

DAY 28 · 30-DAY SUMMER CHALLENGE · THETRENDVAULTBLOG.COM

Integrated Prevention System — Put It All Together

5 pillars · 8-step flush · leachate EC guide · city TDS reference · 28 Sunday checks

⚡ QUICK ANSWER — INTEGRATED PREVENTION SYSTEM

The integrated system combines 5 simultaneous actions: weekly water TDS test, monthly leachate EC test per container, 8-step flush when EC exceeds 2.0 mS/cm, fortnightly alternating neem/seaweed spray, and the 28-check Sunday routine. Applied from April 1, these prevent 94% of Indian summer container problems before symptoms appear. Weekly time: 12 minutes.

THE PROBLEM CASCADE — ONE CHAIN, NOT 7 SEPARATE PROBLEMS



Fix one link in isolation — chain restarts. Prevent all simultaneously — cycle ends.

THE 5 PILLARS OF INTEGRATED PREVENTION

<p>Water Quality Weekly TDS test. Monthly leachate EC test. Target: under 500 ppm TDS · under 2.0 EC</p>	<p>Soil Structure Monthly 500ml drainage test. Perlite amendment. Target: under 25 sec drainage</p>	<p>pH Stability Monthly pH probe. ACV correction. Target: 6.0–6.8 pH</p>	<p>Biological Health Trichoderma after flush. Alternating spray. Monthly restoration</p>	<p>Visual Surveillance 28-check Sunday routine. 12 min · every Sunday</p>

LEACHATE EC REFERENCE — TRIGGER POINTS FOR ACTION

<p>Under 1.2 mS/cm ✓ HEALTHY No action needed. Maintain normal routine.</p>	<p>1.2–2.0 mS/cm MONITOR Light flush: 2x container volume plain water.</p>	<p>2.0–3.0 mS/cm ● FLUSH Full integrated flush protocol this week.</p>	<p>3.0–4.5 mS/cm 🚨 CRITICAL Emergency flush + 2-week fertiliser pause.</p>	<p>Above 4.5 mS/cm ⚠️ SEVERE Full protocol + consider soil refresh.</p>
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CITY-WISE WATER TDS REFERENCE + FLUSH FREQUENCY

City	Avg Summer TDS (ppm)	Monthly Salt Input per 12-inch pot	Flush Frequency
Delhi	650–900 ppm	1,800–3,000 mg	Every 2 weeks
Chennai	480–700 ppm	1,200–2,200 mg	Every 3 weeks
Hyderabad	500–750 ppm	1,400–2,400 mg	Every 2–3 weeks
Mumbai	280–400 ppm	500–1,000 mg	Every 4–6 weeks
Bangalore	200–380 ppm	700–1,200 mg	Every 4 weeks
Madanapalle	580–680 ppm	1,700–2,800 mg	Every 2 weeks

Original reader data from 47 contributors. Monthly salt input at 1.5L/day standard. Always use leachate EC as primary trigger – not calendar alone.

DAY 28 · PAGE 2 OF 3 · THETRENDVAULTBLOG.COM

8-Step Flush Protocol + Spray Schedule

Integrated flush · alternating neem/seaweed · 6 critical mistakes with exact fixes

THE 8-STEP INTEGRATED FLUSH PROTOCOL — ₹15–35 PER CONTAINER

1 Pre-Flush Drainage Test

Pour 500ml. Time first drip to cessation. Record as baseline. Retest at Step 8 to confirm improvement.

2 First Water Pass — Salt Dissolution

4× container volume of low-TDS water. Slow — 1 litre/minute. Rose-head can from 20cm. Complete drainage between each litre.

3 Humic Acid Application

2ml humic acid per litre. Apply 1–2L to container surface. Wait 10 minutes. Chelates residual mineral ions.

4 pH Verification + Correction

pH probe to 5cm. Target 6.0–6.8. Above 7.2: add 5ml ACV per litre, apply 1L. Retest after 20 min.

5 ★ Trichoderma Reinoculation

The step 95% of gardeners skip. 5g Trichoderma per 1L water. Apply 200–300ml per 12-inch container. Prevents Pythium recolonisation.

6 Vermicompost Top-Dress

Remove top 2cm soil. Replace with 2cm fresh vermicompost. Replenishes flushed biology + adds 6–8 week nutrition.

7 Seaweed Recovery Drench

2ml seaweed extract per litre. Apply 500ml per 12-inch container. Betaines + cytokinins restore osmotic stress within 48–72 hrs.

8 Post-Flush Drainage Retest

Repeat 500ml test. Improvement of 20–40% from Step 1 = success. If unchanged: bamboo skewer 8–10 holes to 15cm depth.

ALTERNATING SPRAY SCHEDULE — EVERY 14 DAYS, TWO STAGES

Stage A — Neem Oil (Weeks 1, 3, 5...)

Recipe: 5ml cold-pressed neem oil + 2ml castile soap → emulsify in bowl → add to 1L water → shake 30 sec

Stage B — Seaweed Extract (Weeks 2, 4, 6...)

Recipe: 2ml seaweed extract per 1L water (increase to 3ml for stressed plants)

Apply after 5 PM only. Spray leaf undersides first → soil surface → stem base.

NEVER apply when: temp above 38°C · plants wilting · fruit within 7 days of harvest

Cost: ₹8–15 per 10 containers

Apply 6–8 AM. Spray upper + lower leaf surfaces until glistening. Immediately water root zone with same dilution (300ml per 12-inch).

Safe at all temperatures — use during heat waves when neem is contraindicated

Cost: ₹6–12 per 10 containers

6 CRITICAL MISTAKES — WITH EXACT FIX FOR EACH

Mistake 1: Flushing with high-TDS tap water. TDS 620 ppm water adds new minerals faster than it removes old ones. *Fix: Blend with RO/rainwater to under 300 ppm before any flush.*

Mistake 2: Fertilising immediately after flush. Root membranes need 48-hour recalibration post-flush. *Fix: Wait 48 hours, then start at half-dose for first application only.*

Mistake 3: More water when plants show heat wilt. Heat wilt with moist soil = osmotic stress from salt, not drought. *Fix: Test leachate EC first. If above 2.0 mS/cm — flush, don't add water.*

Mistake 4: Neem oil during heat waves above 38°C. Phytotoxicity — oil burns heat-stressed leaves. *Fix: Switch to seaweed spray only. Resume neem when temp drops below 36°C.*

Mistake 5: Treating all containers identically. Black plastic pots accumulate salt 40–60% faster. *Fix: Test individually, flush high-risk containers 1–2 weeks earlier than standard.*

Mistake 6: Skipping Trichoderma after flush. Flush removes beneficial fungi — Pythium recolonises cleared soil. *Fix: Always apply 5g Trichoderma per litre (200ml/container) after every flush. Always.*

↓ Full 8-Step Protocol + City TDS Reference + All 28 Sunday Checks

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DAY 28 · PAGE 3 OF 3 · THETRENDVAULTBLOG.COM

28-Check Sunday Routine + Seasonal Calendar + Quick Diagnosis

Complete cumulative checklist · April–October actions · master diagnosis table

SEASONAL PREVENTION CALENDAR — APRIL THROUGH OCTOBER

Month	Primary Action	Test / Check	Threshold That Triggers Action
April W1	Baseline measurements all containers	TDS + EC + drain + pH	EC above 2.0 or drain above 25 sec = begin protocol
April W2	Stage B — Seaweed foliar feed	Leaf colour check	Interveinal yellowing → test pH before fertilising
April W3	Drainage test all containers	500ml timing	Any above 25 sec → perlite amendment immediately
April W4	Stage A — Neem oil spray	Leaf underside	Any colonies → increase neem to weekly on affected pots
May W1	Leachate EC test all containers	EC reading	Above 2.0 mS/cm → full integrated flush protocol
May W2–4	Continue alternating spray + flush triggered pots	Post-flush EC recheck	Still above 1.5 after flush → partial soil refresh
June W1	Full flush — all containers EC above 1.8	Trichoderma log	Last applied over 8 weeks → reapply today
June W4	Monsoon prep — elevate all containers	Drainage holes	Any blocked holes → clear or drill additional before July 1
July W1	Remove ALL saucers. Monsoon protocol begins.	All drain under 25 sec?	Any above 20 sec during monsoon → immediate intervention
Aug–Oct	Continue all pillars. Post-monsoon biological restoration.	Continue all tests	October: full soil refresh cycle + Trichoderma reinoculation across all containers

28-CHECK SUNDAY ROUTINE — COMPLETE CUMULATIVE LIST (UNDER 12 MINUTES)

- Drainage test: 500ml pour, time to finish (Day 1)
- Leaf underside: white dots, colonies, webbing? (Day 2)
- Container lift test: abnormally light? (Day 4)
- Stem base: soft, discoloured, white at soil line? (Day 5)
- pH on any container with yellowing or slow growth (Day 6)
- Flower drop on fruiting crops: over 30% in one week? (Day 7)
- Interveinal chlorosis: veins green, leaf yellow? (Day 9)
- Soil moisture at 4cm: not just surface appearance (Day 11)
- Fungus gnat adults: dark flies near soil surface? (Day 13)
- Vertical supports: stakes firm, plants tied? (Day 15)
- Neem cake: last applied over 8 weeks? Apply 50g/container. (Day 17)
- Harvest readiness: overripe fruit present? Remove. (Day 19)
- Surface mulch depth: under 1cm? Replenish cocopeat. (Day 21)
- Trichoderma log: last applied? Over 8 weeks → reapply. (Day 23)
- ★ ★ Seasonal calendar: which next-4-week actions are due? (Day 28 NEW)
- Soil surface: white crust, algae, standing water? (Day 1)
- Water TDS at irrigation source — record reading (Day 3)
- New growth colour: pale or yellow? Test pH if yes (Day 4)
- Root peek on struggling plant: colour + firmness (Day 5)
- Drainage hole: clear? Roots blocking? (Day 6)
- Pot surface temp at 2 PM: black pots above 48°C? (Day 8)
- Spider mite web: under leaves and at stem junctions (Day 10)
- Saucer check: standing water over 30 min? Remove in monsoon. (Day 12)
- Windbreak integrity: shade cloth secure, no tears? (Day 14)
- Leachate EC on highest-risk containers (Day 16)
- Spray log: neem week or seaweed week? Apply today. (Day 18)
- New plant quarantine: checked for pests before placing? (Day 20)
- pH correction log: last test date on each container? (Day 22)
- ★ ★ Vermicompost top-dress: over 6 weeks since last? Apply today. (Day 28 NEW)

QUICK DIAGNOSIS REFERENCE — WHAT YOU SEE + FIRST ACTION

What You See / Measure	Most Likely Cause	Confirm With	First Action
EC above 2.5 mS/cm leachate	Salt accumulation	White crust on soil?	Integrated flush today
Drainage above 40 sec	Pore collapse / compaction	Soil dense when probed?	Perlite top-dress + bamboo aeration
pH above 7.3	Alkaline drift from tap water	Interveinal chlorosis new leaves?	5ml ACV per litre, 1 application

Afternoon wilt, evening recovery	Heat stress / osmotic stress	EC above 2.0? Temp above 40°C?	EC flush OR shade — not extra water
Sticky upper leaf + colonies underside	Whitefly / aphid infestation	White cloud when plant shaken?	Neem oil spray immediate
White fluffy growth, disappears 3 days	Beneficial mycelium — GOOD	No smell, no plant stress?	Nothing — do not spray
Brown mushy roots, rotting smell	Pythium root rot	Root inspection — colour + smell	H ₂ O ₂ drench + full drain fix
EC under 0.5 mS/cm after rain	Nutrients flushed by monsoon	Pale growth, slow progress?	Resume fertilisation — reduce watering

📄 Complete Day 28 Guide + All 5 Pillars + Products with ₹ Prices

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