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COMPARATIVE EFFICACY OF BIO-FERTILIZER AND CHEMICAL FERTILIZER ON STEVIOSIDE PERCENTAGE IN MEDICINAL PLANT, *STEVIA REBAUDIANA* BERTONI

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ABSTRACT: *S. rebaudiana*, a natural bio-sweetener, is fast becoming a major source of high potency sweeteners for the rapidly growing market for natural foods, replacing chemical sweeteners. International demand is only for high quality *S. rebaudiana* leaves having minimum 9% stevioside content, thus *S. rebaudiana* cultivation can be a successful venture. A field experiment was conducted at the Sanwaria Herbal and Musali Farm, Misrode, Bhopal (M.P.) to study the comparative effect of agro-techniques on stevioside percentage in *S. rebaudiana* by applying chemical fertilizer urea and bio-fertilizer vermicompost singly and in combination. The results showed that the stevioside percentage increased significantly due to inorganic chemical and bio-fertilizer applications. Stevioside percentage was recorded the highest (17.108%) with the application of vermicompost. This is further followed by 14.872 % and 14.439 % with the application of urea and combined applications of vermicompost + urea respectively.

Key words : *Bio-fertilizer, bio-sweetener, crop-diversification, medicinal plant.*