

EFFECT OF ORGANIC FERTILIZER WITH *Trichoderma* AND *Pseudomonas* PREPARATIONS ON GROWTH, DEVELOPMENT AND YIELD OF GROUNDNUT IN COASTAL SANDY SOIL OF THUA THIEN - HUE PROVINCE

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Summary

Organic fertilizer and biological preparations are not only increasing crop yield but also can rise effect of chemical fertilizer and improve soil fertility. The study was conducted in 4 cropping seasons consecutively, winter spring 2013 – 2014, summer autumn 2014, winter spring 2014 – 2015 and summer autumn 2015 in coastal sandy soil at Quang Loi commune, Quang Dien district, Thua Thien -Hue province which consisted of 6 treatments, ranging in RCBD with 3 replications. The objective of this study to evaluate the effect of organic fertilizer with *Trichoderma* and *Pseudomonas* preparations on growth, development and yield of groundnut. The results showed that all treatments with *Trichoderma* and *Pseudomonas* in combination had positive effects on the main branch length, number of leaves/main branch, total of branches, length of first branch, total of flowers, effective flower ratio and actual yield in comparison with the treatments with *Trichoderma* or *Pseudomonas* in single and the control (ĐC2). The treatment VI, applying 02 ton organic fertilizer + 40 kg N + 60 kg P₂O₅ + 60 kg K₂O + 400 kg lime + *Trichoderma* and *Pseudomonas* with ratio of 50:50 had increased the main branch length, number of leaves/main branch, length of first branch, number of effective flowers and actual yield of groundnut. This quantity of fertilizer, groundnut yield reached the highest in the both cropping seasons. In winter spring season pod yield attain 2.72 ton/ha, increasing 16.75% comparison with the control treatments 1 and 19.36% comparison with the control treatments 2. In summer autumn season pod yield attain 1.59 ton/ha, increasing 36.79% comparison with the control 1 and 38.21% comparison with the control 2.

Keywords: *Groundnut, organic fertilizer, preparations, Pseudomonas, Trichoderma, yield.*