

One sheet is one 14-day reservoir cycle. Fill in the top once, log a line a day, and print a fresh copy of this page every time you change the water. Page 2 holds the checks and numbers, so print that once and pin it beside this one.

This reservoir

CROP		SYSTEM	☐ Kratky ☐ DWC ☐ Smart garden
FILLED ON		VOLUME	
TARGET pH		TARGET EC	
LIGHT HEIGHT		LIGHT HOURS	

Take the target pH and EC from your crop's own row in Appendix A, or from the free pH and nutrient calculator on the site, not from a general rule. Crops differ more than you would think: lettuce wants EC 1.0 to 1.4, mint 2.0 to 2.4.

Topping off

KRATKY JAR Start with the cup in the solution and let the level fall; the gap is how roots breathe. No daily top-off. If a long crop runs low, add a little nutrient solution, 1 inch at most.	DWC BUCKET Top off daily to the level you set, an inch (2.5 cm) below the net pot, and check the pump is bubbling. The air pump runs 24 hours a day.	PUMPED SYSTEMS Top off with plain, pH-adjusted water only. Never add nutrient concentrate between changes; that is how salts build up.
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The 14-day log

DAY	DATE	LEVEL OK / TOPPED OFF	PUMP OK	pH	EC	WATER °F / °C	NOTES
1		☐	☐				
2		☐	☐				
3		☐	☐				
4		☐	☐				
5		☐	☐				
6		☐	☐				
7 CHECK		☐	☐				
8		☐	☐				
9		☐	☐				
10		☐	☐				
11		☐	☐				
12		☐	☐				
13		☐	☐				
14 CHANGE		☐	☐				

Day 7: weekly check on page 2. **Day 14:** weekly check plus the full water change. Test pH and EC at least twice a week; every two to three days in a jar, which drifts faster than a bucket. Water belongs at 65 to 75°F (18 to 24°C).

Next cycle, I will change

Weekly check

Five minutes, twice a cycle: tick D7 on day seven and D14 on day fourteen. It catches nearly every problem in Chapter 16 before it turns into visible damage.

D7	D14		
☐	☐	Roots	Pale white or slightly tan is healthy. Brown, slimy, or a sour or earthy smell means root rot. Smell tells you before colour does.
☐	☐	Leaf undersides	Turn a leaf over. Aphids and spider mites live underneath, where a top-down glance misses them.
☐	☐	Yellowing	Lower, older leaves: the reservoir is spent, so a full change is due. New growth at the top: check pH, not feeding.
☐	☐	Light damage	Leggy or stretched: too far away or too few hours. Bleached or crispy edges: too close.
☐	☐	pH and EC	Both tested, and pH read first in any diagnosis.
☐	☐	Light height	Measured to the top of the canopy, not the jar, and lowered as the plant grew.
☐	☐	Light blocking and kit	No gaps in the wrap. Pump, airline and air stone working, if you run DWC.

Day 14: the full water change

Every 2 weeks in a pumped system, no exceptions. Clear water and balanced water are not the same thing. Fifteen minutes in this order, forty in any other.

1	Mix the new solution first, set to your target pH and EC, before you touch the plant.	2	Lift the net cup out and rest it so the roots hang free instead of folding under.
3	Empty and rinse the container, and look at the roots. It is the best view all fortnight.	4	Clean with diluted hydrogen peroxide, never bleach. Wipe any white salt crust off the medium.
5	Check the light-blocking wrap for gaps before you refill.	6	Refill to the right level, never the brim in a Kratky jar, and start a fresh page 1.

If something looks wrong

YOU SEE	CHECK FIRST
Yellow leaves	pH first, EC second. Out-of-range pH locks out nutrients that are already in the water.
Brown, slimy roots	Water above 75°F (24°C), or above 72°F with no air stone, or a stopped pump. Cool it and clean the system.
Leggy, stretched stems	Light too far away or on too few hours. Move the light closer before you touch the timer.
Tip burn	Outer leaves: EC too high, or low calcium. Inner leaves: growing too fast, so lower EC and add a fan.

The full table, with nineteen symptoms, is in Chapter 16.

Quick reference

pH 5.5 to 6.5 Covers 29 of the 39 crops. Ten reach higher, watercress most of all (6.5 to 7.0).	SEEDLING EC 1.0 The floor for 31 crops. Eight start lower, microgreens most of all. Both lists are in Chapter 3.	WATER TEMPERATURE 65 to 75°F 18 to 24°C. Aerate above 72°F. Never cool with ice in the water.
LIGHT HOURS 14 on, 10 off Spinach runs 12. Strawberries, shiso, stevia and three more run 16.	LIGHT HEIGHT 6 to 8 in Leafy crops (15 to 20 cm). Woody herbs 4 to 6 in, seedlings 10 to 12 in, fruiting 8 to 12 in.	AFTER A HARVEST EC 1.2 to 1.5 For 4 to 7 days, then back to normal. Never take more than a third.

Pumped systems: top off daily with plain water and change the whole reservoir every 2 weeks. Kratky jars: sized to last the crop.