



219/B

Proximate analysis of seeds of vegetable cowpea (*Vigna unguiculata* L.) fertilized with EM treated animal manure Bokashi

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A proximate analysis was done at the Eastern University of Sri Lanka to study the effect of different animal manures EM-bokashi, on the quality parameter of seeds of vegetable cowpea (*Vigna unguiculata* L.) cv-BS-1. The pot experiment was laid out in Complete Randomized Design with five treatments and fifteen replications. The treatments included application of recommended chemical fertilizer (T₁), non-fertilizer (T₂), cattle manure EM-bokashi (T₃), goat manure EM-bokashi (T₄) and poultry manure EM-bokashi (T₅). Each animal manure EM-bokashi was prepared in an aerobic condition and applied at the rate of 300 g/m² as basal and top dressing application, which were applied two weeks before planting and four weeks after planting respectively. All other agronomic practices were followed as recommended by the Department of Agriculture of Sri Lanka. At the time of harvesting, well matured pods were randomly selected from each treatment and subjected to proximate analysis. Moisture, ash, protein and crude fiber contents were analyzed. The results revealed that the animal manures EM-bokashi have significant ($p < 0.01$) influence on moisture, ash, protein and crude fiber contents of the seeds than chemical and non-fertilizer. Among the different types of animal manures EM-bokashi, it was noted that goat manure EM-bokashi applied seeds showed highest value in ash (3.88%), protein (20.91%) and crude fiber (6.60%) contents with the optimum amount of moisture (10.98%). Reason for this consequence is higher amount of potassium present in goat manure than other two animal manures. Potassium is the major component of ash and also potentially require for protein synthesis. As compared to chemical fertilizer (control), it is evidence that application of animal manures treated with EM solution especially goat manure improves the seed quality in terms of protein and crude fiber contents.