✓ ChecklistGuro

Pest & Disease Pressure Mapping Checklist

Planning & Preparation

Activities to define scope, resources, and methodology before field work begins.

Project Name

Write something...

Start Date of Mapping

Enter date...

Total Area to be Mapped (hectares/acres)

Enter a number...

Crop/Plant Type

☐ Corn

☐ Soybeans

☐ Wheat

☐ Other

Objectives of the Mapping Project

Write something...

Potential Pests/Diseases of Concern

☐ Corn Earworm

☐ Soybean Aphid

☐ Wheat Stem Rust

☐ Late Blight

☐ Other - Specify in Long Text

Previous Pest/Disease Reports (if available)

⬆ Upload File

Site Selection & Stratification

Identifying representative areas and defining strata for mapping.

Number of Sites Selected

Enter a number...

Selection Criteria Used (e.g., crop type, field history)

☐ Crop Type

☐ Field History

☐ Farmer Input

☐ Previous Pest/Disease Outbreaks

☐ Field Size

Justification for Site Selection

Write something...

Stratification Factors Considered

- ☐ Altitude
- ☐ Slope
- ☐ Soil Type
- ☐ Irrigation Status
- ☐ Crop Variety
- ☐ Previous Management Practices

GPS Coordinates of Selected Sites

⊙ Set My Current Location

Number of Strata Created

Enter a number...

Description of Strata Characteristics

Write something...

Data Collection - Visual Assessment

On-site observation and documentation of pest/disease symptoms and signs.

Observed Pest(s)

☐ Aphids

☐ Spider Mites

☐ Caterpillars

☐ Fungus Gnats

☐ Thrips

☐ Leaf Miners

☐ None Observed

Observed Disease(s)

☐ Early Blight

☐ Late Blight

☐ Powdery Mildew

☐ Downy Mildew

☐ Rust

☐ Anthracnose

☐ None Observed

Percentage of Plants Affected (Estimate)

Enter a number...

Description of Symptoms

Write something...

Severity Level (Visual Estimate)

- ☐ Trace
- ☐ Minor
- ☐ Moderate
- ☐ Severe
- ☐ Critical

Photo Documentation

⬆ Upload File

Precise Location of Observation

📍 Set My Current Location

Data Collection - Environmental Factors

Gathering information on environmental conditions influencing pest and disease development.

Date of Environmental Data Collection

Enter date...

Time of Environmental Data Collection

Air Temperature (°C)

Enter a number...

Soil Temperature (°C) - @ 10cm depth

Enter a number...

Relative Humidity (%)

Enter a number...

Rainfall (mm) - Last 24 Hours

Enter a number...

Solar Radiation (W/m²)

Enter a number...

Wind Speed (km/h)

- ☐ 0-5
- ☐ 6-15
- ☐ 16-25
- ☐ 26+

Soil Moisture Level

- ☐ Very Dry
- ☐ Dry
- ☐ Slightly Moist
- ☐ Moist
- ☐ Very Moist

Data Recording & Standardization

Ensuring consistent data recording across different locations and observers.

Plot/Field ID

Enter a number...

Date of Observation

Enter date...

Time of Observation

Crop Type

- ☐ Maize
- ☐ Wheat
- ☐ Soybean
- ☐ Rice
- ☐ Other

Observed Pests/Diseases

- ☐ Aphids
- ☐ Spider Mites
- ☐ Corn Earworm
- ☐ Powdery Mildew
- ☐ Rust
- ☐ Bacterial Leaf Spot
- ☐ None

Estimated Infestation/Disease Severity (0-100)

Enter a number...

Detailed Description of Symptoms/Signs

Write something...

GPS Coordinates of Observation

📍 Set My Current Location

Georeferencing & Mapping

Assigning geographic coordinates to observations and creating spatial representations.

Record GPS Coordinates of Observation Point

📍 Set My Current Location

Elevation (meters)

Enter a number...

Mapping Method Used (e.g., GIS, Hand-drawn)

☐ GIS Software (Specify)

☐ Hand-drawn Map

☐ Other (Specify)

Attach Map Image/Screenshot

⬆ Upload File

Describe Map Legend and Symbol Key

Write something...

Coordinate Reference System (CRS)

☐ WGS 1984

☐ UTM

☐ Other (Specify)

Scale of Map (e.g., 1:10,000)

Enter a number...

Data Analysis & Interpretation

Analyzing collected data to identify patterns and assess pressure levels.

Calculate Disease Incidence (%)

Enter a number...

Calculate Pest Severity Index (0-100)

Enter a number...

Dominant Pest/Disease Identified

- [ ] Insect
- [ ] Fungal
- [ ] Bacterial
- [ ] Viral
- [ ] Nematode
- [ ] Unknown

Secondary Pest/Disease Presence (Select All That Apply)

- [ ] Insect
- [ ] Fungal
- [ ] Bacterial
- [ ] Viral
- [ ] Nematode
- [ ] None

Average Leaf Area Affected (%)

Enter a number...

Describe Observed Patterns and Trends

Write something...

Identify High-Risk Zones (Geolocate)

📍 Set My Current Location

Overall Pressure Level (Subjective Assessment)

☐ Low

☐ Moderate

☐ High

Reporting & Communication

Documenting findings and communicating them to relevant stakeholders.

Executive Summary of Findings

Write something...

Identified Pests & Diseases (Select all that apply)

- ☐ Aphids
- ☐ Spider Mites
- ☐ Fusarium Wilt
- ☐ Bacterial Leaf Spot
- ☐ Other (Specify in Long Text)

Estimated Severity Index (0-100)

Enter a number...

Maps and Spatial Data (Shapefile, GeoJSON, etc.)

⬆ Upload File

Recommendations for Control Measures

Write something...

Recipient of Report (Choose One)

- ☐ Farm Manager
- ☐ Crop Specialist
- ☐ Regional Extension Office
- ☐ Other (Specify in Long Text)

Report Submission Date

Enter date...

Review & Refinement

Evaluating the mapping process and identifying areas for improvement in future iterations.

Summarize overall effectiveness of the mapping methodology.

Write something...

Estimate the percentage of map accuracy (based on ground truthing or comparison to known infestations).

Enter a number...

Which data collection methods proved most effective? (Select all that apply)

☐ Visual Assessment
☐ Drone Imagery
☐ Farmer Interviews
☐ Trap Counts
☐ Soil Sampling

What was the biggest challenge encountered during the mapping process?

☐ Resource limitations (personnel, equipment)
☐ Difficulties in accessing certain areas
☐ Inconsistent data recording
☐ Lack of farmer cooperation
☐ Unexpected environmental conditions

Date of this review.

Enter date...

Recommendations for improving data recording standardization.

Write something...

Was the chosen map projection suitable for the area?

- [ ] Yes
- [ ] No
- [ ] Unsure