

FLUCTUATION OF SILINITY AND CHERMICAL CHARACTERISTICS OF RICE SOIL AT THE DIFFERENT POTASSIUM DOSE IN DUY XUYEN DISTRICT, QUANG NAM PROVINCE

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Summary

The field experiment was carried out with 5 different potassium levels (0, 30, 60, 90 và 120 kg K₂O/ha) on foundation 8 tons cattle manure + 100 kg N + 60 kg P₂O₅ for 2 salty tolerance rice varieties, namely OM8104 and MNR3, arranged in split plot design (K in the sub plot and variety in main plot) with three replicates in winter-spring 2012 - 2013 and summer-autumn 2013 seasons on saline soil of Duy Xuyen district, Quang Nam province. The objectives of this study were to evaluate fluctuation soil and water silinity in the rice field, and chermical characteristics of soil at the different potassium doses. The research results indicated that soil and water silinity hevan't fluctuation in winter-spring season but have fluctuation in summer-autumn season at the different potassium doses as well as at the growth and developmement stages. In summer-autumn soil salinity obtain the highest (8.9 ds/m) at the dose of 30 kg K₂O/ha in the 75 days after sowing (after flowering 10 days) and water silinity obtain the highest (9.0 ds/m) at the dose of 30 kg K₂O/ha too in the 60 days after sowing (starting flowering). The doses of potassium from 30 to 60 kg K₂O/ha improve well some chermical characteristics of saline soil as improving of pH, increasing the total of organic matter, CEC, nitrogen, phosphorus and potassium, cation K⁺ and Ca²⁺ and reducing amount of saline anion Cl⁻ and SO₄²⁻.

Keywords: *Doses of potassium, chermical characteristics, fluctuation, silinity, soil.*