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The excess monsoon rain water which otherwise goes waste as runoff from hilly watersheds in Shiwalik region can be stored in small storage reservoirs and utilized for limited irrigation in command areas to stabilise crop yields. The technical and economic feasibility of such a model was demonstrated by the Research Centre, Chandigarh. The trial was conducted for 3 years in the command area of Sukhomajri reservoirs. The treatments included no irrigation (I-0), only one irrigation (I-1) at pre-sowing and two irrigations (I-2) at pre-sowing and 30 days after sowing around CRI stage. During the year 1977-78, irrigation depth was kept only 5 cm as the water was applied through sprinklers but in the subsequent years each irrigation depth was 7.5 cm. In two irrigations treatment, full recommended dose of fertilizer at 100:60:40 kg N, P and K/ha was applied. The results showed that with one pre-sowing irrigation plus 40 kg N and two irrigations plus recommended dose of fertilizer the mean wheat yield increased from 13.0 to 25.9 and 40.8 q/ha which amounts to two and three times increase over control, respectively. The maximum beneficial impact of supplemental irrigation was felt during the drought year of 1979-80 when wheat crop almost failed outside the project area. The data shows that the limited irrigation increased the profile water utilization particularly in a low rainfall year and tended to moderate the effect of drought.