ABSTRACT

The study was undertaken to empirically measure and compare the profitability of different pointed gourd, teasle gourd and potato, and to examine the productivity and resource use. Primary data with respect to vegetable cultivation were collected from 130 vegetables growers from four villages under Mithapuqur thana of Rangpur District during 1997. Time series data on area, production and yield of potato for the period 1983-84 to 1994-95 from various published sources were used for the study. Tabular analysis and multiple regression analysis were employed to achieve the main objectives of the study. The study reveals that per hectare gross margins of pointed gourd, teasle gourd and potato were Tk 55850, 71320 and 33055 respectively on full cost basis. On basis of cash cost, the corresponding amounts were Tk 62072, 79115 and 44537 respectively. Human labour was the highest cost item for producing pointed gourd and teasle gourd, accounting for 30 and 29% of gross cost. In the case of potato cultivation, seed was the highest cost item (Tk 11416/ha) and it constituted about 31% of gross cost. Potato and teasle gourd sequential cropping was found more profitable than potato and pointed gourd intercropping. In functional analysis the efficiency of multiple determination, $R^2$ indicate that 76, 69 and 83% of the variations respectively in pointed gourd, teasle gourd and potato yields 3 years were explained by the independent variables. Functional analysis shows that the resources were not used efficiently, these were either underutilized or overutilized. The estimated elasticity of production demonstrates that the vegetable growers allocated their resources in the rational stage of production (stage II). The ratios of MVP and MFC for human labour, seed, manure, fertilizer and insecticide were greater than one and positive indicating that there were scope for pointed gourd, teasle gourd and potato growers to increase output (yield) by using more of these inputs. The farmers ranked higher price of fertilizer and insecticides, lack of capital, low price of vegetable, insufficient institutional credit, non-availability of quality seed, attack of pest and diseases, inadequate extension services, etc. were the major problems encountered in vegetable cultivation. The study emphasizes the need for solving the identified problems to ensure an increase in pointed gourd, teasle gourd and potato production, and to increase its profitability. Measures should taken to ensure adequate and timely availability of various production inputs. It is suggested that the extension services, vegetable marketing network and credit supports should be strengthened in order to increase the production of pointed gourd, teasle gourd and potato at the study area.