

Fig. S1. Biomass of two tobacco cultivars responding to different kinds of NH<sub>4</sub><sup>+</sup>/NO<sub>3</sub><sup>-</sup> ratio. Seedlings were subjected to different kinds (0/100, 25/75, 50/50, 75/25, 97/3) NH<sub>4</sub><sup>+</sup>/NO<sub>3</sub><sup>-</sup> ratio for 9 days. Values are means of 6 replications ± SE and bars with different letters indicate significant differences at P < 0.05 among three kinds of treatments for each cultivar, as determined by ANOVA followed by the LSD test.

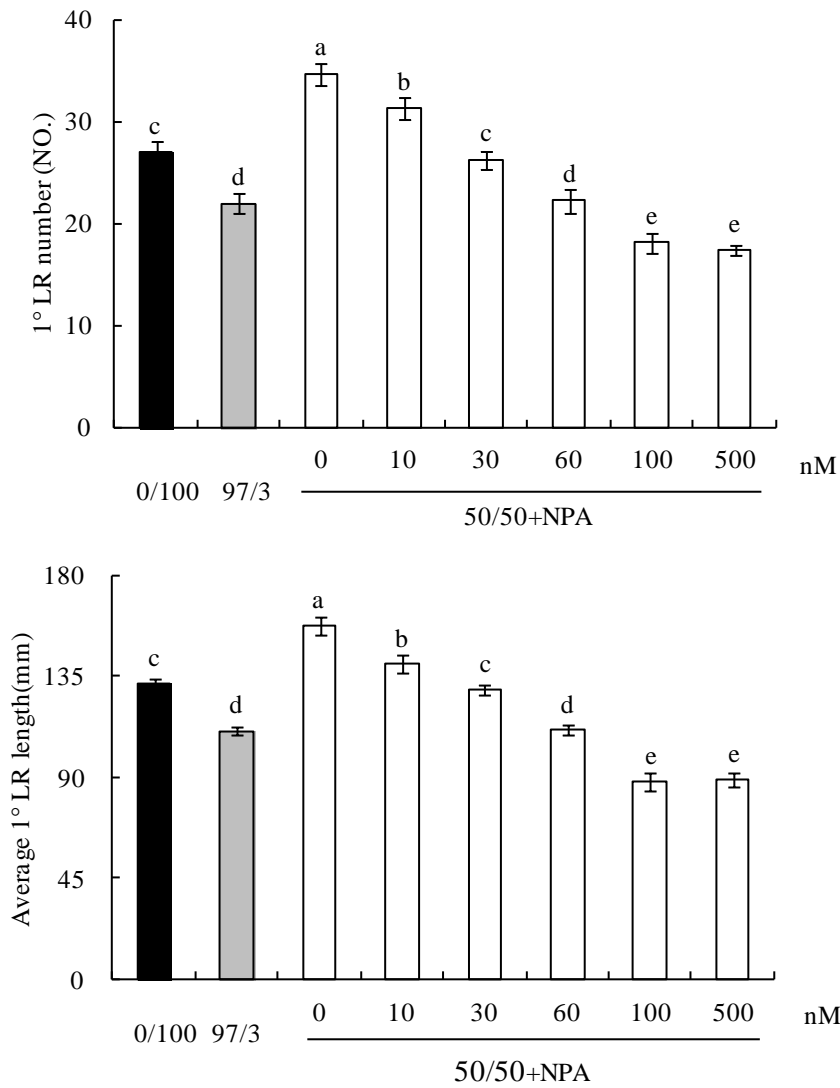


Fig. S2. Effects of NPA on primary lateral root (1° LR) number and density of NC89 tobacco seedlings subjected to low (0/100, 0 mM  $\text{NH}_4^+$  and 3.75 mM  $\text{NO}_3^-$ ), high (97/3, 3.64mM  $\text{NH}_4^+$  and 0.11mM  $\text{NO}_3^-$ )  $\text{NH}_4^+/\text{NO}_3^-$  ratio or provided with optimum  $\text{NH}_4^+/\text{NO}_3^-$  ratio (50/50, 1.875 mM  $\text{NH}_4^+$  and 1.875 mM  $\text{NO}_3^-$ ) for 9 days. Values are means of 6 replications  $\pm$ SE and bars with different letters indicate significant differences at  $P < 0.05$  among three kinds of treatments, as determined by ANOVA followed by the LSD test.

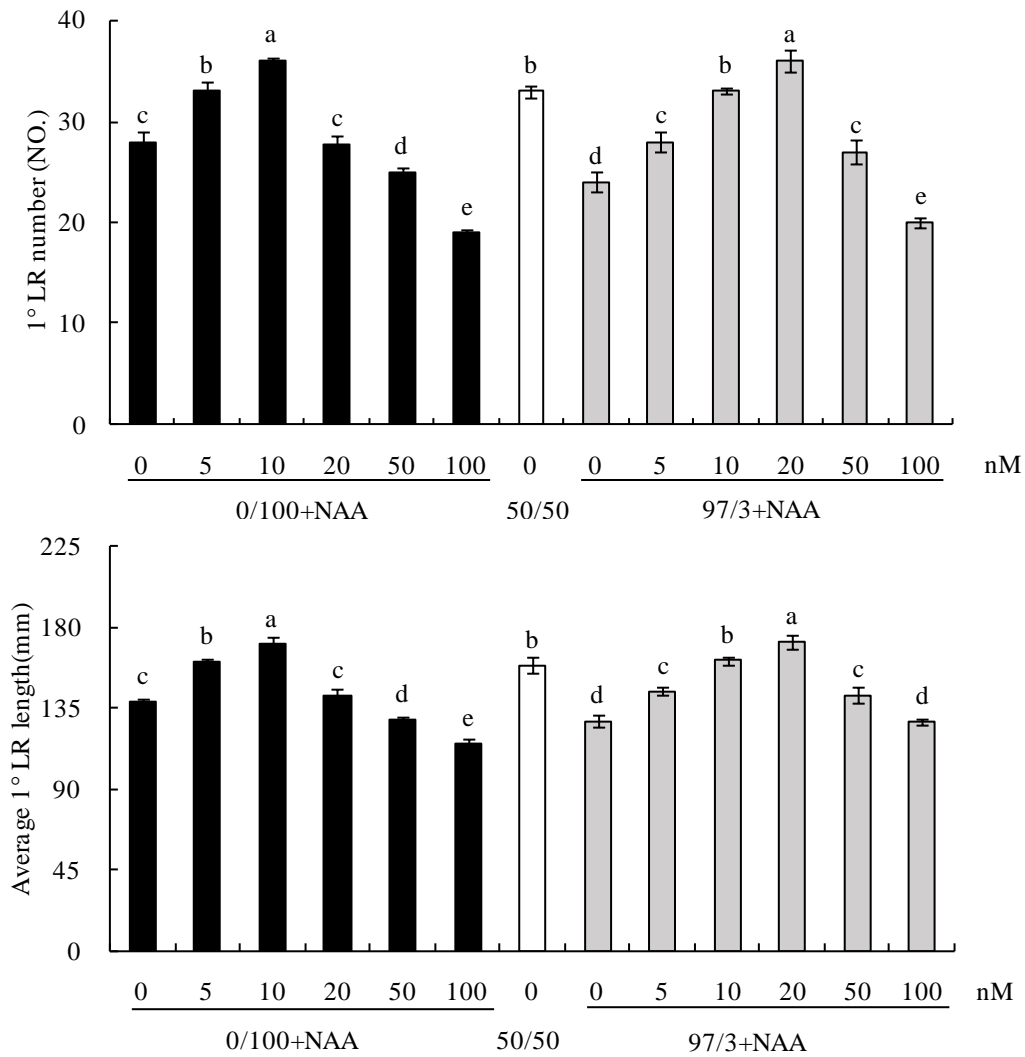


Fig. S3. Effects of NAA on primary lateral root (1° LR) number and density of NC89 tobacco seedlings subjected to low (0/100, 0 mM NH<sub>4</sub><sup>+</sup> and 3.75 mM NO<sub>3</sub><sup>-</sup>), high (97/3, 3.64mM NH<sub>4</sub><sup>+</sup> and 0.11mM NO<sub>3</sub><sup>-</sup>) NH<sub>4</sub><sup>+</sup>/NO<sub>3</sub><sup>-</sup>ratio or provided with optimum NH<sub>4</sub><sup>+</sup>/NO<sub>3</sub><sup>-</sup>ratio (50/50, 1.875 mM NH<sub>4</sub><sup>+</sup> and 1.875 mM NO<sub>3</sub><sup>-</sup>) for 9 days. Values are means of 6 replications ±SE and bars with different letters indicate significant differences at P<0.05 among three kinds of treatments, as determined by ANOVA followed by the LSD test.