



# Kohat University of Science & Technology, Pakistan

Department of Microbiology, Ph # (0922) -560376

## Questionnaire

### Assessment of Environmental and Farm-Level Risk Factors for *Cyclospora cayentanensis* Contamination

#### Section A: Identification and Sampling Information

1. Questionnaire ID: \_\_\_\_\_
2. Date of sampling: \_\_\_\_ / \_\_\_\_ / 2025
3. District:
  - Peshawar
  - Kohat
4. Sampling node:
  - Farm (field)
  - Market (wholesale)
5. Sample type:
  - Fresh produce
  - Irrigation water
6. Sample ID (linked to laboratory record): \_\_\_\_\_
7. Produce type (if applicable):
  - Coriander
  - Mint
  - Lettuce
  - Spinach
  - Cucumber
  - Tomato

#### Section B: Farm Characteristics (Farm Samples Only)

8. Approximate farm size:
  - <1 acre
  - 1–5 acres
  - >5 acres
9. Type of cultivation:
  - Peri-urban mixed farming
  - Intensive vegetable production
  - Other: \_\_\_\_\_
10. Presence of livestock near cultivation area:
  - Yes
  - No



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### Section C: Irrigation Practices

11. Primary irrigation source:
  - Canal/surface water
  - Tube-well (groundwater)
  - Mixed sources
12. Is irrigation water treated before use?
  - Yes
  - No
13. If yes, method used:
  - Filtration
  - Sedimentation
  - Chemical treatment
  - Other: \_\_\_\_\_
14. Method of irrigation:
  - Flood irrigation
  - Sprinkler
  - Drip

### Section D: Environmental Exposure

15. Distance from nearest drainage/sewage channel:
  - ≤50 meters
  - >50 meters
16. Type of nearby drainage:
  - Open sewage
  - Agricultural runoff
  - Mixed wastewater
  - None
17. Evidence of wastewater mixing with irrigation water:
  - Yes
  - No
  - Not sure
18. Evidence of recent flooding (past 1–2 months):
  - Yes
  - No

### Section E: Post-Harvest Handling (Farm Level)

19. Is produce washed after harvest?
  - Yes
  - No



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20. Source of water used for rinsing:

- Canal water
- Tube-well water
- Tap water
- Stored water

21. Is rinsing water treated?

- Yes
- No

22. If yes, treatment method:

- Filtration
- Boiling
- Chemical treatment
- Other: \_\_\_\_\_

23. Handling after washing:

- Immediate transport
- Temporary storage
- Open-air drying

### Section F: Market-Level Practices (Market Samples Only)

24. Source of produce:

- Local farm
- Wholesale distributor
- Mixed

25. Is produce washed at market?

- Yes
- No

26. Water source used at market:

- Tap water
- Stored water
- Surface water

27. Display conditions:

- Open exposure
- Covered
- Refrigerated

28. Visible exposure to dust/contamination:

- High
- Moderate
- Low



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### Section G: Hygiene and Sanitation

29. Availability of sanitation facilities nearby:

- Yes
- No

30. Waste disposal system:

- Organized disposal
- Open dumping
- Drain discharge

31. Worker hygiene practices:

- Hand washing
- Gloves
- None

### Section H: Seasonal and Environmental Conditions

32. Season during sampling:

- Pre-monsoon
- Monsoon

33. Recent rainfall (past 7 days):

- Yes
- No

### Section I: Laboratory Linkage (to be completed after analysis)

34. PCR result:

- Positive
- Negative

35. PCR type:

- Primary PCR (~630 bp)
- Nested PCR (~298 bp)

Name of Researcher / Student: \_\_\_\_\_

Signature: \_\_\_\_\_

Name of Principal Investigator: \_\_\_\_\_

Signature: \_\_\_\_\_