

Title Nutritional quality and yield of cauliflower (*Brassica oleracea* var. *Botrytis*) as affected by fertilizer sources

Author Farahzety A.M., Siti Aishah H., Illias M.K.

Citation Abstracts of 7th International Postharvest Symposium 2012 (IPS2012). 25-29 June, 2012. Putra World Trade Centre (PWTC), Kuala Lumpur, Malaysia. 238 pages.

Keywords Compost; vermicompost; empty fruit bunches compost; cauliflower; curd

Abstract

The effects of fertilizer sources on the nutritional quality and yield of cauliflower grown under protective structure were determined. The organic fertilizers were from three different compost sources consisting of oil palm empty fruit bunches compost (EFBC), chrysanthemum residues compost (CRC) and soybean wastes compost (SWC) and two different vermicompost sources namely green wastes vermicompost (GWV) and vegetable waste vermicompost (VWV) with inorganic fertilizer NPK (12: 12: 17) as a control treatment. The treatments were laid out in randomized complete block design replicated three times. The amount of fertilizer applied was calculated based on 180 kg h^{-1} of nitrogen. Application of SWC and EFBC resulted into slightly higher nitrogen content in cauliflower curds. Phosphorus and potassium contents were not significantly difference among the treatments. Where as, magnesium and zinc were increased and slightly higher in organics compared to chemically fertilized plant with curds of EFBC has the highest values. However, there were no significant differences in ascorbic acid content and total carotenoid content of cauliflower among the different fertilizer sources. The curds of VWV can be harvested 7 days earlier than plants fertilized with inorganic fertilizer although the yield and curd size were similar with EFBC and inorganic plants. Highest curd weight (484.43 g) was obtained by the application of VWV although statistically no differences with inorganic fertilizer plants and EFBC. VWV and EFBC compared well with NPK fertilizer based on their effects on growth and yield performance. VWV and EFBC showed promising results and therefore could be recommended to replace inorganic fertilizer to fulfill nutrient element requirement of cauliflower.