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

| Variable                           | n   | Multivariate | Univariate |
|------------------------------------|-----|--------------|------------|
| Age                                | 276 | 0 [-0.01 to 0.01] | 0.01 [-0.02 to 0.01] |
| Sex                                | 24  | Reference    | Reference  |
| Education                          | 252 | 0.21 [-0.23 to 0.65] | 0.1 [-0.19 to 0.39] |
| Less than Primary                  | Reference | Reference    | Reference  |
| Primary                            | 107 | 0.11 [-0.03 to 0.25] | 0.19 [-0.05 to 0.33] |
| Secondary                          | 44  | 0.29 [0.05 to 0.56] | 0.28 [0.07 to 0.53] |
| More than Secondary                | 40  | 0.32 [0.09 to 0.55] | 0.37 [0.15 to 0.62] |
| Cost Rica                          | 154 | Reference    | Reference  |
| Nicaragua                          | 122 | -0.07 [-0.24 to 0.11] | -0.23 [-0.37 to 0.01] |
| Married, Cohabitation              | 162 | Reference    | Reference  |
| Single, Separated, Divorced        | 115 | -0.23 [-0.36 to 0.09] | -0.23 [-0.36 to 0.09] |
| Experience in Agriculture          | 276 | Reference    | Reference  |
| Working hours                      | 276 | 0.01 [0 to 0.01] | 0 [0 to 0.01] |
| Farming Practice                   | 136 | Reference    | Reference  |
| 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

| Variable                           | n   | Multivariate | Univariate |
|------------------------------------|-----|--------------|------------|
| Age                                | 257 | -0.02 [-0.03 to 0] | -0.01 [-0.02 to 0] |
| Sex                                | 91  | Reference    | Reference  |
| Education                          | 166 | 0.24 [-0.14 to 0.62] | 0.29 [-0.09 to 0.58] |
| Less than Primary                  | Reference | Reference    | Reference  |
| Primary                            | 58  | 0.39 [0.05 to 0.72] | 0.67 [0.36 to 0.97] |
| Up to lower Secondary              | 90  | 1.12 [0.56 to 1.99] | 1.26 [0.69 to 1.87] |
| Up to upper Secondary              | 13  | 1.37 [0.95 to 1.99] | 1.82 [1.43 to 2.44] |
| More than Secondary                | 18  | Reference    | Reference  |
| Civil Status                       | 164 | Reference    | Reference  |
| Married, Cohabitation              | 47  | -0.03 [-0.4 to 0.25] | -0.1 [-0.78 to 0.1] |
| Occupation                         | 194 | Reference    | Reference  |
| Crop Farmer                        | 194 | 0.32 [0.02 to 0.62] | 0.64 [0.31 to 0.98] |
| Working hours                      | 194 | 0 [0 to 0.01] | 0 [-0.01 to 0.01] |
| Farm size                          | 257 | 0.14 [0.05 to 0.24] | 0.21 [0.11 to 0.32] |
| Experience in Agriculture          | 257 | Reference    | Reference  |
| Experience with Pesticides         | 257 | 0.01 [0 to 0.03] | 0.01 [0 to 0.02] |
| Farming Practice                   | 145 | Mixed        | 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

| Variable                           | n   | Multivariate | Univariate |
|------------------------------------|-----|--------------|------------|
| Age                                | 250 | 1.01 [0.96 to 1.06] | 1.04 [1.02 to 1.06] |
| Education                          | 73  | Reference    | Reference  |
| Primary                            | 102 | 2.56 [1.22 to 5.13] | 3.66 [1.95 to 7.04] |
| Secondary                          | 42  | 3.21 [1.26 to 8.38] | 3.13 [0.85 to 11.71] |
| More than Secondary                | 33  | 2.92 [0.98 to 8.95] | 2.34 [1.02 to 5.44] |
| Cost Rica                          | 185 | Reference    | Reference  |
| Nicaragua                          | 104 | 0.77 [0.35 to 1.71] | 0.35 [0.2 to 0.58] |
| Civil Status                       | 152 | Reference    | Reference  |
| Married, Cohabitation              | 96  | 0.65 [0.33 to 1.29] | 0.56 [0.35 to 0.97] |
| Occupation                         | 148 | Reference    | Reference  |
| Farm Worker                        | 148 | 1.68 [0.76 to 3.73] | 3.62 [2.15 to 6.19] |
| Working hours                      | 250 | 1.01 [0.99 to 1.03] | 1.01 [0.99 to 1.03] |
| Experience in Agriculture          | 250 | 1.04 [0.98 to 1.12] | 1.04 [1.01 to 1.07] |
| Experience with Pesticides         | 250 | 0.97 [0.9 to 1.03] | 1.03 [1.02 to 1.05] |
| Farming Practice                   | 146 | Reference    | Reference  |
| Organic                            | 34  | 3.18 [1.35 to 7.97] | 2.3 [1.07 to 5.21] |

### d) Uganda Pesticide Training

| Variable                           | n   | Multivariate | Univariate |
|------------------------------------|-----|--------------|------------|
| Age                                | 260 | 1 [0.97 to 1.04] | 0.99 [0.98 to 1.01] |
| Sex                                | 93  | Reference    | Reference  |
| Education                          | 167 | 0.96 [0.41 to 2.31] | 0.97 [0.56 to 1.68] |
| Less than Primary                  | Reference | Reference    | Reference  |
| Primary                            | 58  | 1.48 [0.44 to 4.96] | 1.15 [0.42 to 3.02] |
| Up to lower Secondary              | 91  | 5.51 [2.17 to 15.74] | 5.84 [1.86 to 8.47] |
| Up to upper Secondary              | 13  | 11.76 [2.88 to 53.92] | 7.91 [2.86 to 24.82] |
| More than Secondary                | 16  | 3.35 [0.63 to 16.67] | 4.52 [1.52 to 13.27] |
| Civil Status                       | 155 | Reference    | Reference  |
| Married, Cohabitation              | 49  | 2.05 [0.84 to 4.93] | 1.55 [0.62 to 2.86] |
| Occupation                         | 266 | 1.23 [0.3 to 4.6] | 0.9 [0.34 to 2.09] |
| Working hours                      | 250 | 1.01 [0.99 to 1.03] | 0.99 [0.97 to 1.01] |
| Farm size                          | 260 | 1.04 [0.79 to 1.32] | 1.68 [0.9 to 1.29] |
| Experience in Agriculture          | 250 | 0.97 [0.93 to 1.01] | 0.99 [0.97 to 1.01] |
| Experience with Pesticides         | 260 | 1.05 [1.01 to 1.09] | 1.01 [0.96 to 1.03] |
| Farming Practice                   | 145 | Reference    | Reference  |
| Organic                            | 34  | 5.55 [1.66 to 18.74] | 3.55 [1.66 to 9.71] |
| 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**                                        | Derived from pesticide use and occupational variables | Non-Applicator Organic Mixed Conventional               |
| (Farming) practice                                                                         |                     |                                                        |
| 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                                                                 |
|-------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------|
| 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 | Burry 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 | BoscaliId  
|                                               | 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 |
| List of Crops Uganda                                      | List of PPE                                                                 |
|----------------------------------------------------------|-----------------------------------------------------------------------------|
| Parsley                                                  | Hat                                                                         |
| Potato                                                   | Glasses                                                                     |
| Tomato                                                   | Mask with carbon filter                                                    |
| Other (specify)                                          | Mask without carbon filter                                                 |
|                                                           | Long-sleeved shirt                                                         |
|                                                           | Poncho                                                                      |
|                                                           | Overall or kimono                                                          |
|                                                           | Rubber apron                                                                |
|                                                           | Gloves                                                                      |
|                                                           | Long pants                                                                  |
|                                                           | Waterproof pants                                                          |
|                                                           | Gaiters                                                                     |
|                                                           | Rubber boots                                                                |
| Banana                                                   | Sugar cane                                                                  |
| Beans                                                    | Sweet (potato)                                                              |
| Cassava                                                  | Water melon                                                                 |
| Ground nuts                                              | Yam                                                                         |
| Maize                                                    | Other (specify)                                                             |
| Okra                                                     |                                                                             |
| Onion                                                    |                                                                             |
| Passion Fruit                                            |                                                                             |
| Pepper                                                   |                                                                             |
| Sugar cane                                               |                                                                             |
| Sweet (potato)                                           |                                                                             |
| Water melon                                              |                                                                             |
| Yam                                                      |                                                                             |
| Other (specify)                                          |                                                                             |