Indoor Living Soil Guide

Support & Practical Guide

A technical guide to diagnosing and fixing indoor nutrient problems in no-till systems.

Part 1: The Common-Mistakes Guide

A living no-till system in a grow tent is an isolated ecosystem. If plants show nutrient deficiencies (yellowing leaves from the bottom up) despite Soil Recharger and Wool Pellets, in 95 % of cases the cause is not a lack of nutrients in the pot, but an uptake blockage. Check these three critical indoor factors right away:

Mistake 1: The LED Cold Trap (Metabolism Grinds to a Halt)

The problem: Modern LEDs deliver excellent light but give off very little radiant heat. If your tent's air temperature sits at a "classic" 21 °C to 23 °C, the root zone in the pot is too cold. Microbiology goes dormant, and the plant stops transpiring. Without water flow inside the plant, no organic nutrients reach the top.

The fix: Raise the temperature during the light period to 26 °C–28 °C. Only at this warmth does Living Soil's metabolism kick in.

Mistake 2: "Dry Pockets" from Incorrect Watering (The Dry Zone)

The problem: Once organic soil in a tent dries out too much, it becomes hydrophobic (water-repellent). Water then runs invisibly down along the pot walls. The core of the pot stays bone dry. Roots and microbes in that zone die off, and your topdress fertiliser on top has no effect.

The fix: Use the weight test. If the pot feels feather-light, place it in a tub of lukewarm water (a soak bath) for 30 minutes until the soil core has fully soaked up water from the bottom up. After that, keep it consistently moist (like a wrung-out sponge) – never let it dry out completely!

Mistake 3: The Mini-Pot Dilemma

The problem: A stable no-till network needs room. In small 11-litre plastic pots, moisture swings far too extremely indoors.

The fix: For indoor growing, use Living Soil fabric pots of at least 30 litres or large Living Soil beds. More soil volume means more buffer, more microbiology, and a more stable system against watering mistakes.

Part 2: Preventing Topdress from Drying Out Under LED

The most important rule in the grow tent: protect your topdress!

Our Soil Recharger is applied as a highly effective topdress on top of the soil. For the microbiology and organic components to release nutrients for the roots, they need constant moisture. Under the intense light of strong indoor LEDs, the top layer of soil can dry out completely within a few hours. The biological life in your topdress is literally "grilled", and the nutrient chain breaks.

How to activate and protect your topdress indoors, step by step:

1. Mix it in moist

Sprinkle Soil Recharger onto the surface and gently work it into the top 1–2 centimetres of soil.

2. The activation mist

Right after applying, spray the surface thoroughly with a spray bottle (lukewarm, dechlorinated water) until the topdress is evenly moist but not waterlogged.

3. The mulch layer (your shield)

Immediately cover the moist topdress with a 2–3 cm layer. Use our Cover Crop Mix (as a living mulch) or clean straw/miscanthus chaff.

The effect: The mulch breaks the harsh LED light. Moisture stays trapped right beneath the layer, just like on a forest floor. Your beneficial microbes can work around the clock in that moist microclimate, continuously transporting nutrients down into the root zone.

Part 3: The Final Boss Scenario – Deficiencies Despite Perfect Conditions

If temperatures, pot size, VPD values and watering behaviour are demonstrably perfect and the plant still shows acute deficiency symptoms (e.g. necrosis, brown spots or pale leaf veins), a complex, invisible blockage is present in the isolated indoor system. This is where classic solid fertilising reaches its temporary limits.

The 3 hidden underlying causes

1. The genetic "outlier" (phenotype hunger)

Modern, highly bred hybrids (e.g. extreme US genetics) grow cells so rapidly during heavy flowering that the purely microbial release of phosphorus and potassium (PK) is simply too slow at times. The plant consumes more than the soil can process in real time.

2. Microbial imbalance (the wrong dominance)

If the ratio of beneficial bacteria to fungi in the pot tips out of balance (e.g. due to temporary oxygen deficiency in the substrate), the specialists that make elements like calcium or magnesium plant-available are missing.

3. Ion competition (the overload effect)

If individual raw materials were overused beforehand (e.g. too much lime or pure potassium), these ions block the uptake of other nutrients. Too much potassium blocks magnesium; too much calcium blocks boron and zinc.

The biological emergency protocol: "first aid" without chemicals

Important: During acute deficiencies, no mineral fertiliser should go into the tent. The salts it contains would immediately damage the carefully built microbial network and throw the system out of balance long-term. Use these purely biological catalysts instead:

Step 1: Rescue via the leaf (foliar feeding)

Since root uptake is temporarily blocked or simply too slow, it is bypassed entirely. The plant can absorb nutrients through the leaf stomata within hours. Spray the plants shortly after the lights turn off (or under dimmed light) with a heavily diluted solution of organic liquid kelp extract (seaweed) or amino acids – this delivers immediately available micronutrients straight into the cells without loading the substrate.

Step 2: The "biology turbo" (aerated compost tea / ACT)

If the nutrients are present in the soil but blocked, the soil needs fresh workers. Brew an active, 24-hour aerated compost tea, refined with a pinch of humic acid and molasses. The microorganisms that multiply explosively in it break down blocked nutrients in the soil and make them plant-available again.

Step 3: Targeted individual organic doses (the gentle correction)

If the deficiency can be identified specifically, counter it with purely organic, liquid inputs:

Acute nitrogen deficiency: Gently water in with liquid fish hydrolysate.
Acute calcium/magnesium deficiency: Organic liquid CalMag based on amino or acetic acid (do not use mineral nitrates).