**Appendix 1. Socio-demographic data and general health conditions**

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| **Personal and health history** | | | | | | | | | |
| 1. Birthdate: | | | 2. Age: | | | | | | |
| 3. Sex: | | | 1.\_\_\_\_Female | | | 2.\_\_\_\_Male | | | |
| 4. Home address and commune of origin (write it): | | |  | | | | | | |
| 5. Place of work and commune (write it): | | |  | | | | | | |
| 6. Phone Number: | | |  | | | | | | |
| 7. Marital status (check with an X): | | | 1.\_\_\_\_Married | | | 2.\_\_\_\_Single | | | |
| 3.\_\_\_\_Cohabitant partner | | | 4.\_\_\_\_Widow | | | |
| 5.\_\_\_\_Separate or Divorced | | | | | | |
| 8. Do you work as a seasonal worker or an agricultural worker? (check with an X): | | | 1.\_\_\_\_Yes | | | 2.\_\_\_\_No | | | |
| 9. Does your partner work on farming? (check with an X): | | | 1. \_\_\_\_Yes | | | 2.\_\_\_\_No | | | |
| 10. What level of education do you have? (check with an X): | | | 1.\_\_\_\_ Illiterate | | | 2.\_\_\_\_Incomplete Elementary | | | |
| 3.\_\_\_\_Elementary Complete | | | 4.\_\_\_\_Incomplete High school | | | |
| 5.\_\_\_\_High School complete | | | 6.\_\_\_\_Technical studies | | | |
| 7.\_\_\_\_Incomplete College | | | 8.\_\_\_\_College complete | | | |
| 11. What is the approximate family income? (Write): | | | | | | | | | |
| 12. How many people (children and adults) live in the home? (Write): | | | | | | | | | |
| 13. Do you have a mental, physical, sensory or psychiatric disability? (check with an X): | | | | | | 1.\_\_\_\_Yes | | | 2.\_\_\_\_No |
| 14. If you are a woman, are you pregnant? (check with an X): | | | | | | 1.\_\_\_\_Yes | | | 2.\_\_\_\_No |
| 15. Drug use (check with an X): | | | | | | 1.\_\_\_\_Yes | | | 2.\_\_\_\_No |
| 16. Do you have some of the following health conditions? (check with an X): | | | | | | | | | |
| 1.\_\_\_\_Anemia | 2.\_\_\_Diabetes | 3.\_\_\_\_Kidney damage | 4.\_\_\_Liver Damage | 5.\_\_\_\_Epilepsy | | | 6.\_\_\_\_Skin allergy or dermatosis | | |
| 7.\_\_\_\_Asthma | 8.\_\_\_Cancer | 9.\_\_Depression | 10.\_\_\_Hypertension | | 11.\_\_\_Heart Disease | | | 12.\_\_\_Anxiety | |
| 17. Drink alcohol? (check with an X): | | | 0.\_\_\_\_No 1.\_\_\_\_ Yes How many drinks a week?: | | | | | | |
| 18. Do you smoke? (check with an X): | | | 0.\_\_\_\_No 1.\_\_\_\_ Yes How many cigarettes a week?: | | | | | | |
| 19. Do you have children with congenital malformations? (check with an X): | | | 1.\_\_\_\_Yes 0.\_\_\_\_No | | | | | | |
| 20. Are you an agricultural worker or work in the field? (check with an X): | | | 1.\_\_\_\_Yes 0.\_\_\_\_No | | | | | | |
| 21. What is your healthcare plan? (check with an X): | | | 1.\_\_\_\_Government healthcare  2.\_\_\_\_Private Insurer  3.\_\_\_\_None  4.\_\_\_\_Do not Know  5.\_\_\_\_Other.  ¿Which one?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |
| 22. Are you covered by a workplace safety and insurance agency? (check with an X): | | | 0.\_\_\_Yes  1.\_\_\_No  2.\_\_\_Do not know | | | | | | |
| 23. If you are an agricultural worker, have you been given acetylcholinesterase tests in your work in the past year?(check with an X): | | | 0.\_\_\_\_Not applicable  1.\_\_\_Yes  2.\_\_\_No | | | | | | |
| 24. What were the results of the tests? (check with an X):: | | | 0.\_\_\_\_Not applicable  1.\_\_\_\_Normal  2.\_\_\_\_Abnormal report  3.\_\_\_\_Did not receive results | | | | | | |
| 25. During the last period that you were exposed to OP pesticides for your agricultural work, did you ever present any of the following symptoms or signs? (check with an X): | | | | | | | | | |
| 1.\_\_\_\_Dizziness | 2.\_\_\_Nausea | 3.\_\_\_\_Fatigue | 4.\_\_\_Vomiting | 5.\_\_\_\_Headache | | | 6.\_\_\_\_Abdominal pain | | |
| 7.\_\_\_\_Diarrhea | 8.\_\_\_Shortness of breath | 9.\_\_\_Leg weakness and/or cramps | 10.\_\_\_Skin injuries | | 11.\_\_\_Insomnia | | | 12.\_\_\_Night sweats | |
| 13.\_\_\_\_Blurry vision | 14.\_\_\_Salivation | 15.\_\_\_Has been intoxicated with OP | 16.\_\_\_Has been hospitalized for OP poisoning | | | | | | |
| 26. If you are an applicator, name the pesticides you apply at work | | | Write the names here: | | | | | | |

**Appendix 2. Final structure of the exposure questionnaire with the items grouped in the four rotated factors.**

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| **Factor 1: Labor conditions in the application of OP pesticides** |  | | | | | | | | | | | |
| 1.- How long have you worked as an agricultural worker? | 0. \_\_\_\_10 years or less | | | | | | 1.\_\_\_\_More than 10 years | | | | | |
| 2.-Are you currently working applying pesticides? | 1.\_\_\_\_Yes | | | | | | 0.\_\_\_\_No | | | | | |
| 3.-When was your last pesticide application? | 0.\_\_\_\_Not applicable | | | | | | 1.\_\_\_\_2 years or more | | | | | |
| 2.\_\_\_\_Less than 2 years | | | | | |  | | | | | |
| 4.-Do you work mostly as a seasonal or  permanent pesticide applicator? (Check one) | 0.\_\_\_\_Not applicable | | | | | | 1.\_\_\_\_Seasonal | | | | | |
| 2.\_\_\_\_Permanent | | | | | |  | | | | | |
| 5.-How many years have you applied pesticides? | 0.\_\_\_\_Not applicable | | | | | | 1.\_\_\_\_10 years or less | | | | | |
| 2.\_\_\_\_More than 10 years | | | | | |  | | | | | |
| 6.-Do you have a pesticide applicator license? | 1.\_\_\_\_Yes | | | | | | 0.\_\_\_\_No | | | | | |
| 7.-Do you know the health risks you are exposed to when applying or mixing pesticides? | 1.\_\_\_\_Yes | 2.\_\_\_\_No | | | | | | | | | 0.\_\_\_\_Not applicable | |
| 8.-Are you trained on the health risks of pesticides? | 1.\_\_\_\_Yes | 2.\_\_\_\_No | | | | | | | | | 0.\_\_\_\_Not applicable | |
| 9.-Do you eat, drink or smoke during the application? | 1.\_\_\_\_No | 2.\_\_\_\_Yes or Occasionally | | | | | | | | | | 0.\_\_\_\_Not applicable |
| 10.-During or after pesticide application, do you wash your hands before smoking, eating or drinking? | 1.\_\_\_\_Yes | 2.\_\_\_\_No or Occasionally | | | | | | | | | | 0.\_\_\_\_Not applicable |
| 11.-What type of pesticide do you recall applying? (Can check more than one option)  (Internal code for answers rating: 0= Not applicable; 1= Only one OP pesticide; 2= More than one OP pesticide) | 0.\_\_\_\_Not applicable OP | | | | | | 1.\_\_\_\_Chlorpyrifos (Lorsban, Troya) | | | | | |
| 2.\_\_\_\_Methamidophos (MTD 600, Monitor, Tamaron) | | | | | | 3.\_\_\_\_Azinphosmethyl (Gusathion) | | | | | |
| 4.\_\_\_\_Metidation | | | | | | 5.\_\_\_\_Diazinon | | | | | |
| 6.\_\_\_\_Phosmet | | | | | | 7.\_\_\_\_Dimethoate | | | | | |
| 8.\_\_\_\_Profenofos | | | | | | 9.\_\_\_\_Cadusafos | | | | | |
| 10.\_\_\_\_Other OP | | | (Name them): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | | |
| 12.- Do you use manual pump backpack to apply OP pesticides? | 1.\_\_\_\_Yes | | | | | | 0.\_\_\_\_No or Not applicable | | | | | |
| 13. Do you use a motorized pump backpack to apply OP pesticides? | 1.\_\_\_\_Yes | | | | | | 0.\_\_\_\_No or Not applicable | | | | | |
| 14. Do you use a tractor operated nebulizer or pump to apply OP pesticides? | 1.\_\_\_\_Yes | | | | | | 0.\_\_\_\_No or Not applicable | | | | | |
| 15.-Where do you wash the machinery that was used to apply pesticides? (Check one option) | 0.\_\_\_\_Does not wash, not applicable | | | | | | 1.\_\_\_\_In a dedicated place for washing | | | | | |
| 2.\_\_\_\_Yard, orchard, pasture or field | | | | | | 3.\_\_\_\_Inside the house | | | | | |
| 16.-Where do you store the pesticides? (Check one option) | 0.\_\_\_\_Not applicable | | | | | | 1.\_\_\_\_Warehouse at home or work | | | | | |
| 2.\_\_\_\_In the house’s yard | | | | | | 3.\_\_\_\_Inside the house | | | | | |
| 17.-Besides applying OP pesticides, do you mix and prepare them? | 1.\_\_\_\_Yes | | | | | | 0.\_\_\_\_No or Not applicable | | | | | |
| 18.-The place where the pesticide is mixed is... | 0.\_\_\_\_Not applicable | | | | 1.\_\_\_\_Open | | | | | | | 2.\_\_\_\_Closed |
| 19.-Do you wear personal protective equipment when mixing? | 0.\_\_\_\_Not applicable | | | | 1.\_\_\_\_Yes | | | | | | | 2.\_\_\_\_No |
| 20.-Do you change your clothes after the application? | 1.\_\_\_\_Yes | 2.\_\_\_\_No or Occasionally | | | | | | | | | | 0.\_\_\_\_Not applicable |
| 21.-If you change your clothes after work, where do you do it? (check one option) | 1.\_\_\_\_Work | | 2.\_\_\_\_Home | | | | | | | 0.\_\_\_\_Not applicable | | |
| 22.-How long does it take between the end of the application and taking a shower or bath? (check one option) | 1.\_\_\_\_Less than 15 minutes | | | | | | | 2.\_\_\_\_15 minutes or mores | | | | |
| 0.\_\_\_\_Not applicable | | | | | |  | | | | | |
| **Factor 2: Use of PPE**  In your work as an agricultural worker, check if you use the following Personal Protective Equipment (PPE): |  | | | | | | | | | | | |
| 23.-Use of PPE in hands (gloves) | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 24.-Use of PPE in the head (hat) | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 25.-Use of protective eyewear (googles, face shield or safety glasses) | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 26.-Use of Respiratory PPE (Respiratory mask with recommended filters and facial protection) | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 27.- Use of PPE in the body (Waterproof suit with no cuts or holes) | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 28.-Use of PPE in the feet (rubber boot) | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 29.-Frequency of use of PPE | 0.\_\_\_\_Always | | | | | 1.\_\_\_\_Never or occasionally | | | | | | |
| **Factor 3: Workplace conditions that prevent exposure to OP** |  | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| 30.- In our workplace we have showers | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 31.- In our workplace we have washbasin | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 32.- In our workplace we have hot water | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 33.-In our workplace we have drinking water | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 34.-In our workplace we have toilet | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| **Factor 4: Home conditions related to OP exposure** |  | | | | | | | | | | | |
| 35.-Do you have a greenhouse, orchard or field at home? | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |
| 36.-Approximate distance from farms to your house (in meters) (Check one option) | 0.\_\_\_\_More than 500 meters | | | | | | | | 1.\_\_\_\_500 meters or less | | | |
| 37.-Use organophosphate pesticides at home | 0.\_\_\_\_Yes | | | | | | 1.\_\_\_\_No | | | | | |