

Weed Infestation Mapping Checklist

Planning & Preparation

Defining scope, objectives, and resources needed for the weed infestation mapping project.

Total Area to be Mapped (hectares) Enter a number	
Project Goal (Select one)	
☐ Initial Weed Survey	
Monitoring Weed Spread	
Supporting Herbicide Application	
Regulatory Compliance	
Project Start Date	
Enter date	
Project End Date	
Enter date	

Define Objectives of the Mapping Effort	
Write something	
Potential Weed Species of Concern (Select all that apply)	
Kochia	
Russian Thistle	
Canada Thistle	
Leafy Spurge	
Other (Specify in LONG_TEXT)	
Contact Person Name	
Write something	
Contact Phone Number	
Write something	
Write something	
Write something Describe Existing Weed Management Strategies (if any)	

Data Acquisition - Remote Sensing

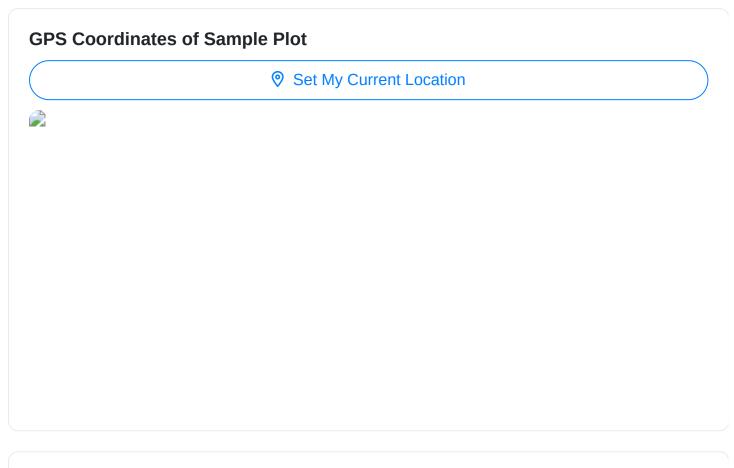
Gathering imagery and other remote sensing data for weed identification and mapping.

Satellite Imagery Source Sentinel-2 Landsat Planet Labs Drone/UAV Imagery Other (Specify)
Spatial Resolution (meters) Enter a number
Acquisition Date Range Enter date
Cloud Mask/Atmospheric Correction File (if applicable) L Upload File
Bands Utilized (e.g., RGB, NDVI) RGB NDVI NDRE NIR Red Edge

Notes on Imagery Selection/Justification Write something...

Data Acquisition - Ground Truthing

Collecting ground truth data to validate remote sensing interpretations.



Plot Size (m²)

Enter a number...

Observed Weed Species (Select all that apply) Kochia
Russian Thistle
Canada Thistle
Cheatgrass
Other (Specify in Long Text)
Other Weed Species (if selected)
Write something
Weed Cover (%) - Visual Estimate Enter a number
Detailed Description of Weed Infestation (e.g., density, health) Write something
Growth Stage of Dominant Weed Species Seedling Vegetative Flowering Seeding

Photograph of Weed Infestation



Image Processing & Analysis

Processing and analyzing imagery to identify and delineate weed infestations.

Satellite Image Resolution (meters)
Enter a number
Imaga Enhancement Technique Applied
Image Enhancement Technique Applied None
Contrast Stretching
Edge Enhancement
Histogram Equalization
Thotogram Equalization
Spectral Indices Calculated
NDVI
□ EVI
SAVI
NDRE
NDREOther (Specify in LONG_TEXT)
Other (Specify in LONG_TEXT) If 'Other' Spectral Index selected, please specify:
Other (Specify in LONG_TEXT)

Threshold Value (for weed differentiation)	
Enter a number	
Classification Method Used	
☐ Visual Interpretation	
Supervised Classification	
Unsupervised Classification	
Object-Based Image Analysis (OBIA)	
Describe any specific image processing steps taken (e.g., noise reduction, atmospheric correction)	
Write something	
Example Processed Image (for quality assurance) L Upload File	
Geographic Information System (GIS) Integration Importing, managing, and analyzing weed infestation data within a GIS environment.	
GIS Software Used	
ArcGIS Pro	
QGIS	
Other (Specify in Long Text)	

Specify GIS Software (if 'Other')	
Write something	
Shapefile/Geojson of Weed Infestation Polygons	
4 Upload File	
Spatial Resolution of Data (meters)	
Enter a number	
Coordinate Reference System (CRS)	
WGS 84 (EPSG:4326)	
UTM Zone (Specify in Long Text)	
State Plane (Specify in Long Text)	
Other (Specify in Long Text)	
Specify CRS (if 'Other' or UTM/State Plane)	
Write something	
write something	
Buffering Distance (meters)	
Enter a number	

Notes on Data Integration	
Write something	
Mapping & Visualization Creating maps and visualizations to communicate weed infestation patterns and extent.	
Base Map Used for Visualization Satellite Imagery Topographic Map Parcel Boundaries Soil Maps	
Visualization Layers Included Weed Infestation Polygons Field Boundaries Drainage Patterns Elevation Soil Type	
Scale of the Map (e.g., 1:5000) Enter a number	
Description of Symbolization/Color Ramps Used Write something	

Map Projection Used
☐ UTM
State Plane
Geographic (Latitude/Longitude)
Exported Map Image (.jpg, .png, .pdf)
La Upload File
Notes on Map Interpretation & Potential Biases
Write something
Deposition ? Decumentation
Reporting & Documentation
Documenting methods, findings, and recommendations for weed management.
Executive Summary
Write something
Methodology Description
Write something

Total Area of Infestation (hectares/acres)	
Enter a number	
Dominant Weed Species Identified	
Species A	
Species B	
Species C	
Other (specify in long_text)	
Recommendations for Weed Management	
Write something	
Map File (e.g., shapefile, GeoTIFF, PDF) L Upload File	
Report Creation Date	
Enter date	
Limitations and Uncertainties	
Limitations and oncertainties	
Write something	
	1 1

Report Audience
Farmer/Landowner
Agricultural Consultant Government Agency
Other
Data Management & Storage
Ensuring proper organization, security, and preservation of data collected and processed.
Project Data Directory Name
Write something
Data Retention Period (Years)
Enter a number
Data Backup Procedures (Detailed description)
Write something
Data Storage Location
Local Server
Cloud Storage (Specify)
Shared Network Drive

Data File Formats Used GeoTIFF
□ CooTIEE
Geotiff
Shapefile
□ csv
Raster Data
Other (Specify)
Other (Specify)
Last Data Backup Date
Enter date
Access Control Procedures (Who has access and what are their permissions?)
Write something
Data Storage Security Audit Report (if applicable)
4 Upload File