

Resource productivity and resource use efficiency in mogra flower production in Nanded district of Maharashtra

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ABSTRACT

Mogra (*Jasminum sambac*) is popular species of jasmine flower. The study was carried out for the year 1999-2000, in order to study the marginal productivity and economic efficiency, in Nanded district of Maharashtra. Results revealed that regression coefficient of area of mogra (0.42) and nitrogen (0.40) were highly significant at 1 per cent level of significance. Thus, it was inferred that these resources were under utilized and there was scope to increase them in mogra production. On other hand regression coefficient of human labour (0.40) and phosphorus (0.05) were positive but non-significant. The value of R^2 was 0.94 and 'F' value was highly significant (69.23). The sum of regression coefficients was found to be 1.08 which was indicating increasing return to scale. Thus, it was observed that use of variable inputs can add to mogra production.

INTRODUCTION

Floriculture is a science which deals with the cultivation of flowers and other ornamental plants. In India, flowers are used for adornment by women, offered in religious ceremonies and used for making garland on religious and social occasions. They are also used as raw material in industry to extract essential oils to be used in perfumes, cosmetics, pharmaceuticals and confectionaries and also for producing certain edible products like gulkand, rose oil and rose syrup. In the country, abundant sunshine, plenty of land, availability of cheap and skilled manpower are our strength for cultivation of varieties of flowers. In Maharashtra, favourable climatic conditions, availability of transport and good demand for flowers provide an ideal situation for flower cultivation. Nanded is the industrially developed city. Hence, Nanded district has been selected for present study to determine resource use efficiency and marginal productivity.

METHODOLOGY

Multistage sampling technique was used to select district, tehsil and villages. In the first stage, Nanded district was selected purposively. In the second stage, on the basis of the higher area under mogra flower, Mudkhed tehsil was selected for present study. In the third stage, ten villages were selected

from tehsil on the basis of their highest area under mogra flower crop. In the fourth stage, from each village list of mogra flower growers with area of mogra flower crop was obtained. Obviously ten flower growers were selected from each of the villages. Thus, thirty mogra growers were selected for the investigation. Cross sectional data were collected from thirty mogra growers by personal interview method with the help of pre-tested schedule. Data pertained to production of mogra from each flower grower and use of resources namely area under mogra garden, labour, bullock labour, nitrogen, phosphorus, potash, manure, pesticide and irrigation for the year 1999-2000 with the help of correlation matrix of the above variables, independent variables which were significant with respect to dependent variables were taken into consideration. Thus, these independent variables were included in both the linear and Cobb-Douglas functions. Cobb-Douglas production function was found to be the best fit to the data to estimate the resource productivity, resource use efficiency and optimum resource allocation (Ahuja, 1995). The fitted equation was in the following manner,

$$Y = aX_1^{b_1} X_2^{b_2} X_3^{b_3} X_4^{b_4} X_5^{b_5} X_6^{b_6} X_7^{b_7} X_8^{b_8} X_9^{b_9}$$

where,

Y = yield of flower in quintal per garden
a = Intercept, b_i = regression coefficient

Key words :

Mogra, *Jasminum sambac*, Marginal productivity, Regression coefficient, Resource use efficiency

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