

# Long-term green manure rotations improve soil biochemical properties and yield sustainability and decrease nutrient balances in acidic paddy soil under a rice based cropping system

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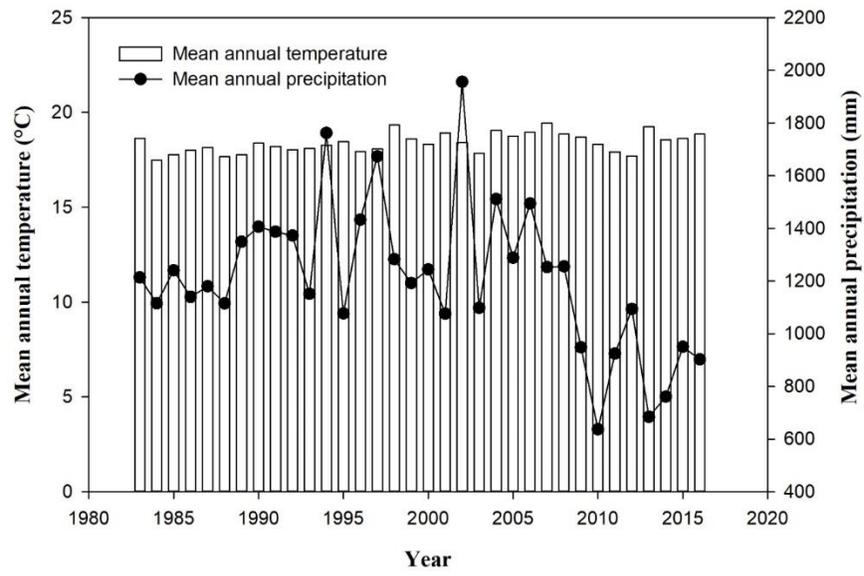
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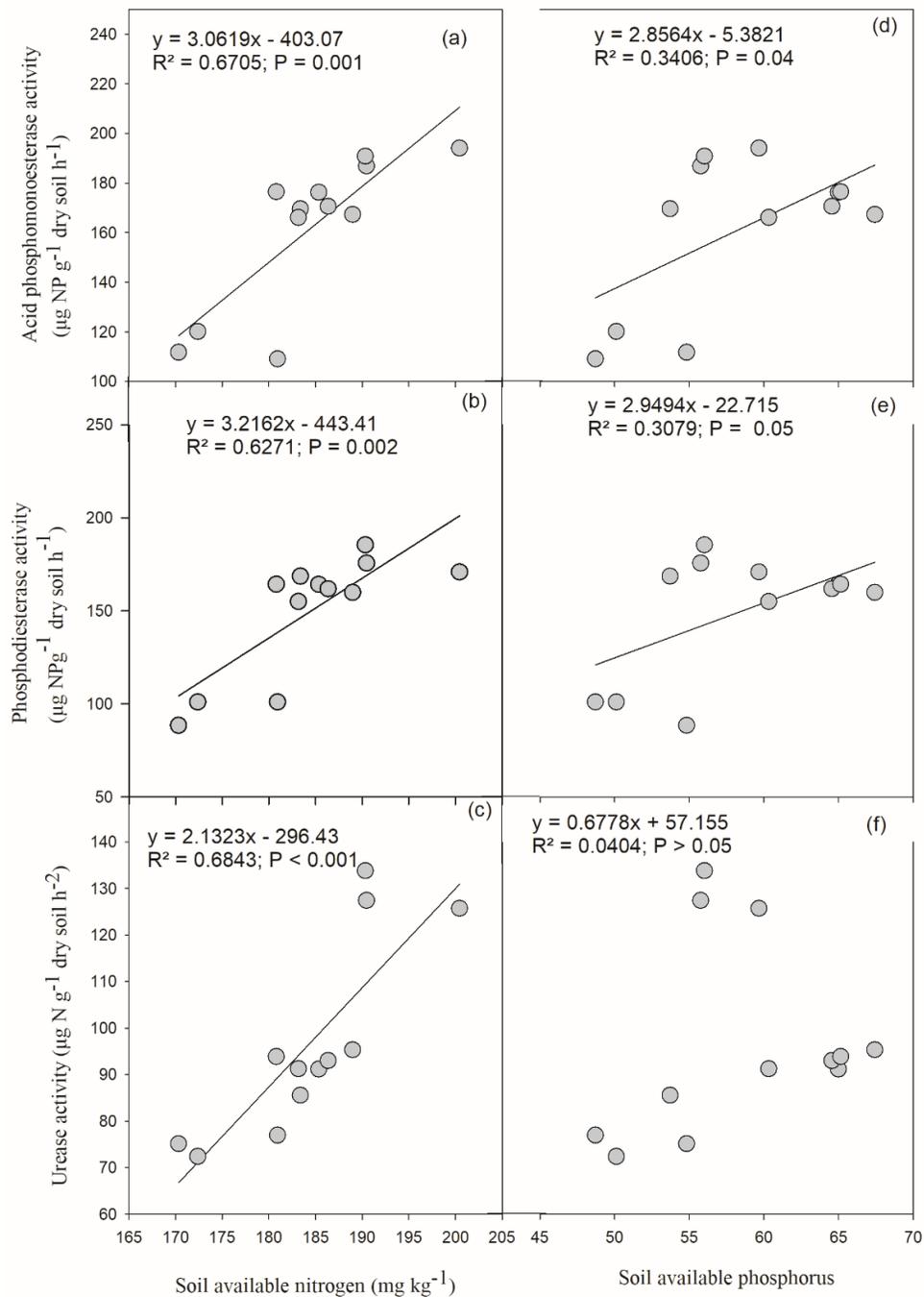
**Table S1.** The name of cultivars of rice sown in this experiment from 2009 to 2018.

Year	Early rice	Late rice
2009–2012	Jinyou 974	Jinyou 207
2013–2017	Lingliangyou 942	T You 207
2018	Yiliangyou 4156	Lingyouhuazhan

However, names of rice cultivars used before 2009 are missing, but in this experiment locally dominant cultivated rice varieties were cultivated during whole period of long-term experiment and all cultivars had similar potential yield.



**Figure S1.** Long-term (1983–2016) mean annual temperature and precipitation during the period of experiment of GM rotation in double rice cropping system.



**Figure S2.** Linear regression analysis indicating relationships of enzyme activities with available nitrogen and available Phosphorus under long-term green manure rotation in rice based cropping system.