

APPENDIX A: THE SURVEY INSTRUMENT

Interview Questionnaire:

Name: _____ Date: _____

Enumerator: _____

Municipality: _____ Barangay: _____

Farm Operations and Characteristics:

1. Have you grown the following in the past 3 years?

	<u>Yes</u>	<u>No</u>
Onions		
Eggplants		

2. What is your total farm size? _____

3. What crops have you planted in the past year (1996-1997) and how many hectares did you use for each crop?

Cropping Season	Crops Planted	Number of Hectares
Wet Season (rice)		
Dry Season (vegetables)		

4. How many parcels of land did you use for onion/eggplant and what were the yields per parcel?

Crop	No. of Parcels	Area per Parcel	Yield per Parcel
Onion Varieties			
Eggplant Varieties			

5. What is the dominant soil type in your farm? _____

6. What is the source of water for your vegetable crops? _____

Pest Management Practices

7. How would you describe the severity of your pest problem?

Negligible [] Moderate [] Extreme []

8. What are the most problematic pests?

In onions: _____ In eggplants: _____

9. How did you control these pests? Please check if you practiced any of the following pest management strategies

Pesticide Application	[]	Water Treatment	[]
Use of Resistant Varieties	[]	Use of Treated Seeds	[]
Scouting/Field Monitoring	[]	Indicate source of seeds	_____
Passive Monitoring Devices	[]	Use of Beneficial Insects	[]
Crop Rotation	[]	Others:	_____

10. Do you check for presence of pests (insects, weeds, nematodes, etc) before applying pesticides? Yes [] No []

11. Do you keep records of pest densities, cultural procedures, farm practices, weather factors, or pesticide applications? Yes [] No []

12. Do you check your sprayer regularly (for leaks and proper calibration)? Yes [] No []

13. Where did you get pest control advice for your vegetables?

Another Farmer []
 DA Technician []
 Farmers' Cooperatives []
 Pesticide Sales Agent []
 Farmer Field School []
 Others (Specify) _____

14. What pesticides did you apply on onions/eggplant and kindly indicate amount and frequency of application?

ONION:

PESTICIDE NAME	DOSAGE (ML)	FREQUENCY(PER SEASON)	NO. OF HECTARES

EGGPLANT:

PESTICIDE NAME	DOSAGE (ML)	FREQUENCY(PER SEASON)	NO. OF HECTARES

15. How much did you spend on chemicals last season? Onions: _____ Eggplant: _____

16. What is the most widely used pesticide for your vegetables?

For Onions: _____

For Eggplant: _____

17. What percentage of your total annual operating expenses is spent on pesticides? _____

18. What factors did you consider in deciding when and how much to apply pesticides?

FACTORS	Please Check
Pest density	
Kinds of pests present	
Toxicity of pesticides	
Price of Pesticide	
Calendar Spraying Sked	
Others:	

Knowledge of IPM and Adoption of IPM Practices

19. Have you heard of Integrated Pest Management (IPM)? Yes [] No []

20. How would you describe the concept of IPM? _____

21. How did you hear about IPM?

Other Farmers [] Fliers []
 IPM Training [] Others (specify) _____
 Extension Agents []

22. Do you think this is an important program? Yes [] No []

23. Have you attended any training on IPM before? (indicate if training is on rice-IPM)
 Yes [] No []

24. Have you attended a Farmer Field School? Yes [] No []

If answer to Q23 and Q24 is No, proceed to Q29.

25. Did you adopt any of the practices or IPM strategies you learned in the training program?

Yes [] No []

26. Describe the IPM techniques you learned in the training program?

27. Did you reduce pesticide use after the training? Yes [] No []

By how much did you reduce your pesticide application? _____

28. How much of the various pesticides did you use before and after the training?

PESTICIDE NAME	DOSAGE (ML)		FREQUENCY		NO. OF HECTARES
	Before	After	Before	After	

Farmer Characteristics:

29. How many years have you been farming? _____

30. What is your age? _____

31. What is the highest level of education you attained? _____

32. How many hours per week do you spend in the farm? _____

33. What was your net annual income from the farm business last year? _____

34. How much income did you earn from vegetable farming last year? _____

35. Do you have other jobs aside from farming? Yes [] No []

36. How much income do you earn from other sources? _____

37. What is your tenure status?

- Owner-Operator
- Leasee
- Tenant
- Hired Laborer
- Others (specify) _____

Perceptions about the Health and Environmental Impacts of Pesticides

38. In your opinion, do pesticides adversely affect the following categories?

CATEGORIES	Yes	No	Don't Know
Human Health			
Beneficial Insects			
Fish & other Aquatic Species			
Birds			
Farm Animals, Dogs, Cats			

39. Have you ever experienced being sick from pesticide application?

- Yes No

What exactly did you feel? _____

40. Have you ever noticed incidence of pest resurgence/outbreak after an extensive pesticide application? Yes No

41. Were there any incidents of pesticide poisoning on farm animals, cats, or dogs that happened in your farm? _____

42. Have you ever noticed any incidence of fish kills due to pesticides? _____

43. What kinds of fish disappeared? _____

44. Have you ever noticed any incidence of bird kills due to pesticides? _____

45. How important to you are the following possible risks from the use of pesticides on your farm?

Possible Risks	Very Important	Somewhat Important	Not Important	Relative Rank
Damage to human health from Handling and applying pesticides				
Harmful effects to fish & other Aquatic species				
Harmful effects to birds				
Harmful effects to mammals, farm animals				
Toxicity to beneficial insects				

Adoption of specific IPM technologies being developed for onions and eggplant:

PhilRice researchers are conducting experiments to test various cultural, chemical, and biological control practices that could possibly reduce pesticide applications without affecting yields. These practices are being developed not only to reduce costs but also to protect human health and prevent environmental degradation. We would like to determine your willingness to adopt the following technologies.

46. Do you think you will adopt any of the following practices? Indicate if already being practiced.

- | | <u>Yes</u> | <u>No</u> |
|--|------------|-----------|
| a. regular removal of damaged eggplant | | |
| b. spraying of Brodan only every 3 weeks | | |
| c. rice straw mulching | | |
| d. 1 herbicide application + 1 handweeding (instead of 2 herbicide applications + 2 handweeding) | | |
| e. rice hull burning | | |
| f. use of castor as trap plant | | |
| g. use of pheromone traps | | |
| h. biological controls (i.e. NPV, Bt, etc) | | |

Willingness-to-Pay Questions:

47. We would like to ask you questions about pesticide choices you might make next year. Assume that next year you will be planting the same crops and that climatic and pest conditions will be the same as this year.

- (a) Suppose that a chemical company made a new formulation of (specify the most familiar/commonly used insecticide based on answer to question no. 16)_____ that was very similar to this insecticide in all respects (especially efficacy) and the only difference is that this new formulation does not cause human health problems. If this new formulation costs P____ (offer different prices higher than the cost of stated insecticide in 50-peso increments) will you buy this new formulation?
 (Note: as soon as the respondent says NO, indicate last price agreeable to respondent)

(b) Suppose that a chemical company made a new formulation of (specify the most familiar/commonly used insecticide based on answer to question no. 16) _____ that was very similar to this insecticide in all respects (especially efficacy) and the only difference is that this new formulation does not kill the natural pest enemies or beneficial insects. If this new formulation costs P_____ (*offer different prices higher than the cost of stated insecticide in 50-peso increments*) will you buy this new formulation?

(Note: as soon as the respondent says NO, indicate last price agreeable to respondent)

(c) Suppose that a chemical company made a new formulation of (specify the most familiar/commonly used insecticide based on answer to question no. 16) _____ that was very similar to this insecticide in all respects (especially efficacy) and the only difference is that this new formulation does not kill or contaminate the fish and other aquatic species in our surface waters. If this new formulation costs P_____ (*offer different prices higher than the cost of stated insecticide in 50-peso increments*) will you buy this new formulation?

(Note: as soon as the respondent says NO, indicate last price agreeable to respondent)

(d) Suppose that a chemical company made a new formulation of (specify the most familiar/commonly used insecticide based on answer to question no. 16) _____ that was very similar to this insecticide in all respects (especially efficacy) and the only difference is that this new formulation does not kill the birds in this area. If this new formulation costs P_____ (*offer different prices higher than the cost of stated insecticide in 50-peso increments*) will you buy this new formulation?

(Note: as soon as the respondent says NO, indicate last price agreeable to respondent)

(e) Suppose that a chemical company made a new formulation of (specify the most familiar/commonly used insecticide based on answer to question no. 16) _____ that was very similar to this insecticide in all respects (especially efficacy) and the only difference is that this new formulation does not kill the animals in the farm including the dogs and cats. If this new formulation costs P_____ (*offer different prices higher than the cost of stated insecticide in 50-peso increments*) will you buy this new formulation?

(Note: as soon as the respondent says NO, indicate last price agreeable to respondent)

Related Information

48. Is there any body of water containing fish that is near your farm?

Yes [] No []

How near is it (in meters)? _____

49. What kinds of fish are found in this body of water? _____

50. Do you consume fish from this source? Yes [] No []

51. What kinds of animals do you have here in the farm? _____

52. What are your sources of drinking water? _____

53. Do you boil your drinking water? Yes [] No []

54. Do you have a deep well? Yes [] No []

How deep is it? _____

55. Do you wear protective clothing when you apply pesticides?

Yes No

Mask/Substitutes for mask

Long Pants

Long Sleeves

Slippers/Shoes

56. What is the daily wage of pesticide applicators? _____

57. What is the daily wage paid to workers that do handweeding? _____

58. What is the daily wage paid to transplanters/harvesters? _____

59. Do you pay a higher/lower wage rate for the pesticide applicators? _____

60. How many children are living near the farm? _____