Outcomes

BLOOOM measures success not only through social inclusion and skill development, but also through the tangible outcomes of production. The growth, yield, and quality of microgreens represent measurable proof of engagement, consistency, and learning across all program sites.

By tracking both agricultural and human metrics, BLOOOM demonstrates how inclusion can be productive, sustainable, and scalable.

1. Production Outcomes

Each program site must record and report data from every growing cycle. The objective is to measure **efficiency, consistency, and product quality**.

Germination Success: percentage of trays that sprout evenly and within the expected timeframe. Target: at least 90%. Source: instructor daily logs.

Yield per Tray: average grams of microgreens harvested per tray.

- Broccoli: 350–400 g
- Radish: 300–350 g
- Sunflower: 450 g

Source: weighing records.

Harvest Rate: number of trays harvested per 10-day cycle. Target: at least 90% of trays planted. Source: production checklist.

Cycle Frequency: number of growing cycles completed per month. Goal: 2–3 cycles per growing station. Source: cycle report sheet.

Loss/Waste Rate: percentage of trays lost to mold, dryness, or contamination. Target: 5% or less. Source: instructor incident logs.

Water-Use Efficiency: average liters of water used per full cycle. Goal: 2–3 L per tray. Source: maintenance log.

Lighting Consistency: average daily hours of light maintained. Goal: 12–16 hours. Source: automation record.

2. Product Quality Indicators

Each harvest is visually and physically assessed before packaging.

Criteria for quality approval:

- Uniform color (bright green, no yellowing)
- Stem height between 2–3 inches
- Clean cut above soil line
- No odor or excess humidity
- Stored at 4–6°C immediately after harvest

Any batch not meeting these standards is logged as “non-commercial grade” but may still be used for internal demonstrations or educational purposes.

3. Aggregated Output Metrics

Across all active institutions, BLOOOM reports:

- **Total trays planted per month**
- **Total trays harvested**
- **Total kilograms of microgreens produced**
- **Average yield per participant**
- **Total number of growing cycles completed**
- **Total hours of cultivation activity**

These numbers are consolidated quarterly to evaluate growth in productivity and program maturity.

4. Correlation with Educational Outcomes

While production data is quantitative, it directly reflects behavioral outcomes:

- **High yield** → consistent watering, responsibility, and teamwork
- **Low loss rate** → attention to hygiene, patience, and control
- **Regular cycles** → time management and process understanding

Every tray tells a story: performance in farming mirrors development in skill.

5. Data Collection & Reporting

- **Daily:** Instructors record watering, lighting, and germination observations.
- **Harvest Day:** Weights and photos of yield are documented.
- **Weekly:** Program Managers consolidate and review production outcomes.
- **Monthly:** Aggregated report submitted to BLOOOM HQ.
- **Quarterly:** Comparative analytics shared in internal meetings and external reports.

6. Continuous Improvement Loop

Data from production outcomes should be used to identify training needs, equipment issues, or environmental inconsistencies.

If yield drops below thresholds, instructors review:

- Soil humidity at stacking phase
- Lighting hours consistency
- Seed density per tray
- Air circulation efficiency

Each new cycle is an experiment in improvement. Consistent growth across both plants and people is the clearest sign the BLOOOM model works.