

Electronic Supplementary Information

**Land type drives pest infestation patterns in smallholder cocoa
agroecosystems**

**Pengaruh tipe lahan terhadap pola infestasi hama pada
agroekosistem kakao pekebun kecil**

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Table S1. Distribution of cocoa pests and infestation levels in shaded area

No.	Tree No.	Pest type	Total fruits (N)	Infested fruits (n)	Infestation (%)
1	1	No pests observed	3	0	0.00
2	2	No pests observed	2	0	0.00
3	3	No pests observed	8	0	0.00
4	4	No pests observed	1	0	0.00
5	5	Bagworm	2	1	50.00
6	5	Mealybugs	2	1	50.00
7	6	Mealybugs	5	2	40.00
8	7	No pests observed	2	0	0.00
9	8	No pests observed	3	0	0.00
10	9	<i>Helopeltis</i> spp.	10	4	40.00
11	10	<i>Helopeltis</i> spp.	12	2	16.67
12	10	Mealybugs	12	1	8.33
13	11	<i>Helopeltis</i> spp.	2	2	100.00
14	12	Mealybugs	12	1	8.33
15	13	<i>Helopeltis</i> spp.	3	1	33.33
16	14	Mealybugs	1	1	100.00
17	15	Mealybugs	4	1	25.00
18	16	<i>Helopeltis</i> spp.	8	4	50.00
19	16	Mealybugs	8	2	25.00
20	17	Mealybugs	1	1	100.00
21	18	<i>Helopeltis</i> spp.	4	4	100.00
22	19	<i>Helopeltis</i> spp.	3	3	100.00
23	20	Mealybugs	2	1	50.00
24	21	Bagworm	2	1	50.00
25	22	Mealybugs	4	2	50.00
26	23	<i>Helopeltis</i> spp.	3	1	33.33

Total: N = 57, n = 25, Mean infestation = 43.86%

Table S2. Distribution of cocoa pests and infestation levels in sloping area

No.	Tree No.	Pest type	Total fruits (N)	Infested fruits (n)	Infestation (%)
1	1	Nettle caterpillar	11	1	9.09
2	1	Mealybugs	11	7	63.64
3	2	Mealybugs	1	1	100.00
4	3	Mealybugs	16	6	37.50
5	4	Mealybugs	1	1	100.00
6	5	<i>Helopeltis</i> spp.	10	2	20.00
7	6	<i>Helopeltis</i> spp.	10	6	60.00
8	6	Nettle caterpillar	10	3	30.00
9	7	<i>Helopeltis</i> spp.	9	3	33.33
10	8	Mealybugs	1	1	100.00
11	9	Mealybugs	11	3	27.27
12	10	Mealybugs	3	3	100.00
13	11	Mealybugs	6	6	100.00
14	12	Mealybugs	1	1	100.00

Total: N = 101, n = 44, Mean infestation = 43.56%

Table S3. Distribution of cocoa pests and infestation levels in flat area

No.	Tree No.	Pest type	Total fruits (N)	Infested fruits (n)	Infestation (%)
1	1	Mealybugs	6	4	66.67
2	2	Mealybugs	5	3	60.00
3	3	Mealybugs	7	4	57.14
4	4	Mealybugs	5	2	40.00
5	5	Mealybugs	1	1	100.00
6	6	Mealybugs	10	2	20.00
7	7	No pests observed	7	0	0.00
8	8	Mealybugs	8	3	37.50
9	9	Mealybugs	6	2	33.33
10	9	Nettle caterpillar	6	1	16.67
11	10	Mealybugs	7	1	14.29
12	11	Mealybugs	25	9	36.00
13	11	<i>Helopeltis</i> spp.	25	4	16.00
14	12	Mealybugs	3	1	33.33
15	13	Mealybugs	3	1	33.33
16	14	Mealybugs	4	1	25.00
17	15	<i>Helopeltis</i> spp.	3	1	33.33
18	16	<i>Helopeltis</i> spp.	4	2	50.00
19	16	Mealybugs	4	1	25.00
20	17	Mealybugs	10	7	70.00
21	18	Mealybugs	3	1	33.33
22	19	Mealybugs	9	1	11.11
23	20	No pests observed	1	0	0.00

Total: N = 107, n = 31, Mean infestation = 28.97%