

Socio- economic characteristics influencing productivity of *Mrugbahar* sweet orange in Maharashtra

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ABSTRACT

Attempt has been made to examine the socio-economic characteristics of *murugbahar* sweet orange grower and their effect on productivity of the crop. Investigation was carried out during the year 2007-08. Cross sectional data were collected from fifty sweet orange growers. The results revealed that age of owner was 40.56 years with family size of 8.42 persons and investment on commonly used assets was Rs.23683.70. They showed lower coefficient of variation as compared to other characteristics. Use of bullock pair, milch animal and education level showed higher marginal productivity in sweet orange production. The coefficient of multiple determination (R^2) was 0.547 which indicated 54.70 per cent of variation in the productivity.

INTRODUCTION

Sweet orange (*Citrus sinensis*) is one of the important fruit crops in India. It is highly polyembryonic species of Chinese origin. Sweet orange is fruit of excellence and is having exceptionally good nutritive value. Production technology of sweet orange is considered with use of fertilizer, irrigation, plant protection chemicals and human labour. On one side, these technical factors are important to increase the productivity of sweet orange crop. Similarly, on the other side socio-economic factors are very important in order to affect the productivity of crop. Socio-economic characters play vital role in production of sweet orange. In Nanded district of Maharashtra *Mrugabahar* sweet orange is grown on commercial scale. *Mrugabahar* is treatment of water stretch which is given in the months of April – May to sweet orange garden. Flowering can take place in the month of June-July. Fruit harvesting is done in the month of February-March. Yield per hectare is affected due to socio-economic factors of sweet orange growers. By keeping in view the above aspects, the present study has been undertaken to know socio-economic characters and managements of them in sweet orange production.

METHODOLOGY

Study was conducted in Nanded district

of Maharashtra whereas sweet orange cultivation is on large scale in the cropping pattern. The total sample consisted with 50 *Mrugbahar* sweet orange cultivators spread over ten villages of Nanded tehsil. From each of the villages, five *Mrugbahar* sweet orange gardens were selected. Cross sectional data were collected from the sampled sweet orange growers by personal interview method with the help of pre-tested schedule. Data pertained to the year 2007-08 in regard to socio-economic characteristics. Socio-economic characteristics of sweet orange growers were analyzed by application of tabular analysis as well as linear functional analysis.

The form of liner function was as follows.

$$Y = f(x_1, x_2, x_3, x_4, \dots, x_n)$$

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + \dots + b_n x_n$$

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_6 x_6 + b_7 x_7 + b_8 x_8$$

where, Y= Yield per hectare in quintals, a= Intercept of production function, bi = partial regression coefficients of the respective resource variable (i = 1,2,3,.....8), X_1 = Age in year, X_2 = Education level in five quantum scores, X_3 = Family size in persons, X_4 = Occupation level in three quantum scores, X_5 = Land holding in hectares, X_6 = Milch animal in number, X_7 = Capital investment on the commonly used assets in Rs., X_8 = Investment on irrigation structure in Rs.

Key words :

Sweet orange,
Mrugbahar,
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