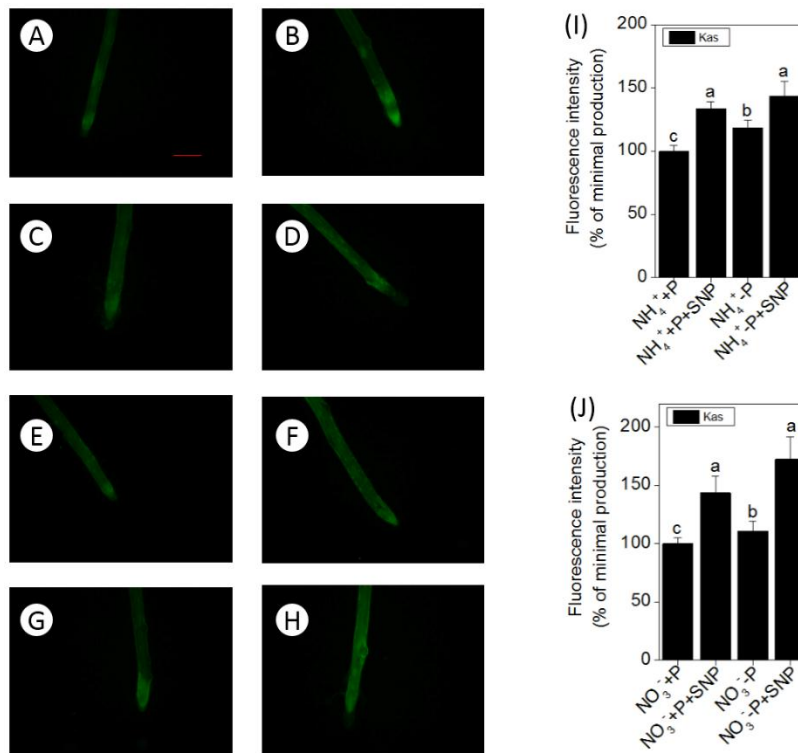
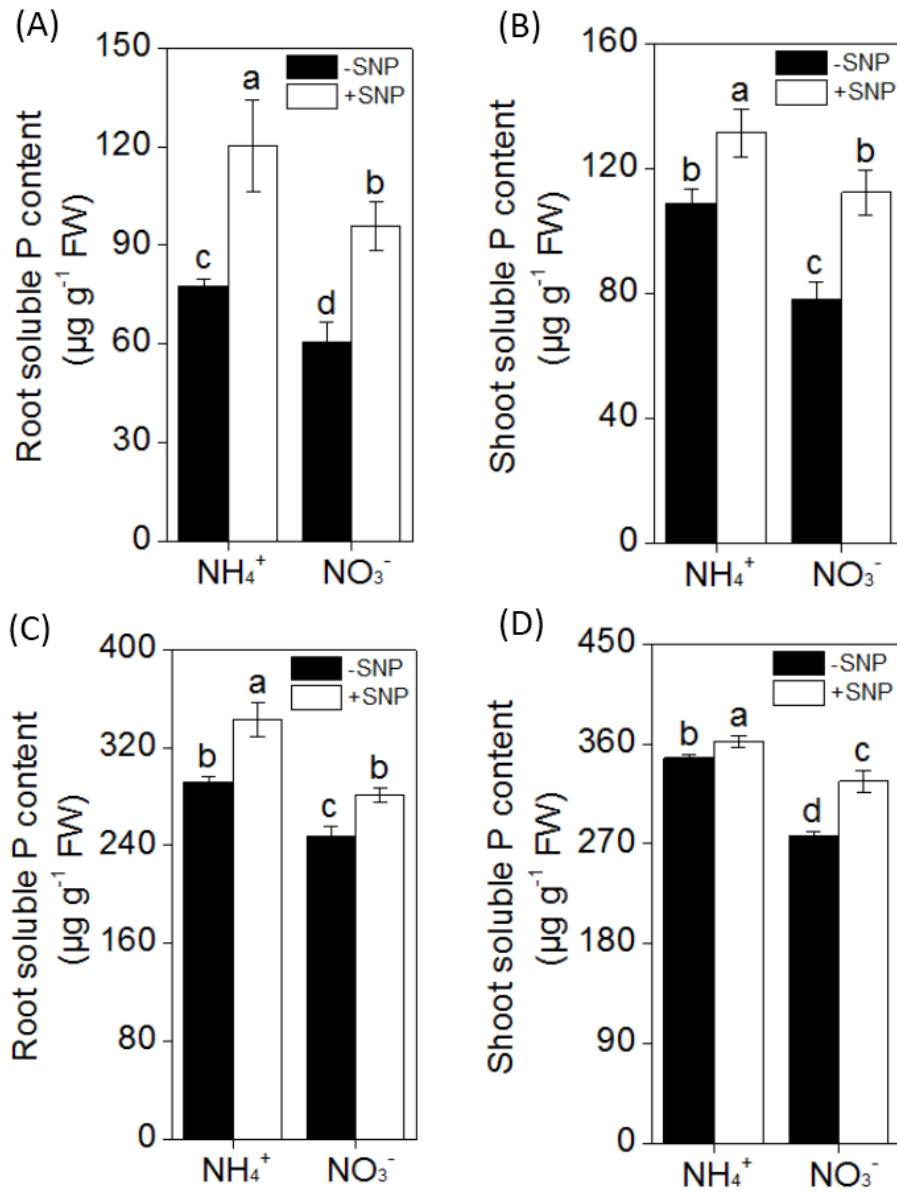


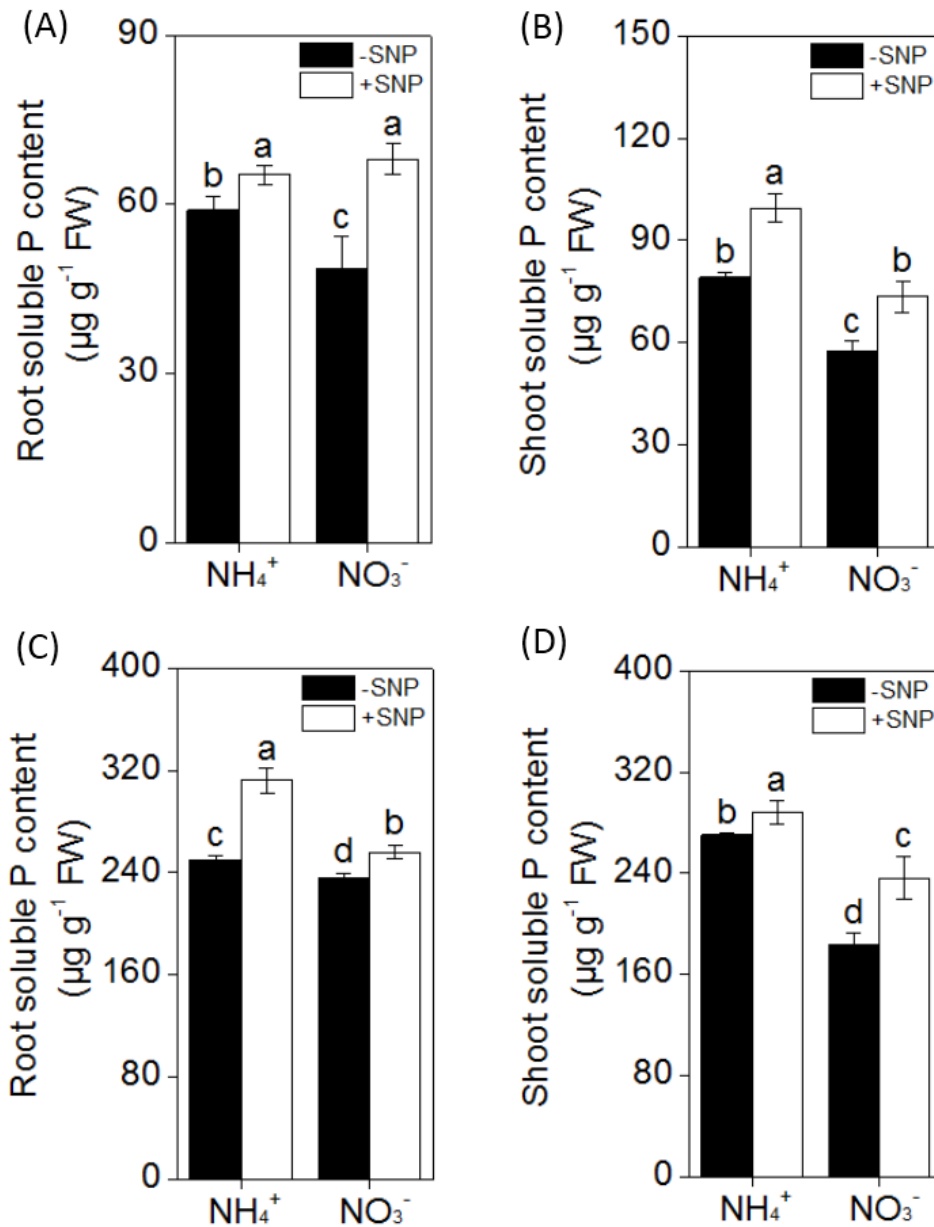
**Supplement Figure 1** Effect of exogenous NO addition on NO accumulation in ‘Nip’ root. Seedlings were treated with (B, D, F and H) or without (A, C, E and G) 2.5  $\mu$ M SNP for 24 h under four respective treatments (+P+NH<sub>4</sub><sup>+</sup>, -P+NH<sub>4</sub><sup>+</sup>, +P+NO<sub>3</sub><sup>-</sup> and -P+NO<sub>3</sub><sup>-</sup>), then the root tip were collected. (A), (B), (E), and (F) representative the green fluorescence of Nip roots in the P-sufficient solution, while (C), (D), (G) and (H) in the P-deficiency solution. (A), (B), (C) and (D) show culture in the NH<sub>4</sub><sup>+</sup> solution. (E), (F), (G) and (H) show culture in the NO<sub>3</sub><sup>-</sup> solution. (I) and (J) NO production expressed as relative fluorescence intensity (% of minimal production). Data are means  $\pm$  SD (n = 10). Scale bar = 1 mm.



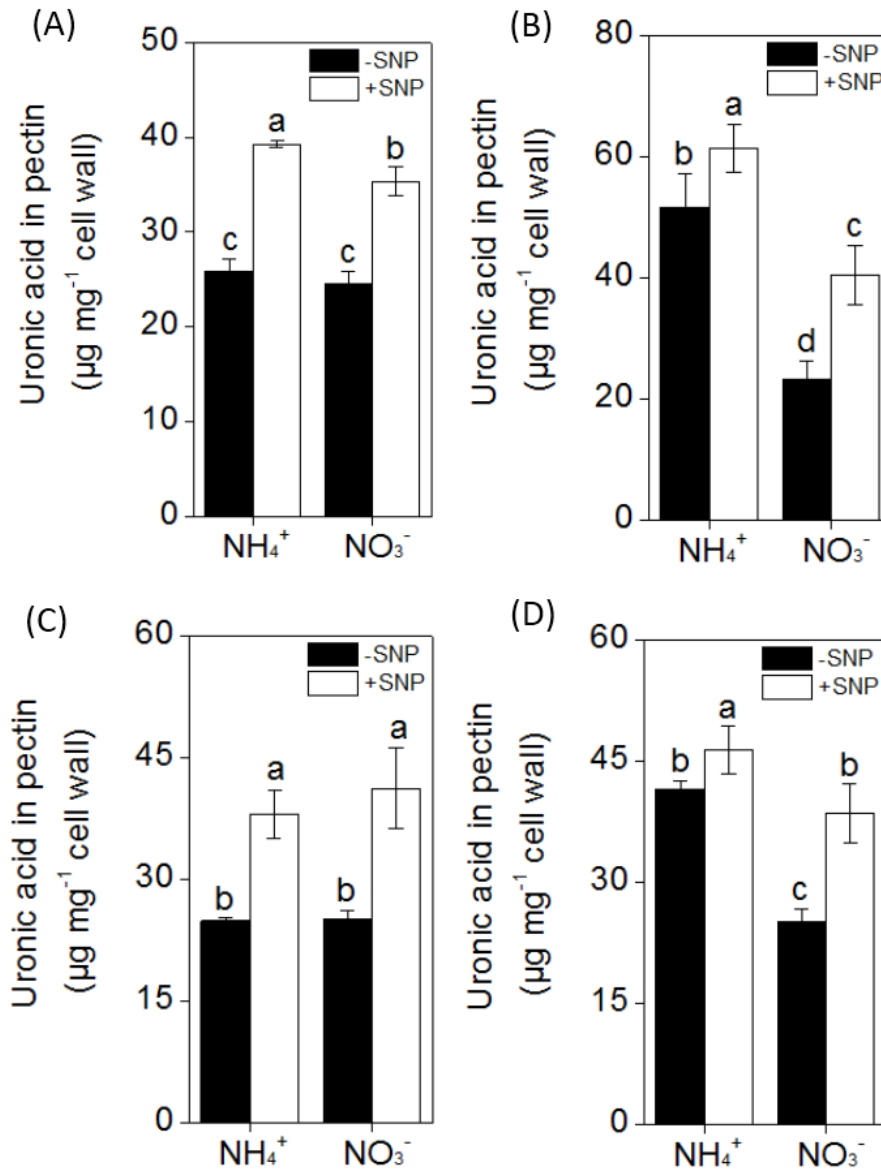
**Supplement Figure 2** Effect of exogenous NO addition on NO accumulation in ‘Kas’ root. Seedlings were treated with (B, D, F and H) or without (A, C, E and G) 2.5  $\mu$ M SNP for 24 h under four respective treatments (+P+NH<sub>4</sub><sup>+</sup>, -P+NH<sub>4</sub><sup>+</sup>, +P+NO<sub>3</sub><sup>-</sup> and -P+NO<sub>3</sub><sup>-</sup>), then the root tip were collected. (A), (B), (E), and (F) representative the green fluorescence of Kas roots in the P-sufficient solution, while (C), (D), (G) and (H) in the P-deficiency solution. (A), (B), (C) and (D) show culture in the NH<sub>4</sub><sup>+</sup> solution. (E), (F), (G) and (H) show culture in the NO<sub>3</sub><sup>-</sup> solution. (I) and (J) NO production expressed as relative fluorescence intensity (% of minimal production). Data are means  $\pm$  SD (n = 10). Scale bar = 1 mm.



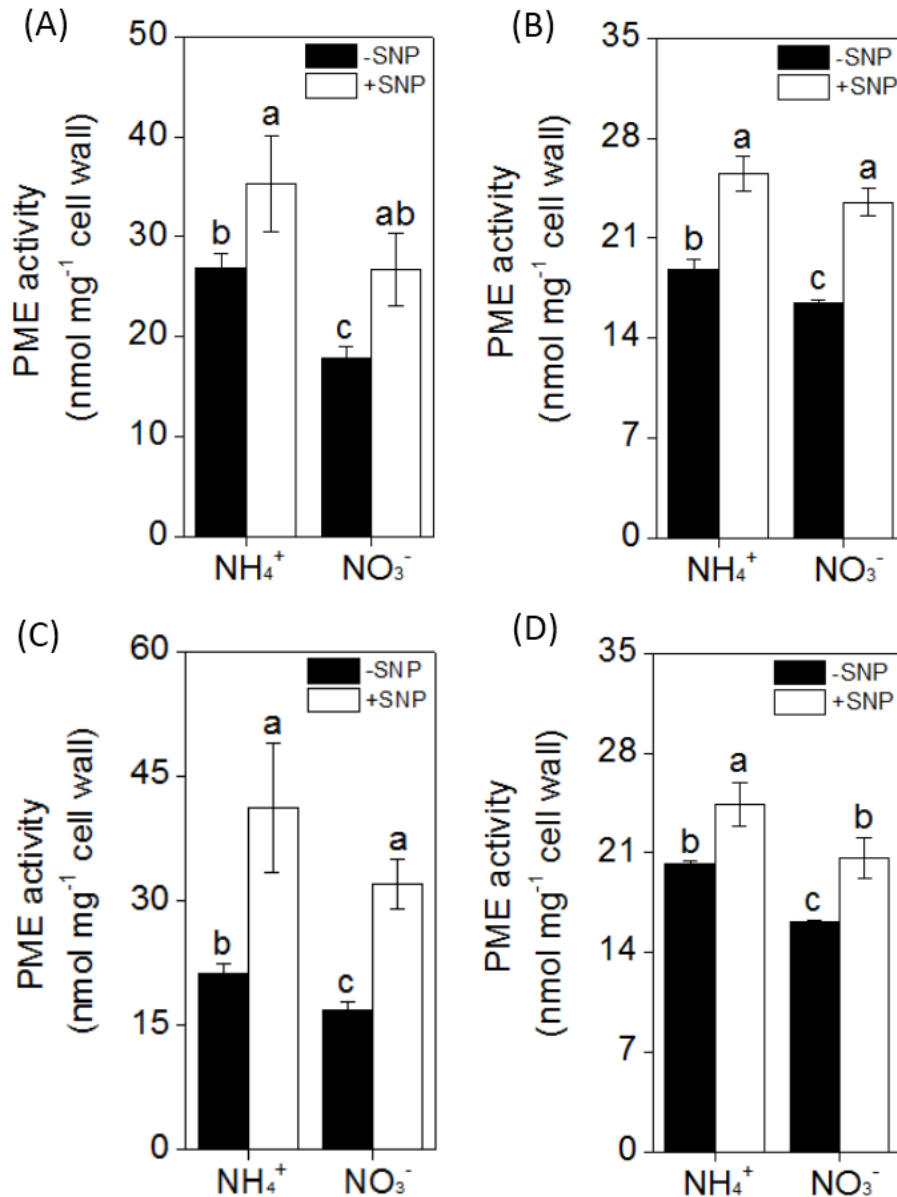
**Supplement Figure 3** Soluble Pi in the rice cultivar ‘Nip’. Seedlings were treated with or without 2.5  $\mu\text{M}$  SNP for 24 h under four respective treatments (+P+ $\text{NH}_4^+$ , -P+ $\text{NH}_4^+$ , +P+ $\text{NO}_3^-$  and -P+ $\text{NO}_3^-$ ), then the nutrient solution was totally renewed and the treated seedlings were still grown in P-deficient (A, B) or P-sufficient (C, D) solution containing different nitrogen forms ( $\text{NH}_4^+$  or  $\text{NO}_3^-$ ) for another 6 d, the root (A, C) and shoot (B, D) soluble Pi contents were measured. Data are means  $\pm$ SD (n = 4). Columns with different letters are significantly different at  $P < 0.05$ .



**Supplement Figure 4** Soluble Pi in the rice cultivar ‘Kas’. Seedlings were treated with or without 2.5  $\mu\text{M}$  SNP for 24 h under four respective treatments (+P+ $\text{NH}_4^+$ , -P+ $\text{NH}_4^+$ , +P+ $\text{NO}_3^-$  and -P+ $\text{NO}_3^-$ ), then the nutrient solution was totally renewed and the treated seedlings were still grown in P-deficient (A, B) or P-sufficient (C, D) solution containing different nitrogen forms ( $\text{NH}_4^+$  or  $\text{NO}_3^-$ ) for another 6 d, the root (A, C) and shoot (B, D) soluble Pi contents were measured. Data are means  $\pm$ SD ( $n = 4$ ). Columns with different letters are significantly different at  $P < 0.05$ .



**Supplement Figure 5** Effect of exogenous NO addition on the pectin content in Nip (A, B) and Kas (C, D) roots under P-sufficient (A, C) or P-deficient (B, D) condition. Seedlings were treated with or without 2.5 µM SNP for 24 h under four respective treatments (+P+NH<sub>4</sub><sup>+</sup>, -P+NH<sub>4</sub><sup>+</sup>, +P+NO<sub>3</sub><sup>-</sup> and -P+NO<sub>3</sub><sup>-</sup>), then the nutrient solution was totally renewed and the treated seedlings were still grown in P-deficient or P-sufficient solution containing different nitrogen forms (NH<sub>4</sub><sup>+</sup> or NO<sub>3</sub><sup>-</sup>) for another 6 d. Pectin content is indicated as uronic acid content in the cell wall. Data are means ± SD (n = 4). Columns with different letters are significantly different at P < 0.05.



**Supplement Figure 6** Effect of exogenous NO addition on the activity of pectin methylesterase (PME) in the cell wall of Nip (A, B) and Kas (B, D) roots under P-sufficient (A, C) and P-deficient (B, D) condition. Seedlings were treated with or without 2.5  $\mu$ M SNP for 24 h under four respective treatments (+P+NH<sub>4</sub><sup>+</sup>, -P+NH<sub>4</sub><sup>+</sup>, +P+NO<sub>3</sub><sup>-</sup> and -P+NO<sub>3</sub><sup>-</sup>), then the nutrient solution was totally renewed and the treated seedlings were still grown in P-deficient or P-sufficient solution containing different nitrogen forms (NH<sub>4</sub><sup>+</sup> or NO<sub>3</sub><sup>-</sup>) for another 6 d. Data are means  $\pm$  SD (n = 4). Columns with different letters are significantly different at P < 0.05.