

## Economics of baby corn cultivation under sole and intercropped situation with leguminous vegetables

D. NATARAJ\*, K.N. KALYANA MURTHY, C.M. SUNIL AND V. MADHUKUMAR

Department of Agronomy, College of Agriculture, University of Agricultural Sciences, G.K.V.K., BENGALURU (KARNATAKA) INDIA (Email : sadhanaanu123@gmail.com)

### ABSTRACT

An experiment was conducted during *Rabi* 2007 on a sandy loam soil at Agriculture College, V.C.Farm, Mandya (Karnataka) to identify the suitable and profitable baby corn based leguminous vegetable inter cropping system.. The experiment comprised of 13 treatments consisting of eight inter cropping systems and five sole crops of main and inter crops. The experiment was laid out in Randomized Complete Block Design (RCBD) with three replications. French bean inter cropped with baby corn in 1:1 and 2:2 row proportions produced significantly higher baby corn equivalent yield of 16.67 and 16.97 t ha<sup>-1</sup>, respectively. The net returns (Rs 1,17,320 and Rs 1,18,080 ha<sup>-1</sup>, respectively) and B:C ratio (3.83 and 3.85) were also high with these inter cropping systems.

Nataraj, D., Murthy, K.N. Kalyana, Sunil, C.M. and Madhukumar, V. (2011). Economics of baby corn cultivation under sole and intercropped situation with leguminous vegetables. *Internat. J. agric. Sci.*, 7(2): 404-406.

**Key words :** Intercrops, Equivalent yield, Babycorn, Net returns

### INTRODUCTION

Maize (*Zea mays* L.) is the third important food crop next to rice and wheat. It has tremendous yield potential and there is no such cereal that has so much immense potentiality. Hence, maize is popularly called as king of crops and it has been cultivated for grain and fodder purpose. Its importance as vegetable is little known to the Indian farmers in spite of the fact that it fetches very lucrative price in national and international markets. Thailand and china are the world leaders in baby corn production. Baby corn cultivation is now picking up in some states of India (Ramachandrappa *et al.*, 2004).

Productivity of maize is highest in Karnataka and the maize area is increasing under rain-fed conditions. Whenever exclusive fodder maize is grown, baby corn can be a potential alternative owing to its dual use for vegetable and fodder (Sahu, 2003). Depending upon agro-climatic conditions 3 to 4 crops of baby corn can be taken up in a year with good profit. Besides, it produces higher fodder yield per unit area. The increase in production of baby corn is necessary to meet the demand of vegetables for the burgeoning population. Yield maximization per unit area and time is the possible answer to the fulfillment of vegetable requirement.

### MATERIALS AND METHODS

Field experiments were conducted at Agriculture College, V.C. Farm, Mandya (Karnataka) during *Rabi*,

2007 with an objective to identify suitable legume vegetables as inter crops with newly introduced baby corn for vegetable purpose and also to review the increased income to the farmer through intensive cropping and suitable combination of leguminous vegetables to sustain productivity. The experimental site had sandy loam in texture and neutral in reaction (pH 6.73) and nutrient status of low availability nitrogen (199.9 kg ha<sup>-1</sup>), medium in available phosphorus (27.0 kg ha<sup>-1</sup>) and potassium (245.0 kg ha<sup>-1</sup>) with soil organic carbon content of 0.4 %. The total of 13 treatments were laid out in Randomized Complete Block Design and replicated thrice with sole crops of baby corn, vegetables cowpea, cluster bean, French bean and field bean comprising of T<sub>1</sub> to T<sub>5</sub> and the same vegetables introduced in 1:1 and 2:2 row proportions comprising of T<sub>6</sub> to T<sub>13</sub>.

The main crop was baby corn and variety used was Golden baby and the varieties of intercrops were vegetable cowpea; Arka suman, Cluster bean; Pusa Nov-bahar, French bean; Arka komal and Field bean; Hebbal avare. The spacing followed for baby corn was 60 x 30 cm and for 1:1 row intercropping of vegetables the crop was introduced in between the two rows of baby corn and in case of paired rows of intercropping the spacing followed was 90/30 x 30 cm. The fertilizer recommendation was 150:75:40 kg N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O ha<sup>-1</sup>, respectively and it was applied to the base crop of baby corn and nitrogen was applied in split with top dressing at 30 DAS. There was no separate application of fertilizer for intercrops

\* Author for correspondence.