

ABSTRACT

Fauzan Zakaria¹ and Nurdin. 2016. Increasing rice productivity by manipulation of calcium fertilizer in Ustic Endoaquert.

National rice production needs to be improved and maintained to meet the demands of fast growing population. One of the ways to meet this demand is through cultivating the rain fed land in many areas which its physical characteristics are challenging factor. This research aims at finding out the feedback of the rice production on the calcium fertilizer following the administration of river sand, beach sand, coco peat, and banana peat in ustic endoaquert. This research is implemented in rain fed field composed of vertisol soil in Sidomukti village of Mootilango Gorontalo, Indonesia. The subjects are randomly chosen and the treatments are separately implemented in two sub-group of vertisol soil. There are five treatments that were repeated three times, thus, there are 15 pieces of trials in each sub-vertisol groups. This research reveals that the administration of K fertilizer following the administration of river sand, beach sands, coco peat, and banana trunks fiber has significant effect on the number of grain, the weight of 1000 grains and the total weight of the grains. Meanwhile, the administration of K fertilizer following the administration of beach sand, coco peat and banana peat has significantly influenced the number of stalk, the length of stalk, and the total weight of the grains.

Keywords: Calcium fertilizer Potassium Rice Productivity Ustic endoaquert