ASSESSMENT OF ACID SULFATE INFECTED SOILS IN HAU GIANG PROVINCE
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Summary
Soil acidification is a major threat in Hau Giang province because it considerably reduced agri/aqua-cultural productivity as well as surface water quality. The purpose of this research is to evaluate the current status of acid sulfate infected soils in Hau Giang province with an aim of providing a solid foundation for minimizing adverse effects. In this study, total sulfate content in soil samples were analysed by the TCVN 6656:2000 method and spatial interpolation technique was applied to predict the spatial distribution patterns of acid sulfate infected soils across this province. The survey results revealed that the concentration of sulfate in surface soils varied spatially across this region. Non-acid soil covered only a small area of 3.33% meanwhile the low level of acid sulfate accounts for 31.52% of the total survey area; soils with the medium level of acid sulfate covered an estimated area of 12.68% of the entire survey region; and the soils with the high level of acid sulfate was estimated approximately 52.47% of the total survey area. The soils with the medium and high levels of acid sulfate in the top soil layer is recommended to limit conversion from paddy rice into orchards or sugarcane production. In addition, the maintainance of suitable surface water level on raised bed orchards in combination with lime and organic manure application are highly valuable for minimizing pyrite oxidation in Hau Giang’s agricultural soils.

Keywords: Acid sulfate infected soil, total sulphate, Hau Giang province.