

Tables

Table S1. Socio-demographic factors of farmers and background information about participants' agricultural practices in four townships of Miaoli County.

Variable	<i>n</i>	%	Variable	<i>n</i>	%
Township	126		Own farm	124 ^a	
Sanyi	30	23.8	Yes	90	72.6
Zhuolan	54	42.9	No	34	27.4
Yuanli/ Tongxiao ^b	42	33.3	Years farming	117 ^a	
Age	120 ^a		1-10	45	38.5
18-35	16	13.4	11-20	21	17.9
35-55	43	35.8	21-30	21	17.9
55+	61	50.8	30+	30	25.6
Gender	107 ^a		Farm animals	124 ^a	
Male	72	67.3	Yes	34	27.4
Female	35	32.7	No	90	72.6
Education	123 ^a		Crop type	126	
Elementary school	16	13.0	Rice	35	27.8
High school	63	51.2	Vegetables	24	19.0
University/ College	38	30.9	Fruit	67	53.2
Graduate studies	6	4.9	Crop storage	126	
Main occupation	126		Yes	100	79.4
Farming	95	75.4	No	26	20.6
Other	31	24.6	Use of traps	117 ^a	
Main income	126		Yes	41	35.0
Farming	95	75.4	No	76	65.0
Other	31	24.6			

Notes: ^a indicates lower total *n* value due to missing data, participants left some questions blank; ^b townships joined due to low sample size from Tongxiao, close proximity between two townships, and similar types of crops grown.

Table S2. Spearman rank correlation matrix of relationships between predictor variables. Two-tailed *P* values are displayed below coefficients. Significance is indicated in bold.

	Age	Gender	Education	Main income	Main occupation ¹	Own farm	Years farming ¹	Pets	Farm animals	Crop type	Crop storage	Rodent problem	Rodent worst ¹
Age	1												
Gender	0.230* 0.020	1											
Education	-0.518** <0.001	-0.174 0.077	1										
Main income	-0.053 0.565	0.230* 0.017	0.182* 0.044	1									
Main occupation ¹	-0.058 0.529	0.319** 0.001	0.208* 0.021	0.810** <0.001	1								
Own farm	-0.047 0.614	0.045 0.651	0.051 0.577	0.032 0.724	0.104 0.249	1							
Years farming ¹	0.525** <0.001	0.045 0.661	-0.369** <0.001	-0.171 0.065	-0.193* 0.037	-0.018 0.847	1						
Pets	-0.121 0.189	0.127 0.195	0.114 0.213	0.014 0.876	-0.005 0.958	0.140 0.121	-0.050 0.591	1					
Farm animals	-0.048 0.607	-0.154 0.116	0.032 0.730	-0.073 0.418	-0.063 0.490	0.019 0.832	0.144 0.124	0.309** <0.001	1				
Crop type	0.136 0.139	0.183 0.059	-0.213* 0.018	-0.178* 0.046	-0.189* 0.034	-0.006 0.946	0.344** <0.001	0.041 0.653	-0.115 0.205	1			
Crop storage	-0.101 0.274	-0.007 0.942	0.066 0.470	-0.063 0.484	-0.027 0.760	-0.072 0.425	0.092 0.324	0.067 0.461	0.095 0.296	-0.018 0.840	1		
Rodent problem	0.058 0.530	0.004 0.969	-0.089 0.328	0.034 0.706	-0.019 0.832	-0.067 0.457	0.042 0.657	-0.010 0.912	0.129 0.154	-0.272** 0.002	0.215 0.016	1	
Rodent worst ¹	-0.023 0.804	0.103 0.293	0.030 0.745	0.121 0.176	0.132 0.142	-0.007 0.943	-0.119 0.202	0.072 0.425	0.111 0.221	-0.391** <0.001	0.106 0.237	0.536** <0.001	1

Notes: * $P < 0.05$ (two-tailed), ** $P < 0.01$ (two-tailed); ¹ variable excluded from model construction for the dependent variable *rodent attitude (RA) score*

Table S3. Chi-square test statistics determining associations between independent variables and 'rodenticide use' of participants who perceived rodents to be problematic. Significance is indicated in bold.

Variable	<i>n</i>	χ^2	<i>df</i>	<i>P</i>
Age	66	6.03	2	<0.05
Gender	65	0.35	1	0.557
Education	65	6.96	2	<0.05
Main income	70	0.00	1	0.999
Ownership	68	0.00	1	0.987
Years farming	64	4.18	3	0.236
Pets	69	0.09	1	0.765
Farm animals	68	0.52	1	0.471
Crop type	70	5.10	2	0.078
Crop storage	70	0.16	1	0.745
Use of traps	65	2.44	1	0.118
Rodent problem	70	0.36	1	0.550

Notes: Analysis based on subset of sample: farmers who perceived rodents to cause damage to their crops (*n* = 70)

Table S4. Reasons provided by farmers for not currently using rodenticides. Freq. = frequency.

Reason	Freq. (%)
Not necessary	25 (39.7)
Perceive rodenticides as ineffective	16 (25.4)
Environmentally-friendly farming practices	10 (15.9)
Belief in biological control of rodent pests	6 (9.5)
Other	6 (9.5)
<i>Total</i>	63

Table S5. Methods of acquisition and considerations for which products of rodenticides to use reported by farmers. Responses only from farmers who currently use rodenticides. Freq. = frequency.

Method of acquisition	Freq. (%)	Considerations for use	Freq. (%)
Request from government	32 (59.3)	Availability	20 (26.3)
Buy from local store	21 (38.9)	Effectiveness	15 (19.7)
Buy from online store	1 (1.8)	Environmental friendliness	10 (13.2)
<i>Total</i>	54	Other people's health	9 (11.8)
		Farmer community trends	9 (11.8)
		Personal health	5 (6.6)
		Price	4 (5.3)
		Tradition	3 (4.0)
		Other	1 (1.3)
		<i>Total</i>	76

Figures

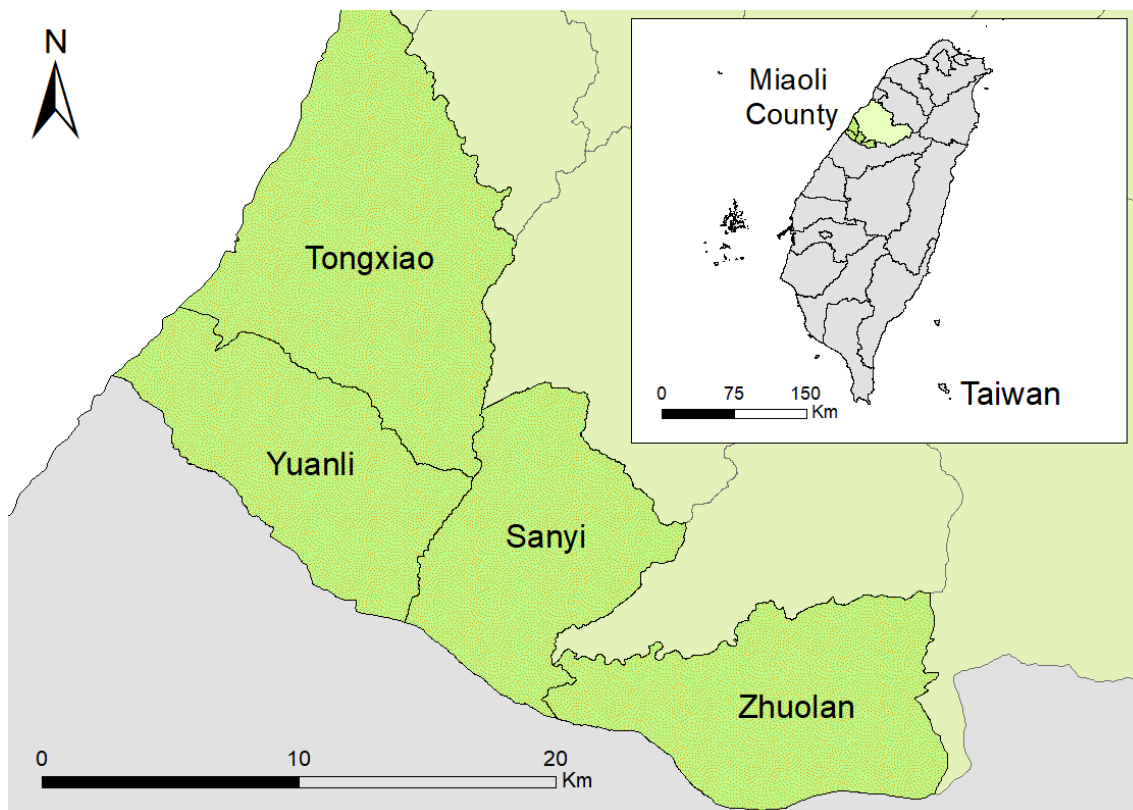


Figure S1. Map of townships Zhuolan, Sanyi, Yuanli, and Tongxiao in Miaoli County, Taiwan, where sampling for the survey was conducted.

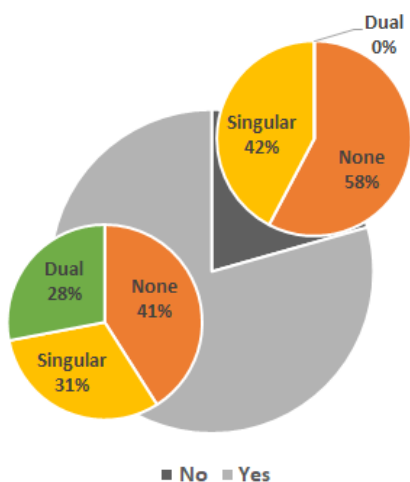


Figure S2. Comparison of crop storage and rodent problem. Percentages based on farmers' responses. Smaller pie charts indicate distribution (%) for the subgroup it is overlapped with.

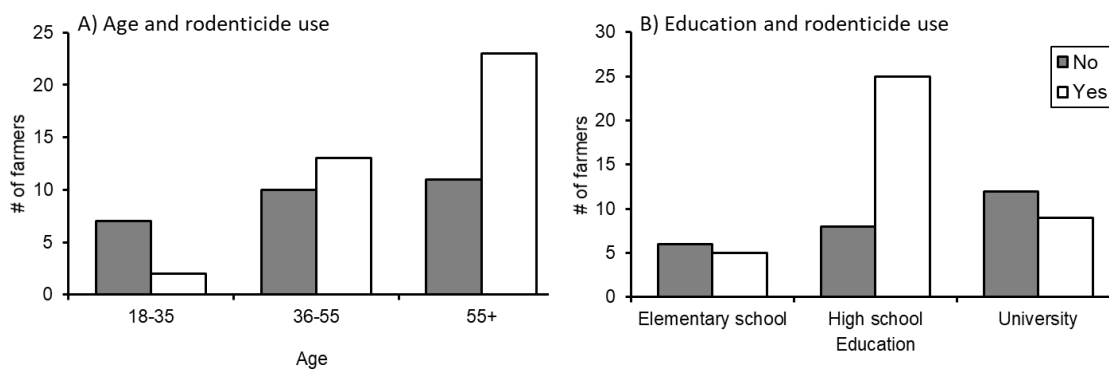


Figure S3. Rodenticide use of farmers compared between A) age, and B) education. Subset of sample ($n = 70$): farmers who perceived rodents to cause damage to their crops. Results based on cross-tabulations and chi square tests (Table S3)