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Abstract:	Sweet potato (Ipomoea batatas L.) an important member of the family Convolvulaceae has been originated in America (Mexico, Central America) and the North Western part of South America. Globally, it is among the important food crops in the world, after wheat, rice, maize, Irish potato and barley. It ranks second following Irish potato in the world's root and tuber crop production. Sweet potato, locally known as "shakarkand", is commonly planted in flat to slightly rolling open areas.The crop is also known to be a cheap but excellent source of carbohydrates, vitamin A, calcium, and phosphorus. The edible tuberous root is long and tapered, with a smooth skin with colour range between yellow, orange, red, brown etc. Sweet potato varieties with white or pale yellow flesh are less sweet and moist than those with red, pink or orange flesh. Jharkhand is the 7th largest producer of sweet potato only after Orissa, UP, MP, Assam, Bihar, WB. Plant growth regulators are the chemical compounds which have given favourable impact on growth, yield and quality of sweet potato. Though, agronomical practices for sweet potato has been standardized and there is always demand for enchancing its yield from the growers. Hence, the present investigation has been formulated to find out feasibility of increment in yield of sweet potato by means of application of growth regulators in the till date most accepted variety of sweet potato, Sree Bhadra by the growers in the state of Jharkhand. The investigation was conducted in the Horticulture Research unit during Kharif season of 2016 with seven bioregulators viz. Triacontonol, GA3, NAA, IAA, Salicylic acid, Ethrel and MH in Randomized Block Design replicated thrice. The inference of data revealed that GA3 @100 ppm exhibited highest vine length (147.70 cm), internodal length (4.40 cm), girth of stem (2.36 cm), number of leaves (121.12) and LAI (6.55). Due to better vegetative growth traits the treatment receiving GA3 @100 ppm also showed better Yield attributes and Yield (27.10 t/ha). GA3 @ 50 ppm and Triacontonol @ 500 ppm were emerged as second and third ranker respectively better vegetative traits and Yield attributes and hence B:C ratio of 2.27:1 and 2.20:1 compared to best treatment i.e. GA3 @ 100 ppm with B:C ratio of 2.29:1 and control with fetched least B:C ratio of 1.45:1. Hence, on the basis of overall observations GA3 @ 100 ppm has been identified as promising one for profitable cultivation of sweet potato in the state of Jharkhand.
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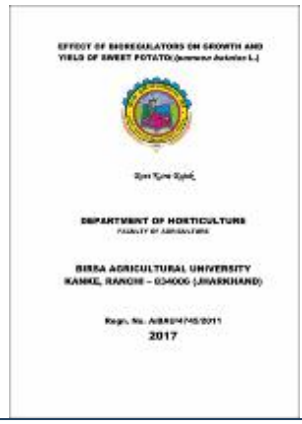

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