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Effect of moisture regimes and nitrogen levels on production potential water use efficiency and economics of bed planting wheat

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ABSTRACT : An experiment was conducted during winter season of 2004-05 to find out the effect of moisture regimes and nitrogen levels on bed planting wheat on silty loam soil conditions of Faizabad. The results revealed that yield-attributing characters, grain and straw yields maximized with the moisture regimes of 1.0 IW/CPE ratio with 4 cm depth which was comparable with irrigation at 1.0 IW/CPE ratio with 6 cm depth but significantly better over rest of the moisture regimes. Water use efficiency (WUE), nitrogen uptake by wheat, protein content, net return and B:C ratio were maximum with the same moisture regime (1.0 IW/CPE ratio with 4 cm depth). However, consumptive use (CU) was more with irrigation at 1.0 IW/CPE ratio with 6 cm depth. Superimposition of 25% N over recommended dose (120 kg N/ha) maximized the yield attributes, yield and registered maximum nitrogen uptake, CU, WUE, net return and B:C ratio.

Key Words: Bed planting wheat, moisture regimes, fertility levels, yield, protein.