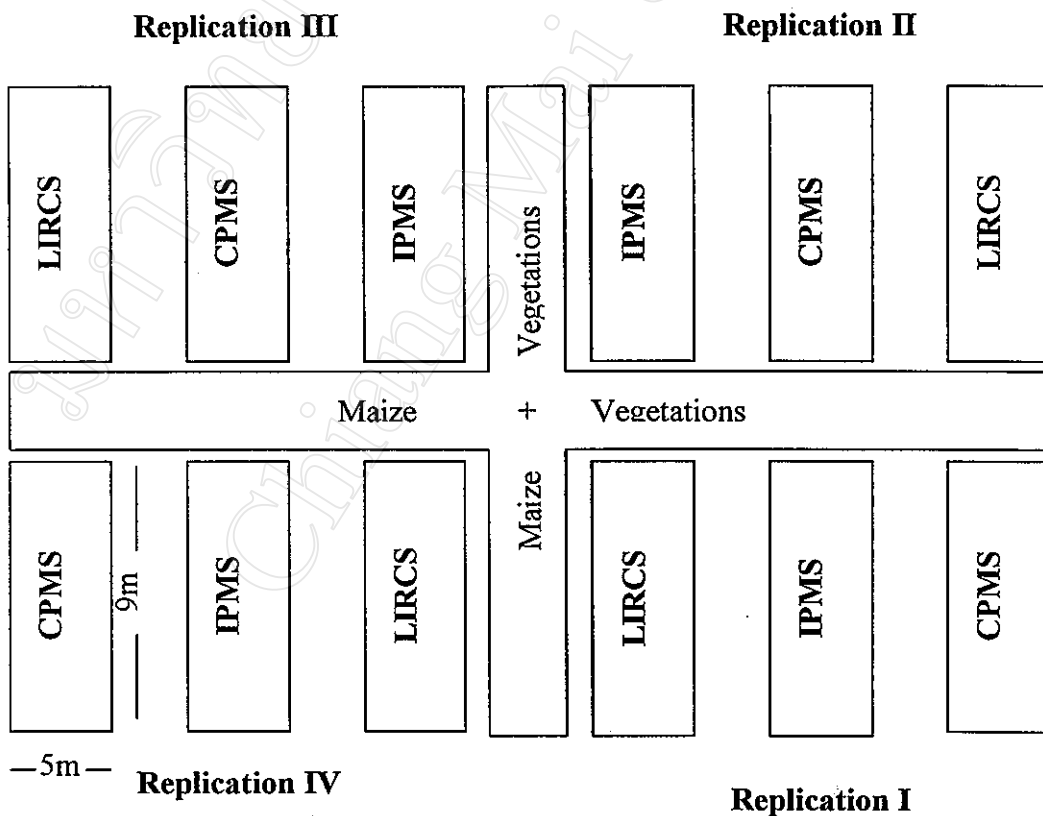
Appendix A: Layout of experimental system

System:

1. CPMS: Cambodian Pest Management System
2. IPMS: Integrated Pest Management System
3. LIRCS: Low Input Rice Cultivation System

System variables:

1. CPMS: Fertilizers + Conventional spray of insecticide
+ Old seedlings + High seedling density
2. IPMS: Fertilizers + Threshold-based spray of insecticide
+ Young seedlings + Low seedling density
3. LIRCS: No fertilizers + No pest management + Young seedlings
+ Low seedling density



Appendix B: Data obtained from the field experiment

B 1: Transformed data (Log x+1) of *Nephotettix* spp. recorded by visual count.

System	<i>Nephotettix</i> spp. pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	0.90309	0.60206	0.4771213	0	1.98227	0.49557
IPM	0.7781513	0.69897	0.30103	0.9542425	2.73239	0.6831
Control	0.60206	0.60206	0.7781513	0.69897	2.68124	0.67031
Total	2.2833013	1.90309	1.5563026	1.6532125	7.39591	

B 2: Transformed data (Log x+1) of *Nephotettix* spp. recorded by sweep net.

System	<i>Nephotettix</i> spp. pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	1.1139434	0.8451	0.9542425	0.69897	3.61225	0.90306
IPM	1.1760913	1.14613	1.0413927	0.90309	4.2667	1.06668
Control	1.146128	1.17609	0.845098	1.20412	4.37144	1.09286
Total	3.4361627	3.16732	2.8407332	2.80618	12.2504	

B 3: Transformed data (Log x+1) of *N. virescens* recorded by visual count.

System	<i>N. virescens</i> pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	0.60206	0.30103	0.30103	0	1.20412	0.30103
IPM	0.47712	0.47712	0.30103	0.60206	1.85733	0.46433
Control	0.47712	0.30103	0.30103	0.60206	1.68124	0.42031
Total	1.5563	1.07918	0.90309	1.20412	4.74269	

B 4: Transformed data (Log x+1) of *N. nigropictus* recorded by visual count.

System	<i>N. nigropictus</i> pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	0.69897	0.47712	0.30103	0	1.47712	0.36928
IPM	0.60206	0.47712	0	0.77815	1.85733	0.46433
Control	0.30103	0.47712	0.69897	0.30103	1.77815	0.44454
Total	1.60206	1.43136	1	1.07918	5.11261	

B 5: Transformed data (Log x+1) of *N. virescens* recorded by sweep net.

System	<i>N.nigropictus</i> pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	0.90309	0.60206	0.69897	0.47712	2.68124	0.67031
IPM	0.77815	0.8451	0.69897	0.47712	2.79934	0.69984
Control	0	0.47712	0.69897	0.95424	2.13033	0.53258
Total	1.68124	1.92428	2.09691	1.90849	7.61092	

B 6: Transformed data (Log x+1) of *N. nigropictus* recorded by sweep net.

System	<i>N.nigropictus</i> pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	0.77815	0.60206	0.69897	0.47712	2.5563	0.63908
IPM	1	0.90309	0.8451	0.77815	3.52634	0.88158
Control	1.14613	1.11394	0.47712	0.90309	3.64028	0.91007
Total	2.92428	2.61909	2.02119	2.15836	9.72292	

B 7. Transformed data (Log x) of *Nephotettix* spp. egg pop. found on plants.

System	<i>Nephotettix</i> spp. egg pop.				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	2.6608655	2.4409091	2.39794	2.4885507	9.9882653	2.4970663
IPM	2.1003705	1.90309	1.924793	2.064458	7.9927115	1.9981779
Control	2.1731863	2.0530784	2.045323	1.94939	8.2209777	2.0552444
Total	6.9344223	6.3970775	6.368056	6.5023987	26.201955	

B 8. Transformed data (*arcsin*) of overall contribution of natural enemies to *Nephotettix* spp. egg mortality.

System	Egg damaged (%)				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	41.78	36.15	34.94	45.75	158.62	39.66
IPMS	37.17	33.96	35.24	43.51	149.88	37.47
Control	46.32	41.67	32.46	45.34	165.79	41.45
Total	125.27	111.78	102.64	134.60	474.29	

B 9. Transformed data (*arcsin*) of relative contribution of *A. optabli* to *Nephotettix* spp. egg mortality.

System	Parasitism rate (%)				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	30.59	35.91	30.13	30.85	127.48	31.87
IPMS	35.73	26.56	29.20	22.46	113.95	28.49
Control	29.40	29.20	20.79	31.95	111.34	27.84
Total	95.72	91.67	80.12	85.26	352.77	

B 10. Transformed data (*arcsin*) of relative contribution of *Oligosita* spp. to *Nephotettix* spp. egg mortality.

System	Parasitism rate (%)				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	19.82	0.0009	13.18	21.89	54.89	13.72
IPMS	0.0019	18.44	0.0029	11.97	30.41	7.60
Control	27.13	0.0022	0.0022	0.0028	27.14	6.78
Total	46.95	18.4431	13.1851	33.86	112.44	

B 11. Transformed data (*arcsin*) of relative contribution of *C. lividipennis* to *Nephotettix* spp. egg mortality.

System	Predation rate (%)				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	9.63	3.44	8.91	19.37	41.35	10.34
IPMS	8.91	6.29	17.95	32.20	65.35	16.34
Control	15.79	26.78	23.73	28.32	94.62	23.66
Total	34.33	36.51	50.59	79.89	201.32	

B 12. Population of natural enemies in the systems recorded by visual count.

System	Number of natural enemies				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	15	12	7	13	47	11.75
IPMS	14	15	12	11	52	13
Control	19	16	12	9	56	14
Total	48	43	31	33		

B 13. Population of natural enemies in systems recorded by sweep net.

System	Number of natural enemies				Total	Mean
	Rep. I	Rep. II	Rep. III	Rep. IV		
CPMS	49	35	42	22	148	37
IPMS	56	36	45	40	177	44.25
Control	48	54	36	34	172	43
Total	153	125	123	96		

Appendix C: Analysis of variance based on data in appendix B**C 1: Analysis of variance of *Nephotettix* spp. pop. recorded by visual count.**

Source	DF	SS	MS	F	P
Replication (A)	3	0.10518	0.03506	0.37	0.7779
System (B)	2	0.08782	0.04391	0.46	0.65
A*B	6	0.56871	0.09478		
Total	11	0.76171			

C 2: Analysis of variance of *Nephotettix* spp. pop. recorded by sweep net.

Source	DF	SS	MS	F	P
Replication (A)	3	0.0885	0.0295	1.33	0.3488
System (B)	2	0.08464	0.04232	1.91	0.2279
A*B	6	0.13282	0.02214		
Total	11	0.79291			

C 3: Analysis of variance of *N. virescens* pop. recorded by visual count.

Source	DF	SS	MS	F	P
Replication (A)	3	0.0763	0.02543	0.71	0.5816
System (B)	2	0.05711	0.02856	0.79	0.4941
A*B	6	0.21562	0.03594		
Total	11	0.34903			

C 4: Analysis of variance of *N. nigropictus* pop. recorded by visual count.

Source	DF	SS	MS	F	P
Replication (A)	3	0.08178	0.02726	0.26	0.8492
System (B)	2	0.02012	0.01006	0.1	0.8492
A*B	6	0.61977	0.1033		
Total	11	0.72167			

C 5: Analysis of variance of *N. virescens* pop. recorded by sweep net.

Source	DF	SS	MS	F	P
Replication (A)	3	0.02909	0.0097	0.09	0.9621
System (B)	2	0.06375	0.03188	0.3	0.7511
A*B	6	0.63694	0.10616		
Total	11	0.72978			

C 6: Analysis of variance of *N. nigropictus* pop. recorded by sweep net.

Source	DF	SS	MS	F	P
Replication (A)	3	0.17366	0.05789	1.85	0.2395
System (B)	2	0.17741	0.08871	2.81	0.1364
A*B	6	0.18816	0.03136		
Total	11	0.53923			

C 7. Analysis of variance of *Nephotettix* spp. egg population.

Source	DF	SS	MS	F	P
Replication (A)	3	0.0681	0.02297	5.4	0.0386
System (B)	2	0.59666	0.29833	70.11	0.0001
A*B	6	0.02553	0.00426		
Total	11	0.6911			

C 8. Analysis of variance of relative contribution of *A. optabli* to *Nephotettix* spp. egg mortality.

Source	DF	SS	MS	F	P
Replication (A)	3	47.5070	15.8357	0.81	0.4868
System (B)	2	37.5311	18.7655	0.69	0.5923
A*B	6	138.406	23.0677		
Total	11	223.444			

C 9. Analysis of variance of relative contribution of *Oligosita* spp. to *Nephotettix* spp. egg mortality.

Source	DF	SS	MS	F	P
Replication (A)	3	234.771	78.2571	0.40	0.6867
System (B)	2	115.007	57.5037	0.54	0.6694
A*B	6	861.673	143.612		
Total	11	1211.45			

C 10. Analysis of variance of relative contribution of *C. lividipennis* to *Nephotettix* spp. egg mortality.

Source	DF	SS	MS	F	P
Replication (A)	3	440.285	146.762	4.51	0.0444
System (B)	2	355.869	177.934	5.47	0.0555
A*B	6	195.146	23.5244		
Total	11	991.299			

C 11. Analysis of variance of pop. of natural enemies recorded by visual count.

Source	DF	SS	MS	F	P
Replication (A)	3	65.5833	21.8611	3.53	0.0883
System (B)	2	10.1667	5.08333	0.82	0.4841
A*B	6	37.1667	6.19444		
Total	11	112.917			

C 12. Analysis of variance of pop. of natural enemies recorded by sweep net.

Source	DF	SS	MS	F	P
Replication (A)	3	542.25	180.75	3.04	0.1143
System (B)	2	120.167	60.0833	1.01	0.4183
A*B	6	356.5	59.4167		
Total	11	1018.92			

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