

Effect of tender shoot removal time on tuber yield of sweet potato

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Abstract

An experiment was conducted at the Agriculture Research Station, Thelijjawila to find out the best shoot tip removal time on sweet potato tuber yield with highest nutritional content of sweet potato leaves. The experiment was established in a Randomized Complete Block Design with three replicates and six treatments. A piece of 18-inch length of tender shoot was removed from the apical ends of every branch of sweet potato vines starting from 6 weeks after planting (WAP) and continued every two week intervals (6, 8, 10, 12 and 14 WAP) and a control treatment was maintained without removing tender shoot. Removed tender shoots were cut into five noded cuttings from basal ends and were taken as planting materials. Tender shoots which had less than five nodes, were considered as leafy vegetable. Number of tender shoots, and their fresh weight, number of planting materials, and their fresh weight were recorded. Protein and mineral content of leafy vegetable parts were also measured. Tuber yield was taken after 3½ months. Results revealed that number of tender shoots/ha and number of planting materials/ha were significantly higher in the treatments when tender shoots were removed 10, 12 and 14 WAP while their fresh weights were not significantly different among treatments. Protein content was significantly high in the treatments with removal of tender shoots, 12 and 14 WAP. A significant difference in mineral content between treatments was not observed. Fresh weight of tubers/ha was significantly higher in 10, 12, 14 WAP and in the control treatment. Best time to obtain tender shoots from TJ 01 sweet potato variety either as planting material or culinary purpose is starting from 10 WAP without adversely affecting to tuber yield.

Keywords: *Leafy vegetables, Planting material, sweet potato, Tender shoots*