



Research Paper

# Resource elasticity, marginal productivity, resources use efficiency and optimum resource use in wheat production

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**ABSTRACT :** Investigation was carried out during the year 2011-12. About 96 wheat growers were randomly selected from eight villages of Renapur tehsil of Latur district of Maharashtra. Cross sectional data were collected from wheat growers with the help of pre-tested schedule by personal interview method. Data were related to wheat output and inputs like hired human labour, family human labour, bullock labour, machine labour, fertilizer, plant protection and irrigation as resources. Cobb-Douglas production function was fitted to the data. The results revealed that, regression co-efficient of area under wheat was 0.263 followed by that of family human labour (0.182), machine labour (0.143) and irrigation (0.300) which were positively significant at one per cent level. Regression co-efficient of bullock labour, potash and plant protection were found significant at 5 per cent level. On the contrary, the regression co-efficient of hired human labour and nitrogen were negative and non-significant. Marginal product of area under wheat was 7.49 quintals followed by that of machine labour (0.42 q), bullock labour (0.24 q), and family human labour (0.23 q) and so on. MVP to price ratio with respect to area under wheat was 2.89 followed by that of family human labour (2.28), machine labour (1.62), irrigation (1.40), phosphorous (1.36) and so on. Hence, preference might be given to increase area on priority basis in wheat production. Optimum use of area under wheat was found to be 1.50 hectares.

**KEY WORDS :** Wheat, Estimates, Geometric mean, Marginal product, Input price

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