**Abstract**

This study analyzed salinity concentration in 76 soil samples, 88 irrigation water samples in April and Jun of 2019 in 3 communes surrounding Tam Giang lagoon. There are 135 farmers who were interviewed about salinity intrusion and their behavior in rice production. Salinity map of soil, irrigation water were built by interpolating in ArcGIS. The results showed that: (i) salt concentration level of irrigation water and soil in the summer-autumn season was higher than in the winter-spring season; (ii) the area of paddy land affected by salinity in the summer-autumn season was higher than in the winter-spring season; (iii) Saline intrusion has affected rice yields in both winter-spring and summer-autumn crops in research communes.