RESEARCH ARTICLE

EFFECT OF CROP ESTABLISHMENT METHOD AND IRRIGATION SCHEDULES ON PRODUCTIVITY AND WATER USE OF WHEAT

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Abstract: A field experiment was conducted during 2014-15and 2015-16 at Meerut, Uttar Pradesh. The grain yield (46.52; 47.63 and 44.01 and 44.88 q ha^{-1}), straw (60.57; 61.55 and 59.94; 102.75 q ha^{-1}) biological yield (107.09; 109.40 and 102.75; 104.82 q ha^{-1}) was and harvest index (43.39; 43.49 and 42.53; 42.77) significantly higher in B_{90-4} and 4 cm irrigation at IW/CPE 0.8 during both the year. Physiological traits, yield attributes and yields were significantly influenced by land configuration and wheat irrigation schedules. In land configuration systems, $B_{90-4}$and 4 cm irrigation at IW/CPE 1.2 displayed significantly higher water use efficiency (2.53; 2.51 and 2.19; 2.18 kg m^{-3}) compared with other treatments. However irrigation schedules × land configurationinteraction was significant for yield attributes grain, straw and biological yield except 1000 grain weight.

Keywords: Land configuration, Irrigation schedules IW/CPE, Water use efficiency

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