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Effect of biostimulants on yield and post harvest quality of gladiolus cv. WHITE PROSPERITY

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ABSTRACT : The investigations on gladiolus cv. WHITE PROSPERITY were carried out at the Horticultural Research Station Yercaud, Salem district, during 2009-2010 to find out the effect of biostimulants on gladiolus with reference to growth, yield and post harvest quality attributes. The experiment was laid out in Randomized Block Design consisted of three biostimulants viz., humic acid, *Panchagavya*, vermiwash and combinations comprising of seven treatments. Various growth characters were recorded at 15 days interval after planting. The yield components were recorded after spike emergence. The post harvest quality attributes were analysed after harvest. The physiological characters were also studied from 45 days after planting. The study revealed that, gladiolus showed better response to the foliar application of 0.2 per cent humic acid significantly. All the morphological parameters exhibited positive and better response in humic acid treatment compared to other biostimulants and its combination. The economic traits were positively influenced by humic acid application. Foliar application of 0.2 per cent humic acid led to early spike emergence (46.46 days) than control (55.33 days). The highest spike length, rachis length and number of floret per spike were higher in foliar application of 0.2 per cent humic acid. This also increased the yield of spike per plant and per square meter with regard to the post harvest quality characters, longevity of cut spike in tap water and in 2 per cent sucrose were greatly influenced by the same treatment. Foliar application of 0.2 per cent humic acid increased corm weight, corm diameter and number of cormels.

KEY WORDS : Gladiolus, INM, Biostimulants, Foliar spray

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