



Research Paper

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Effect of chemical fertilizer and vermicompost on yield and nutrient content and uptake by fruit of banana (*Musa parasidiaca* L.) cv. GRAND NAINÉ

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ABSTRACT : The experiment was carried out at Jambuvadi farm, Department of Horticulture, Junagadh Agricultural University, Junagadh during 2008-09 and 2009-10 to study effect of chemical fertilizer and vermicompost on yield and content and uptake in fruit of banana cv. GRAND NAINÉ. The highest yield, content and uptake by fruit of banana were recorded with the application F₂ (Full recommended doze) and V₃ (8 kg vermicompost) in the both year and pooled results, but it was at par with the treatment F₁ and V₂ in both the year and pooled results, respectively. The interactive effects between fertilizer levels and vermicompost (F×V), (Y×F), (Y×V), and (Y×F×V) in yield, content and uptake by fruit of banana were found non significant during both the years as well as in pooled results.

KEY WORDS : Banana, Grand Naine, NPK, Fruit, Content, Uptake

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Banana (*Musa paradisiaca* L.) is an important fruit crop in tropical and sub tropical regions. The fruit is delicious and seedless in nature. It is a staple food for millions of people and most important commercial fruit of the tropical areas of the world. In India, banana is grown in different agroclimatic conditions. On a commercial scale, it is being cultivated in Tamil Nadu, Maharashtra, Assam, Karnataka, Andrapradesh, Orissa, Gujarat, Bihar, Kerala and West Bengal. At together contribute over 62 per cent to the country's total banana production (Anonymus, 2010a). The area under banana in India is 646.9 lakh ha with production of 232.04 lakh tones and productivity is about 35.9 MT per ha (Anonymus, 2010b). In Gujarat, mostly banana crop is grown in south Gujarat. Banana growing major districts are Bharuch, Narmada, Junagadh, Kheda, Surat and Baroda. At the present level of area and production, it occupies about 6.19 lakh hectares of

land and production is about 3779.8 MT and productivity is about 64.8 MT per hectare in Gujarat (Anonymus, 2010b). GRAND NAINÉ variety of banana is a popular variety grown mostly in all export oriented countries of Asia, South America and Africa. Due to several desirable traits like excellent fruit quality, resistance to *Fusarium wilt* etc., it has proved better variety. However, its organic and inorganic requirement is not well documented for the Gujarat region. Keeping these aspects in mind, the present investigation was undertaken to find out the suitable combination of organic and inorganic fertilizers for banana cv. GRAND NAINÉ.

RESEARCH METHODS

The field experiment was conducted on effect of effect of chemical fertilizer and vermicompost on yield and nutrient content and uptake by fruit of banana (*Musa parasidiaca* L.)