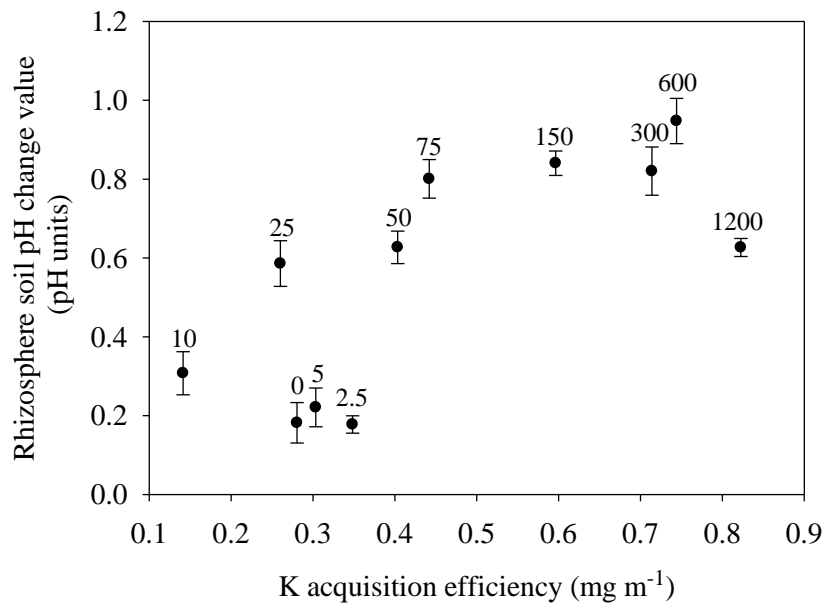


**Fig. S1** The response of wheat shoots to different P fertilization rates (in mg P kg<sup>-1</sup> soil) at the harvest time (37 days after planting).



**Fig. S2** The rhizosphere soil pH change (bulk soil pH minus rhizosphere soil pH) with K acquisition efficiency (total K uptake divide total root length). Each symbol represents the mean of five replicates ( $\pm$ SD). The numbers above each symbol indicate P added rates (mg kg<sup>-1</sup>).