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Research Paper

Resource use efficiency in organic and inorganic cashew production

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ABSTRACT : From the production function analysis it was revealed that, in case of inorganic cashew orchard the elasticity coefficient for area(X_1) was positive and found statistically significant at 1 per cent level of probability. Whereas, the elasticity coefficients for K(X_7) and N(X_5) were positive and found statistically significant at 5 per cent and 10 per cent level of probability, respectively The value of coefficient of multiple determination (R^2) was 0.972 indicating that 97.20 per cent variation in cashew production was explained by variables included in the function. The return to scale was found constant (Σbi=1.003). In case of organic cashew orchard, the elasticity coefficient for area(X_1) was positive and found statistically significant at 1 per cent level of probability. The value of coefficient of multiple determination (R^2) was 0.934 indicating that 93.40 per cent variation in cashew production was explained by variables included in the function. The applied 't' test indicated that the value of Σbi (1.306) was significant at 5 per cent level. It showed that increasing returns to scale have prevailed in organic cashew orchard. Allocative resource use efficiency across inorganic and organic cashew orchards of cashew revealed that cashew growers have to be given adequate technical knowledge for resource management and proper use of resources mainly critical inputs.

KEY WORDS : Cashew production, Physical input use, Resource use efficiency, Allocative efficiency

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INTRODUCTION

There are two aspects of cashew nut cultivation *viz.,* organic and inorganic. Now a days, to promote export of cashew kernels and to protect the environment, soil fertility and soil health organic cashew nut cultivation practices are gaining more importance than inorganic cashew nut cultivation practices. Mostly cashew nut is grown under organic farming system with partial utilization of naturally decomposed material.

Organic farming describes three major aspects :

– Substitution of chemical fertilizers by organic manures and organic materials.

– Use of biological pest control instead of chemical pesticides.

– Comprehensive management approach to improve soil fertility and sustain productivity.

Eventhogh, the spread of cashewnut cultivation has been quite impressive in the state and concerted efforts are being made to increase the productivity through research. No efforts have been made to study the economic aspects of inorganic and organic cashew production.The present investigation was undertaken with specific objective to estimate the physical the importance, productivity and resource use efficiency and constraints in cashewnut production.

MATERIALS AND METHODS

Sindhudurg district was selected purposively for this study, wherein 200 cashew growers were found to be registered as organic cashew growers from Sawantwadi and Dodamarg Tahsils. From each Tahsil, 25 registered organic cashew were selected randomly. The equivalent number of inorganic cashew growers (using plant protection chemicals, chemical fertilizers, etc.) were selected randomly from the adjoining areas of each Tahsil. Hence, a total sample consisted of 100 cashew growers. The cashew growers were classified into two categories, on