

ABSTRACT

Water spinach also contains sedative compounds that can reduce tension and promote relaxation; it contains phytochemicals that act as bioactive components and natural antioxidants for the body, and can help reduce the risk of cancer, liver disease, stroke, high blood pressure, and gastrointestinal infections. This study was conducted at the Experimental Farm of the Faculty of Agriculture, Malikussaleh University, and the Agroecotechnology Laboratory of the Faculty of Agriculture, Malikussaleh University, in North Aceh Regency. The study was carried out from December to January 2024. The materials used in this study were seeds of the Bangkok LP-1, Bisi, and Bika varieties of land water spinach, 45 cm x 45 cm polybags, soil, and coffee husk fertilizer. A two-factor randomized block design (RBD) was used with three replications. The first factor was coffee husk fertilizer (K), consisting of K0 (0 g/polybag), K1 (50 g/polybag), K2 (100 g/polybag), and K3 (150 g/polybag). The second factor was water spinach variety (V), namely V1 (Bika variety), V2 (Bisi variety), and V3 (Bangkok LP-1 variety). The observed parameters were plant height, number of leaves, leaf chlorophyll, root length, fresh weight, and shelf life. The application of 150 g of coffee husk fertilizer per polybag resulted in the best growth and yield for land water spinach. The variety used significantly affected the growth and yield of land water spinach. The Bisi variety produced the best growth and yield for land water spinach. There was no interaction between the combination of coffee husk fertilizer and the different varieties on the growth and yield of land water spinach.

Keywords: fertilizer dosage, water spinach, coffee waste, and organic fertilizer