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The effect of broiler litter combined potting media on growth and yield performances of spinach (*Basella alba* L.)

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An experiment was conducted to study the effect of three potting media and mixing of above media with broiler litter in three different ratios on the growth and yield performances of spinach (*Basella alba* L.). Three media (coir dust, sawdust, sand) were mixed with broiler litter in three different ratios (1:1,1:1.5,1:2). Broiler litter was heaped and covered with a polythene sheet for two weeks before used for the experiment. Each treatment combination had four replicates. Polythene bags (25×38cm) were filled with respective mixture of potting medium. One germinated seedling was planted in the bag.

The number of leaves per plant was taken in weekly interval. At the end of the seventh week, the total leaf area and fresh weight were measured. After first harvest, the plants showed typical nitrogen deficiency symptoms of yellowing in ratoon crop. Data was analysed using Factorial Completely Randomized Design with SAS computer package.

The highest no of leaves per plant was observed in treatment of litter: sand in 1:1.5 whereas litter: coir dust in 1:1.5 gave the lowest. Results also revealed that, treatment of litter: sawdust in 1:1.5 recorded the highest fresh weight (241.2 g) and total leaf area (2689.2 cm^2). Therefore it can be concluded that litter: sawdust in1:1.5 mixture could be used as a potting medium for spinach but it supported only one successful harvest.

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