

# A4 – Checklist: Hydroponic System Hygiene & Root Inspection

Facility/Crop: \_\_ System: DWC / NFT / E&F / Other: \_\_\_\_

Date: \_\_/\_\_/\_\_ Shift: ☐ morning ☐ afternoon Operator: \_\_\_\_

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## Targets (enter your setpoints)

- pH: \_\_
  - EC: \_\_
  - Solution temp (°C): \_\_
  - DO - O<sub>2</sub> (mg/L): ≥ \_\_
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## 1) Daily check (🔄 each visit)

- ☐ Reservoir/lines: no leaks, no unusual foam/odour
- ☐ Water/air pumps: sound/pressure normal
- ☐ pH: reading \_ | *correction* ☐
- ☐ EC: *reading* \_ | *correction* ☐
- ☐ Solution temperature: \_ °C | *cooling/heating* ☐
- ☐ DO (if measured): \_ mg/L | *increase aeration* ☐
- ☐ Room climate (RH/air movement): \_\_ / status ☐ OK ☐ needs attention

## 2) Every 2–3 days

- ☐ Root inspection (random 3–5 plants)
- ☐ Clean strainers/prefilters
- ☐ Update nutrient/irrigation log

## 3) Weekly

- ☐ Flush lines via bypass (clean water)
- ☐ Clean benches/carts/tools
- ☐ Calibrate pH/EC (if not on monthly schedule)

## 4) Between batches / during solution change — short SOP

- 1) Drain reservoir → secure disposal
- 2) Mechanical cleaning (biofilm/sediment)
- 3) Wash with detergent **per label** → rinse
- 4) Disinfect (approved product **per label**) → **contact time:** \_\_\_\_ min

- 5) Final rinse (if required) → dry  
6) Leak test + 15–30 min circulation with clean water

## 5) Mini root-inspection card (tick)

Date: \_/\_/\_ Table/section: \_\_\_\_

Parameter	Plant 1	Plant 2	Plant 3	Notes
Colour (white/cream vs. beige/brown)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
Smell (neutral vs. musty)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
Texture (firm hairs vs. slime)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
Biofilm/algae in system	<input type="checkbox"/> none <input type="checkbox"/> low <input type="checkbox"/> high			

**Scale:** A – healthy | B – caution | C – action

**Corrective actions (tick):** ☐ replace solution ☐ increase aeration ☐ flush lines ☐ clean reservoir ☐ improve flow ☐ other: \_\_\_\_\_

## 6) Parameters – quick log (A4: one line per day)

pH: \_ EC: \_ Temp.: \_ °C DO: \_ mg/L Notes/correction: \_\_\_\_\_

## 7) Incident – quick procedure (fill & tick)

- ☐ Identification: plant/section \_\_\_\_\_  
☐ Isolation: removed/disconnected ☐  
☐ Solution replaced + lines flushed ☐  
☐ Disinfection (product/concentration/time): \_\_\_\_  
☐ Parameter correction (temp./DO/flow): \_\_\_\_  
☐ **Note after 24–72 h:** \_\_\_\_\_

### Signatures

**Operator:** \_\_ **Date:** \_/\_/

**Supervisor verification:** \_\_ **Date:** \_/\_/

Note: always use cleaning/disinfection products strictly as per the label and safety guidance. Adjust setpoints to the species and growth stage.