

ABSTRACT

This research aimed to make a comparison, a dosage of activated charcoal briquettes that made from the shell of coconut, wood, rice husks that appropriate and gave the best impact to decrease the rate of water losses and leaching of nutrients in the cultivation of shallot at the sandy soil of Samas beach in Bantul. This research has been conducted in June - December 2015 took place in Minggir, Sleman, Yogyakarta and Postharvest Laboratory, Faculty of Agriculture, Muhammadiyah University Of Yogyakarta.

The research was conducted in non-factorial experiment which arranged in a completely randomized design (CRD), which consists of 7 treatments, there were: (A) a mixture of sandy soil of beach without briquettes; (B) The sandy soil of beach + coconut shell activated charcoal briquettes (2: 1); (C) The sandy soil of beach + coconut shell activated charcoal (4: 1); (D) The sandy soil of beach + activated charcoal briquettes of wood (2: 1); (E) The sandy soil of beach + activated charcoal briquettes of wood (4: 1); (F) The sandy soil of beach + rice husk charcoal briquettes (2: 1); (G) The sandy soil of beach + rice husk charcoal briquettes (4: 1). Each treatment was repeated three times, thus obtained 21 experiment units. Each unit consisted of three plants, so there were 63 polybags plants.

The results showed that (1). Soil planting medium of sand and rice husk charcoal briquettes with a ratio (4 : 1), provide quality onion crop growth better than other treatments . (2). Soil planting medium of sand and activated charcoal briquettes rice husk ratio (4 : 1), can improve the quality of soil colloids and reducing the rate of leaching of nutrients compared to other active charcoal briquettes.

Keywords: Shallot, sandy soil of beach, activated charcoal briquettes, coconut shell, wood, rice husk