





Ash content was determined using the method of AOAC [22] which involved igniting the samples in muffled furnace at 550°C (dull red) until grayish white residue remained. The residue was cooled in a desiccator and weighed.

90	$7.0 \pm 1.2^b$	$3.7 \pm 0.5^b$	$11.7 \pm 1.8^b$	$17.5 \pm 1.9^a$	$24.0 \pm 2.5^c$	$25.5 \pm 0.2^a$	$2.5 \pm 0.5^a$
100	$7.0 \pm 1.3^b$	$3.7 \pm 0.2^b$	$11.5 \pm 2.1^b$	$17.9 \pm 2.5^a$	$26.0 \pm 2.8^c$	$25.2 \pm 0.4^a$	

65D'fla [0 <sup>-1</sup> t	Ac]ghifY	7fiXY'DfchY]b	7fiXY':]VfY	7fiXY':Uh	5g\` [##\$\$' [	7UfVc\mXfUhY	:GK' [#D'Ubh
0	12.3 ± 3.4 <sup>a</sup>	9.6 ± 3.6 <sup>b</sup>	11.2 ± 2.2 <sup>e</sup>	1.4 ± 0.8 <sup>d</sup>	9.5 ± 2.4 <sup>d</sup>	50.0 ± 5.8 <sup>c</sup>	9.3 ± 3.4 <sup>d</sup>
10	9.7 ± 2.8 <sup>b</sup>	13.4 ± 3.8 <sup>a</sup>	14.7 ± 2.2 <sup>d</sup>	3.5 ± 0.6 <sup>a</sup>	12.6 ± 2.7 <sup>c</sup>	46.1 ± 4.8 <sup>c</sup>	12.8 ± 3.7 <sup>c</sup>
20	9.7 ± 2.6 <sup>b</sup>	13.4 ± 3.2 <sup>a</sup>	16.7 ± 1.8 <sup>c</sup>	3.5 ± 0.6 <sup>a</sup>	15.7 ± 2.6 <sup>b</sup>	41.1 ± 4.9 <sup>c</sup>	16.6 ± 3.8 <sup>b</sup>
30	9.6 ± 2.6 <sup>b</sup>	13.4 ± 2.9 <sup>a</sup>	18.8 ± 1.6 <sup>c</sup>	3.5 ± 0.8 <sup>a</sup>	15.8 ± 2.6 <sup>b</sup>	38.9 ± 4.9 <sup>b</sup>	19.9 ± 4.3 <sup>b</sup>
40	9.2 ± 2.7 <sup>b</sup>	13.4 ± 2.9 <sup>a</sup>	18.6 ± 1.8 <sup>c</sup>	3.6 ± 0.4 <sup>a</sup>	18.5 ± 3.7 <sup>a</sup>	36.7 ± 4.5 <sup>b</sup>	19.8 ± 4.2 <sup>b</sup>
50	9.2 ± 2.6 <sup>b</sup>	13.4 ± 2.6 <sup>a</sup>	18.4 ± 2.4 <sup>c</sup>	3.6 ± 0.4 <sup>a</sup>	18.9 ± 3.8 <sup>a</sup>	56.5 ± 4.3 <sup>a</sup>	25.5 ± 4.6 <sup>a</sup>
60	9.4 ± 2.8 <sup>b</sup>	13.6 ± 2.7 <sup>a</sup>	17.5 ± 2.4 <sup>c</sup>	2.4 ± 0.7 <sup>b</sup>	18.7 ± 3.2 <sup>a</sup>	56.4 ± 4.4 <sup>a</sup>	26.0 ± 3.2 <sup>a</sup>
70	9.4 ± 2.8 <sup>b</sup>	13.5 ± 2.9 <sup>a</sup>	20.6 ± 2.6 <sup>b</sup>				

a

c

100	0.9 ± 0.0 <sup>a</sup>	0.9 ± 0.0 <sup>a</sup>	46.5 ± 2.1 <sup>a</sup>	40.4 ± 4.1 <sup>c</sup>	45.3 ± 2.8 <sup>d</sup>	25.0 ± 2.8 <sup>a</sup>	27.9 ± 2.9 <sup>a</sup>
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**Table 4:** Influence of plant growth regulators on mineral composition of *Solanecio bialfræ*. Means followed by different superscripts in the same column are significantly different at 5% level of probability using Duncan multiple range test.

✉— J. G. O.

*Solanecio bialfræ* is an important indigenous leaf vegetable in tropical rainforest regions of Africa, whose supplies fall short of market demands as a result of its slow growth and regeneration from vegetative propagule. Productivity of *S. bialfræ* is measured by rapid formation of high quality and succulent shoots capable of providing nutritional and health benefits over a period of time. 6-benzylaminopurine is a cytokinin that promotes bud initiation, leafy shoot growth and development in many crop species, including vegetables by cell division and enlargement and tissue differentiation [25].

In this study, a single external application of BAP solution on stem-cuttings immediately after planting promoted rapid formation of shoot buds than the control treatment. It is possible that exogenous BAP stimulated rapid cell division, differentiation and enlargement of meristematic cells resulting in early formation of shoot buds observed in the treated cuttings. Our results revealed that medium concentrations (6.8 mg L<sup>-1</sup>) of exogenous BAP produced higher number of shoots than lower and higher BAP concentration. Low BAP concentration might not be enough to stimulate shoot bud formation while high concentration of BAP caused cell death. Evidence of programmed cell death has been reported at high exogenous BAP concentrations in *Epi can b*.

proteins. In addition, 60 mg L<sup>-1</sup> BAP favored highest partitioned of crude protein, fat, ash and carbohydrate in leaf tissue containing highest concentration of leaf K, Mg and Ca.