



**Figure S1.** Morphological dynamics of a single tea plant under nitrogen deficiency (ND) stress over a 30-day period. This series presents longitudinal observations of the same individual plant at four key time points: day 0 (pre-treatment), day 7, day 15, and day 30 of ND exposure. Developing new shoots are highlighted with pink boxes to emphasize growth progression. A technical note: The reddish tint observed in Panel A originates from artificial growth lighting incidentally captured during initial photography. To eliminate such artifacts, we adjusted the photography setup for subsequent sessions (Panels B-D), resulting in the natural coloration evident in these latter panels.