

**National Conference on Organic & Natural Farming-
A Tool for Sustainable Agriculture & Economic Development**

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SOUVENIR AND ABSTRACTS



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Organizers

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Growth and yield of cardamom (*Elettariacardamomum* Maton) variety PV2 as influenced by organic amendments in high uplands of Idukki, Kerala

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Organic production of spices is very important in the light of long term sustainability of the production systems. Spices are high value export oriented crops. Therefore, stringent specifications on pesticide residues and other chemical contaminants are to be strictly followed so as to increase the export of the spices from India. Cardamom is recognized as one of the most valuable export oriented spice crops that need to be produced organically to achieve the goal of long term sustainability. The present study was conducted at the Cardamom Research Station, Kerala Agricultural University, Pampadumpara during 2013 to 2017. The aim was to evaluate the response of cardamom variety PV2 to different organic amendments, bio-fertilizers and fermented organic preparation such as *Jeevamrutha*. The treatments included, farm yard manure @30t/ha (T1); coir pith compost @ 15t/ha (T2); vermicompost@15t/ha (T3); *Jeevamrutha* 20l/plant(T4); a combination of farm yard manure @ 30t/ha along with *Azospirillum*, *Phosphorous solubilizing bacteria* (PSB) and *Trichoderma viride* each @10g/clump (T5); coir pith compost@ 15t/ha along with *Azospirillum* and *Trichoderma viride* each @10g/clump (T6); a combination of vermicompost @15t/ha along with *Azospirillum*, PSB and *Trichoderma viride* each @10g/clump (T7); a combination of *Jeevamrutha*@20l/plant along with *Azospirillum*, PSB and *Trichoderma viride* each @10g/clump (T8) and Control (Kerala Agricultural University, Package of Practice recommendation (T9), replicated thrice in a randomized block design. The treatments were superimposed and evaluated on three year old cardamom plants. Biometric as well as yield attributing parameters were recorded in each crop season and the data were processed statistically. Evaluation of the effect of different organic amendments on the growth and yield of cardamom (variety PV2) showed that the combined application of *Jeevamrutha* (20l/plant) along with *Azospirillum* (10g/clump) + PSB(10g/clump) + *Trichoderma viride* (10g/clump) was the best treatment with highest fresh (2424.4 g plant⁻¹) and dry capsule yield (479.6 g plant⁻¹) followed by *Jeevamrutha* (20l/plant) at monthly intervals. The BC ratio was also highest for the above best treatment.

Key words Cardamom, beneficial organisms, bio-fertilizers, organics