Beta Tester Logbook

SCIENTIFIC PROTOCOL · VERSION 2.0

This protocol records all critical environmental and system parameters in order to empirically evaluate the interaction between microbiome, substrate stability, and plant genetics under live operating conditions.

1 BASIC DATA & GENERAL INFORMATION

Tester name / ID _____ Cycle start date _____ Tent / room size _____

Lighting (model & wattage) _____

Water source

☐ Tap water ☐ Reverse osmosis ☐ Rainwater

Is pH regulated?

☐ Yes, target value: _____ ☐ No

Measured pH value (even if not regulated) _____

2 BED SPECIFICATIONS & GENETIC PROFILE

Bed configuration

☐ Individual pots ☐ Shared bed (fabric bed) ☐ Fixed raised bed

Total bed volume (litres) _____ Number of plants in bed _____ Buffer per plant (litres) – e.g. 120L/3 = 40L _____

Chosen strain – Name & breeder _____

☐ Clone ☐ Seed

Genetics

☐ Indica-dominant ☐ Sativa-dominant ☐ Hybrid

Nutrient demand

☐ Low ☐ Medium ☐ Heavy feeder

Stretch factor

☐ Low (<50%) ☐ Normal (50–100%) ☐ Extreme (>100% / strong sativa stretch)

3 INITIAL BIOLOGICAL STRATEGY (SETUP STATUS)

Base substrate – Manufacturer / Type _____

Soil mix prepared according to SLS recipe?

☐ Yes, exactly per recipe ☐ No, different mix: _____

Structure / drainage

☐ Perlite ☐ Pumice / lava rock ☐ Expanded clay chunks

Mulch strategy

☐ No mulch ☐ Organic mulch (straw, hemp chips, etc.) ☐ Living mulch (cover crops)

Integrated beneficials

☐ None ☐ Predatory mites (Hypoaspis miles) ☐ Nematodes (SF) ☐ Springtails / other

SLS product use

☐ Cover Crop Mix 2.0 ☐ SLS Soil Recharger ☐ SLS Wool Pellets ☐ SLS Soil Vitalizer

4 WEEKLY ENVIRONMENTAL & SYSTEM PARAMETER PROTOCOL

Please complete this table once a week. Especially critical: flowering weeks 3–6, peak nutrient uptake and strongest microbial activity.

MEASUREMENT WEEK: VEG W1

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: VEG W2

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: VEG W3

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: VEG W4

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W1

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W2

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W3 critical – peak nutrient uptake

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W4 critical – peak nutrient uptake

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W5 critical – peak nutrient uptake

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W6 critical – peak nutrient uptake

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W7

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W8

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W9

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W10

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W11

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

MEASUREMENT WEEK: FLOWER W12

Air temp. day	Air temp. night	Humidity (RH)	Substrate temp.	Substrate pH value
°C	°C	%	root zone	pH

Substrate temperature & pH are critical for microbiome stability – please measure carefully.

Soil moisture
- ☐ Optimal / consistently moist
- ☐ Too dry (hydrophobic risk)
- ☐ Too wet / waterlogged

Substrate odor
- ☐ Pleasant, earthy / mushroomy
- ☐ Odorless / neutral
- ☐ Sour / rotten (low oxygen)

Mulch & companion flora
- ☐ Cover crops vital & active
- ☐ Cover crops cut & mulched
- ☐ Mulch layer dry / patchy

Plant vitality
- ☐ Perfect, rich green
- ☐ Light green / slight deficiency
- ☐ Dark green + clawing
- ☐ Necrosis / spots

SLS additives / fertilization – applied this week

☐ Plain water only ☐ SLS Soil Recharger

Amount / dosage if applied

---

5 FINAL EVALUATION & HARVEST FEEDBACK (after project completion)

This final feedback provides the decisive insights into the long-term stability of the True Living Soil system and the expression of secondary plant compounds (terpenes / flavonoids).

Quality & terpene profile

☐ Outstanding (better than on hydro/mineral fertilizer) ☐ Excellent / true to strain type ☐ Average

☐ Disappointing / barely any smell

Yield (biomass)

☐ Exceeded expectations ☐ Fully satisfactory ☐ Slightly below average ☐ Too low

No-till reuse – does the bed stay exactly as is for the next direct cycle?

☐ Yes, absolutely (true no-till / TLS permanent cycle)

☐ No, because: _____

Soil structure at the end

☐ Perfectly fluffy, well-rooted, actively alive ☐ Slightly compacted / insufficient drainage

☐ Completely blocked / hardened soil

CRITICISM & OPTIMIZATION POTENTIAL What was the most complicated part of handling the SLS products? What information was missing?

_____

_____

_____

_____

_____