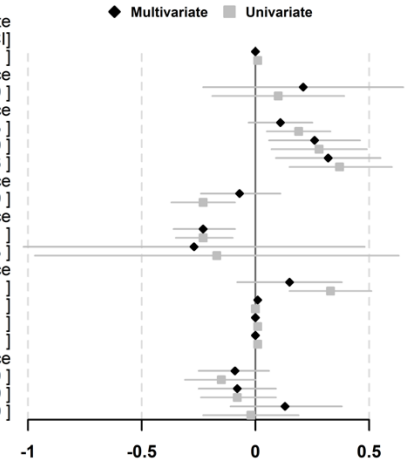


Supplementary Figure SF1: Major crops grown by country and farming practice. Major indicates the crops cultivated by the most farmers, not applying any threshold.

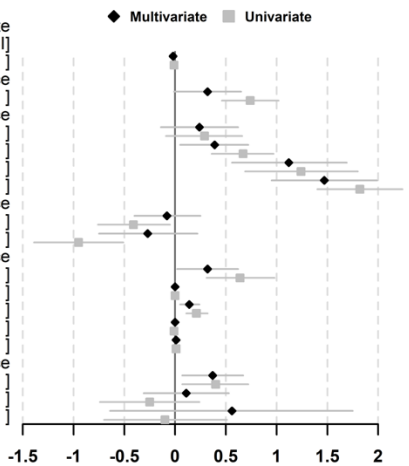
a) Costa Rica Household Income

	n	multivariate beta [95%-CI]	univariate beta [95%-CI]
Age	years 276	0 [-0.01 to 0.01]	0.01 [0 to 0.01]
Sex	Female 24	Reference	Reference
	Male 252	0.21 [-0.23 to 0.65]	0.1 [-0.19 to 0.39]
Education	Less than Primary 85	Reference	Reference
	Primary 107	0.11 [-0.03 to 0.25]	0.19 [0.05 to 0.33]
	Secondary 44	0.26 [0.06 to 0.46]	0.28 [0.07 to 0.49]
	More than Secondary 40	0.32 [0.09 to 0.55]	0.37 [0.15 to 0.6]
Nationality	Costa Rica 154	Reference	Reference
	Nicaragua 122	-0.07 [-0.24 to 0.11]	-0.23 [-0.37 to -0.09]
Civil Status	Married, Cohabitation 162	Reference	Reference
	Single, Separated, Divorced 112	-0.23 [-0.36 to -0.09]	-0.23 [-0.35 to -0.1]
	Widowed 2	-0.27 [-1.02 to 0.48]	-0.17 [-0.97 to 0.63]
Occupation	Farm Worker 181	Reference	Reference
	Farm Owner 181	0.15 [-0.08 to 0.38]	0.33 [0.15 to 0.51]
Working Hours	hours/week 276	0.01 [0 to 0.01]	0 [0 to 0.01]
Experience in Agriculture	years 276	0 [-0.01 to 0.01]	0.01 [0 to 0.01]
Experience with Pesticides	years 276	0 [-0.01 to 0.01]	0.01 [0 to 0.01]
Farming Practice	Conventional 136	Reference	Reference
	Mixed 63	-0.09 [-0.25 to 0.06]	-0.15 [-0.31 to 0]
	Organic 33	-0.08 [-0.25 to 0.09]	-0.08 [-0.24 to 0.09]
	Non-Applicator 44	0.13 [-0.11 to 0.38]	-0.02 [-0.23 to 0.19]



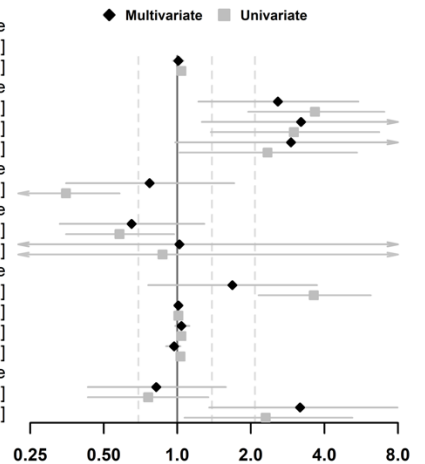
b) Uganda Household Income

	n	multivariate beta [95%-CI]	univariate beta [95%-CI]
Age	years 257	-0.02 [-0.03 to 0]	-0.01 [-0.02 to 0]
Sex	Female 91	Reference	Reference
	Male 166	0.32 [-0.01 to 0.65]	0.74 [0.46 to 1.02]
Education	Less than Primary 81	Reference	Reference
	Primary 58	0.24 [-0.14 to 0.62]	0.29 [-0.09 to 0.66]
	Up to lower Secondary 90	0.39 [0.05 to 0.72]	0.67 [0.36 to 0.97]
	Up to upper Secondary 13	1.12 [0.56 to 1.69]	1.24 [0.69 to 1.8]
	More than Secondary 15	1.47 [0.95 to 1.99]	1.82 [1.4 to 2.24]
Civil Status	Married, Cohabitation 184	Reference	Reference
	Single, Separated, Divorced 47	-0.08 [-0.4 to 0.25]	-0.41 [-0.76 to -0.05]
	Widowed 26	-0.27 [-0.75 to 0.22]	-0.95 [-1.39 to -0.51]
Occupation	Crop Farmer 194	Reference	Reference
	Other Occupation 194	0.32 [0.02 to 0.62]	0.64 [0.31 to 0.98]
Working Hours	hours/week 257	0 [-0.01 to 0.01]	0 [-0.01 to 0.01]
Farm size	hectars 257	0.14 [0.05 to 0.24]	0.21 [0.11 to 0.32]
Experience in Agriculture	years 257	0 [-0.01 to 0.01]	-0.01 [-0.02 to 0]
Experience with Pesticides	years 257	0.01 [0 to 0.03]	0.01 [0 to 0.02]
Farming Practice	Conventional 145	Reference	Reference
	Mixed 80	0.37 [0.07 to 0.67]	0.4 [0.07 to 0.72]
	Organic 22	0.11 [-0.31 to 0.53]	-0.25 [-0.74 to 0.24]
	Non-Applicator 10	0.56 [-0.64 to 1.75]	-0.1 [-0.7 to 0.51]



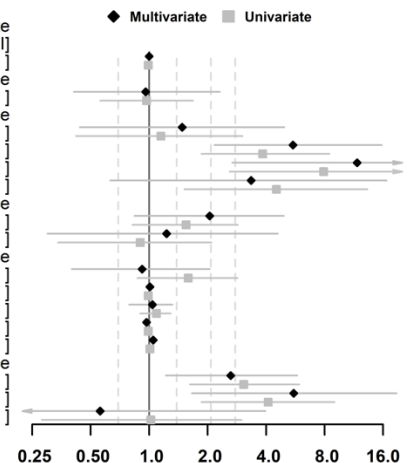
c) Costa Rica Pesticide Training

	n	multivariate OR [95%-CI]	univariate OR [95%-CI]
Age	years 250	1.01 [0.96 to 1.06]	1.04 [1.02 to 1.06]
Education	Less than Primary 73	Reference	Reference
	Primary 102	2.58 [1.22 to 5.51]	3.66 [1.95 to 7.04]
	Secondary 42	3.21 [1.26 to 8.38]	3 [1.37 to 6.71]
	More than Secondary 33	2.92 [0.98 to 8.95]	2.34 [1.02 to 5.44]
Nationality	Costa Rica 146	Reference	Reference
	Nicaragua 104	0.77 [0.35 to 1.71]	0.35 [0.2 to 0.58]
Civil Status	Married, Cohabitation 152	Reference	Reference
	Single, Separated, Divorced 96	0.65 [0.33 to 1.29]	0.58 [0.35 to 0.97]
	Widowed 2	1.02 [0.04 to 28.84]	0.87 [0.03 to 22.2]
Occupation	Farm Worker 148	Reference	Reference
	Farm Owner 148	1.68 [0.76 to 3.73]	3.62 [2.15 to 6.19]
Working Hours	hours/week 250	1.01 [0.99 to 1.03]	1.01 [0.99 to 1.02]
Experience in Agriculture	years 250	1.04 [0.98 to 1.12]	1.04 [1.02 to 1.05]
Experience with Pesticides	years 250	0.97 [0.9 to 1.03]	1.03 [1.02 to 1.05]
Farming Practice	Conventional 146	Reference	Reference
	Mixed 70	0.82 [0.43 to 1.58]	0.76 [0.43 to 1.34]
	Organic 34	3.18 [1.35 to 7.97]	2.3 [1.07 to 5.21]



d) Uganda Pesticide Training

	n	multivariate OR [95%-CI]	univariate OR [95%-CI]
Age	years 260	1 [0.97 to 1.04]	0.99 [0.98 to 1.01]
Sex	Female 93	Reference	Reference
	Male 167	0.96 [0.41 to 2.31]	0.97 [0.56 to 1.68]
Education	Less than Primary 82	Reference	Reference
	Primary 58	1.48 [0.44 to 4.96]	1.15 [0.42 to 3.02]
	Up to lower Secondary 91	5.5 [2.17 to 15.74]	3.84 [1.86 to 8.47]
	Up to upper Secondary 13	11.76 [2.68 to 53.92]	7.91 [2.6 to 24.82]
	More than Secondary 16	3.35 [0.63 to 16.67]	4.52 [1.52 to 13.27]
Civil Status	Married, Cohabitation 185	Reference	Reference
	Single, Separated, Divorced 49	2.05 [0.84 to 4.93]	1.55 [0.82 to 2.86]
	Widowed 26	1.23 [0.3 to 4.6]	0.9 [0.34 to 2.09]
Occupation	Crop Farmer 197	Reference	Reference
	Other Occupation 197	0.92 [0.4 to 2.05]	1.59 [0.87 to 2.85]
Working Hours	hours/week 260	1.01 [0.99 to 1.03]	0.99 [0.97 to 1.01]
Farm size	hectars 260	1.04 [0.79 to 1.32]	1.09 [0.9 to 1.29]
Experience in Agriculture	years 260	0.97 [0.93 to 1.01]	0.99 [0.97 to 1.01]
Experience with Pesticides	years 260	1.05 [1.01 to 1.09]	1.01 [0.99 to 1.03]
Farming Practice	Conventional 145	Reference	Reference
	Mixed 81	2.63 [1.22 to 5.79]	3.07 [1.62 to 5.92]
	Organic 23	5.55 [1.66 to 18.74]	4.1 [1.86 to 9]
	Non-Applicator 11	0.56 [0.03 to 3.97]	1.02 [0.28 to 2.99]



Supplementary Figure SF2: a) and b): Forest plot with coefficients for robust regression of logarithmic household income and its predictors. c) and d) Forest plot with Odds Ratio for logistic regression of received pesticide training and its predictors.

Supplementary Table ST1: Variables and questions used in the survey. Stars (*) denote that the question or the answer is referring to the list of options in Supplementary Table ST2, indicating either repetition of the question for each item on the list, or the option to select any item from the list.

Variable name and question	Type	Unit / Categories
Socio-demographic characteristics		
Sex	Single choice	Female Male
Age: “How old are you?”	Integer	Years
Education, derived from: “What is the highest level of school you completed? Which specific year?”	Integer	Years
Marital status: “What is your current marital status?”	Single choice	Single Married Cohabitation Separated Divorced Widowed
Nationality: “What country were you born in?”	Single choice	Costa Rica Nicaragua Uganda Tanzania Rwanda
Socio-economic and occupational characteristics		
(Farming) practice	Derived from pesticide use and occupational variables	Non-Applicator Organic Mixed Conventional
Years of experience in agriculture, derived from age and “How old were you when you started working on agricultural farms?” and age	Integer	Years
Years of experience spraying/handling pesticides, derived from age and “At what age did you start mixing or applying synthetic pesticides?”	Integer	Years
Monthly household income: “On average how much money do you make in a month? Please include everyone who contributes to the income of the household: Household head, partner, children, relatives etc.”	Integer	Costa Rican Colon (CRC) / Ugandan Shilling (UGX)

Variable name and question	Type	Unit / Categories
Job position / main profession: “How do you consider your position in relation to that farm?” / “What is your main occupation?”	Single Choice	Costa Rica: Producer (Farm owner) Farm worker Uganda: Crop Farmer Other (aggregated from other options)
Worktime, derived from “On average, how many hours do you spend per working day in the field?” and “On average, on all the farms together, how many days do you work per week?”	Integer	Hours per week
Pesticide active ingredients used at the farm over the last twelve months, derived from “During the last twelve months, have you prepared or applied this pesticide* in your farms for crops, for your livestock, or against pests around your house or inside your house?”	Single choice	No Yes Don’t know
Pesticide active ingredients used at the farm over the last seven days, derived from “Have you prepared or applied this pesticide* in the last seven days?”	Single choice	No Yes Don’t know
For each active ingredient*: “How many hours have you applied this pesticide in the last seven days?”	Integer	Hours per week
For each active ingredient*: “On how many acres have you used this pesticide in the last twelve months?”	Integer	Hectares (derived from acres)
Farm size: “In acres, how big is the total area you are cultivating crops on these farms?”	Integer	Hectares
Crops cultivated: “What are the three major crop you are currently growing?”	Multiple choice	List of country specific crops*
Distance between farm and water source: “How many meters is your farm away from a river or spring?”	Integer	Meters
Knowledge, attitude and practices		
Training in pesticide use “Have you ever been trained on how to apply pesticides?”	Single choice	No Yes Don’t know
Training provider: “Who trained you?”	Text	-
Health risk awareness: “Do you believe that pesticides can affect your own health?”	Single choice	No Yes Don’t know
Entry sites to the body: “Through which body parts do you think pesticides can enter us?”	Multiple choice	Skin Nose Mouth Eyes

Variable name and question	Type	Unit / Categories
		None Other (specify)
Bathing after handling/application of pesticides: “How long after you applied pesticides do you take a bath?”	Single choice	Immediately after Few hours later Many hours later The next day or later
Changing of clothes: “How long after you applied pesticides do you change your clothes?”	Single choice	Immediately after Few hours later Many hours later The next day or later
Clothes washing: “Who washes the clothes used in pesticide application?”	Single choice	Me Family Member Washerwoman They aren’t washed
Disposal of residual water: “Where do you discharge the water after washing the pesticide application equipment?”	Multiple choice	On the farm Garden of the house In the drain In the river In the biobed In the pit latrine / in the garbage Where pesticides are mixed
Container disposal: “What do you do with empty pesticide containers or bags?”	Multiple choice	Bury them Recycling Leave in the field/garden Throw in pit latrine Dispose in garbage/landfill Burn them Kept for unknown reasons Kept for reuse
PPE* access: “Do you have access to this equipment?”	Single choice	No Yes Don’t know
PPE* wearing “Do you wear this protective equipment when preparing or applying pesticides?”	Single choice	No Yes Don’t know
PPE* frequency: “How often do you use this protective equipment when preparing or applying pesticides?”	Single choice	Always (100%) Often (75%) Sometimes (50%) Rarely (25%) Never (0%)

Variable name and question	Type	Unit / Categories
		Don't know

Supplementary Table ST2: Listed options and variables for starred (*) items in Supplementary Table ST1.

List of pesticide active ingredients Costa Rica	Boscalid Carbendazim Chlorothalonil Mancozeb Propamocarb Propineb Glyphosate Paraquat Acephate Benfuracarb Carbofuran Chlorpyrifos Cypermethrin Fenamiphos Phorate
List of pesticide active ingredients Uganda	Mancozeb 2,4-D Glyphosate Paraquat Carbaryl Carbofuran Chlorpyrifos Cypermethrin Deltamethrin Diazinon Dichlorvos Dimethoate Lambda-Cyhalothrin Permethrin Profenofos
List of crops Costa Rica	Cabbage Carrot Cauliflower Chilly Coriander Egg plant Flowers Garlic Lettuce Onions

	<ul style="list-style-type: none"> Parsley Potato Tomato Other (specify)
List of Crops Uganda	<ul style="list-style-type: none"> Banana Beans Cassava Ground nuts Maize Okra Onion Passion Fruit Pepper Sugar cane Sweet (potato) Water melon Yam Other (specify)
List of PPE	<ul style="list-style-type: none"> Hat Glasses Mask with carbon filter Mask without carbon filter Long-sleeved shirt Poncho Overall or kimono Rubber apron Gloves Long pants Waterproof pants Gaiters Rubber boots