The purpose of this study is to analyze the relationship between farm size and productivity and its various correlates like total and partial factor productivity, cropping intensity, gross margins, on and off farm incomes, credit availability with reference to different farm sizes in the irrigated perennial areas of district Gujrat and Mandi Bahauddin. To achieve the objectives, 213 respondents were randomly selected and interviewed. Cobb-Douglas production function was employed to observe the productivity trends using various exogenous farm inputs while monetary values of output had been used as endogenous variable in the model. The cropping intensity and study specific total and partial factor productivities were also calculated. Results confirmed the inverse relationship between farm size and productivity, however, this relationship was found weak. Furthermore, cropping intensity, yield and gross margins per hectare were found higher at small farms as compared to larger ones.