

Response to reviewer-2		
Comment no.	Details	Response to reviewer
1	The present manuscript report the screening of 160 rice varieties to P deficiency and analysis with markers linked to the QTL responsible of phosphorous uptake. There are some revisions required which i list below:	-
2	1) The name of the QTL should be <i>Pup1</i> not <i>Pub1</i> as in the title. Moreover check through the text how it is named: <i>Pup1</i> (without space, i.e. L24), <i>Pup 1</i> (with space i.e. L27, L68) or <i>Pup1</i> (no italics L98, L260). Correct!	Thank you, we corrected them throughout the text.
3	2) Check the terminology of <i>Pup1</i> , QTL (L50), gene (L19, L24) and gene family (L59) are different things. It seems from literature that <i>Pup1</i> is a QTL, refer to this in the text	<i>Pup1</i> is a QTL, gene and gene family were used by the previous studies.
4	3) L26 UIR183 must be UL183	Thank you, we corrected in the text.
5	4) L119-122, the authors debate about the environmental conditions that influenced the severity symptoms. The experiment have been carried out in greenhouse, therefore, humidity, temperature and light intensity fluctuation should minimized across years respect open field. Did they monitored the internal conditions? In my opinion is important to have these information to give strength to the statement and to the GxY analysis	Thank you, We discuss about temperature on L170-174, The response of genotypes in term of PDTI in season 2 was higher than that in season 1 due to the lower average temperature (28°C) during the growing season 2 (2017). The average temperature in season 1 (2016) was 32°C. The availability of P- decreases when the temperature reaches to 30°C [30].
6	5) check degree (°C) with space (L168) or without space (L170)	Thank you, we edited in the text.
7	6) Is it possible in figure 3 to color the line belonging to different groups (according to figure 2), it could give a better readability	Thank you, we edited in Figure 3.
8	7) L205 what means 0 to 9, the scoring is 0/1	Thank you, we explained more about it. The 0 to 9 is the total presence of the expected products of <i>Pup1</i> linked marker bands.

9	8) About the paragraph 3.2 i found the discussion very poor the author should expand this part giving more details, as example discussing the combination of molecular and phenotypic data (i.e to which group belong each line) as well as provide more statistic on the markers (i.e PIC value)	We have added more discussion.
10	In general i recommend a native speaker revision in order to make some sentences more fluid and correct typos through the text	The manuscript was carefully edited one more time