

LUNA[®]
BY IUNU

**Precision Data for
Precision Growing**



LUNA Features

Out of The Box

These features are available to the customer immediately on installation.

Data Collection -

Imaging

Plant Images

High resolution closeup, per pass, overhead images of plants

Area Images

Wide angle periodic images of growing area & labor tracking

Environmental

Internal

Temperature, Humidity, Pressure, Light and CO2 (optional) readings from within growing area. Optional uploading of substrate data to surface to data panel (EC, PH, etc) linked through developers.iunu.com

External

Current and forecast weather

Analysis -

Inventory Tracking

Location and contents of inventory groups

Application -

MapView

Integrated overhead composite perspective of growing spaces and inventory groups

Time Travel

Reviewable visual history of growing spaces and inventory groups

Reporting and Charting

Configurable aggregate, comparison, and historical graphical views of collected and derived data

Task Management

Digital Flagging System for assigning tasks to teams or people, segmented by houses/bays or inventory groups. Georeferenced and visually displays on MapView as a colored flag.

Messaging

Team communication tool through the conversation feature in the flagging system.

Crop Management

Creation, editing, grouping, and searching of crop and inventory descriptions and details.

Crop Compare

Visual and data panel comparison of multiple inventory characteristics such as growth rate, environmental, etc.

Alerts and Alarms

Configurable thresholds and notifications for team communications, pest/pathogen alerting (v2 update to be released 1/2021)

User and Team Management

User and role account management

Learning Features



These features require data collection and baselines, becoming available to the customer for a given crop type after a certain number of crop turns.

Requires single turn of a crop -

Growth Rate Index (Leaf/Foliage, Flower, Fruit)

Measurement of area growth rate by space or inventory group (Derivative important data: change in growth rate) - (if height/graphical tracking required, reduce number of passes per day)

Counts per Square Meter (Flower & Fruit)

Measurement of counts by space or inventory (leading indicator and input to yield forecasting)

Crop Recipe

Record of each step and interaction with an inventory group

Space Utilization

Aggregate and graphical representation of non-plant areas within a space or inventory group

Germination Rate (Premium Feature)

Count of actual seed propagation

Requires multiple turns of a crop -

Growth Rate Anomaly Detection

Detection of deviation from expected growth rate

Readiness Analysis (Premium Feature)

Stage of development per inventory group

Harvest Forecast (Premium Feature)

Prediction of yield per inventory group

Discoloration Anomaly Detection

Detection of deviation from expected coloration (chlorosis, necrosis, spotting/mildew) - tip burn detector to be released 1/2021