✅ ChecklistGuro

Yield Potential Estimation (Based on Growth Data)

Data Collection & Preparation

Gathering and organizing essential data for yield estimation.

Field ID

Enter a number...

Data Collection Date

Enter date...

GPS Coordinates of Sampling Point

📍 Set My Current Location

Plot Size (Area - e.g., hectares)

Enter a number...

Crop Variety

☐ Variety A

☐ Variety B

☐ Variety C

☐ Other (Specify in Long Text)

Crop Variety Details (if 'Other' selected above)

Write something...

Number of Replicates/Sampling Points

Enter a number...

Field Map/Imagery (Optional)

⬆ Upload File

Growth Stage Assessment

Accurate determination of crop growth stages throughout the season.

Date of V1 (V1 emergence) observation

Enter date...

Date of R1 (Flowering) observation

Enter date...

Date of R5 (Pollination) observation

Enter date...

Days from Planting to V1

Enter a number...

Days from V1 to R1

Enter a number...

Number of nodes with visible flowers (R1 stage)

Enter a number...

Observed crop uniformity (regarding development)

- [ ] Uniform
- [ ] Slightly Uneven
- [ ] Uneven
- [ ] Highly Uneven

Notes/Comments on Growth Stage Assessment

Write something...

Vegetative Growth Metrics

Measurement and analysis of vegetative growth indicators.

Plant Height (cm)

Enter a number...

Leaf Area Index (LAI)

Enter a number...

Stem Diameter (mm)

Enter a number...

Biomass (Dry Weight, g)

Enter a number...

Leaf Color (Visual Assessment)

☐ Dark Green

☐ Medium Green

☐ Pale Green

☐ Yellowing

☐ Other

Number of Leaves per Plant

Enter a number...

Notes on Vegetative Growth (e.g., unusual patterns, signs of stress)

Write something...

Date of Measurement

Enter date...

Reproductive Growth Metrics

Assessment of metrics related to flowering, fruit/grain set, and development.

Days to Flowering (DTF)

Enter a number...

Number of Flower Clusters per Plant

Enter a number...

Average Number of Flowers per Cluster

Enter a number...

Percentage of Flower Retention (Estimated)

Enter a number...

Average Fruit/Grain Size (Diameter/Length)

Enter a number...

Percentage of Fruit/Grain Set (Estimated)

Enter a number...

Stage of Fruit/Grain Development (e.g., BBCH Scale)

- [ ] BBCH 1
- [ ] BBCH 2
- [ ] BBCH 3
- [ ] BBCH 4
- [ ] BBCH 5
- [ ] BBCH 6
- [ ] BBCH 7
- [ ] BBCH 8

Notes on Reproductive Health and Anomalies

Write something...

Environmental Data Integration

Incorporating relevant environmental factors (weather, soil conditions).

Average Daily Temperature (°C)

Enter a number...

Total Rainfall (mm)

Enter a number...

First Frost Date (Expected)

Enter date...

Last Frost Date (Observed)

Enter date...

Average Soil Moisture (%)

Enter a number...

Solar Radiation (MJ/m²/day)

Enter a number...

Dominant Wind Direction

- ☐ North
- ☐ South
- ☐ East
- ☐ West
- ☐ North-East
- ☐ North-West
- ☐ South-East
- ☐ South-West

Notes on Unusual Weather Events (e.g., hail, drought)

Write something...

Model Selection & Calibration

Choosing and adjusting the yield estimation model.

Choose Yield Estimation Model

- ☐ Regression-Based Model
- ☐ Machine Learning Model (e.g., Random Forest)
- ☐ Process-Based Model
- ☐ Historical Average & Trend Analysis

Number of Historical Data Points Used for Calibration

Enter a number...

Justification for Model Choice

Write something...

Calibration Parameter 1 (e.g., Regression Coefficient)

Enter a number...

Calibration Parameter 2 (e.g., Intercept)

Enter a number...

Calibration Data File (if applicable)

⬆ Upload File

Describe any data transformations performed

Write something...

Error Metric Used for Calibration

☐ Mean Absolute Error (MAE)

☐ Root Mean Squared Error (RMSE)

☐ R-squared

Yield Prediction & Analysis

Generating yield estimates and analyzing results.

Base Yield Estimate (Units/Area)

Enter a number...

Adjustment Factor for Growth Data

Enter a number...

Yield Prediction Model Used

☐ Regression Model

☐ Machine Learning Model

☐ Phenological Model

☐ Simple Calculation (e.g., based on stand count)

Estimated Yield (Units/Area)

Enter a number...

Rationale for Yield Estimate

Write something...

Confidence Level (%)

Enter a number...

Yield Trend (Compared to Historical Data)

☐ Above Average

☐ Average

☐ Below Average

☐ Significantly Above Average

☐ Significantly Below Average

Notes/Comments on Yield Prediction

Write something...

Validation & Refinement

Comparing predictions with actual yield and improving the process.

Date of Harvest/Sampling for Comparison

Enter date...

Actual Yield (kg/hectare or equivalent)

Enter a number...

Predicted Yield (kg/hectare or equivalent)

Enter a number...

Yield Error (%) - ((Actual - Predicted) / Actual * 100)

Enter a number...

Error Category (based on error %)

☐ Excellent

☐ Good

☐ Acceptable

☐ Poor

☐ Unacceptable

Notes on Discrepancies Between Predicted and Actual Yield

Write something...

Possible Factors Contributing to Error

- ☐ Weather Events
- ☐ Pest/Disease Pressure
- ☐ Soil Variability
- ☐ Nutrient Deficiency
- ☐ Water Stress
- ☐ Model Limitations
- ☐ Other (Specify in Long Text)

Specific Adjustments Needed to Model or Data Collection

Write something...

Upload images/data supporting validation (optional)

⬆ Upload File