

IMPACT OF ZERO-TILLAGE PRACTICE ON SOME OF IMPORTANT MICRO-ARTHROPODS (HEXAPODA: PARAINSECTA: COLLEMBOLA) IN WHEAT OF RICE-WHEAT CROPPING SYSTEM IN WESTERN UTTAR PRADESH

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ABSTRACT : Soil dwelling invertebrates; collembola were sampled 'over the cropping season of wheat in rice-wheat crop rotation until fallow from conventional tillage and zero-tillage. It is hypothesized that the retention of crop residues on soil surface in zero-tillage, favours decomposer and predatory soil fauna as compared to conventional tillage where stubble is buried soon after harvest. Overall population of isotomidae and brachystomellidae were relatively higher in soil under zero tillage plots. Population of micro-arthropods did how much variation throughout the cropping season, where effect of tillage on population of-brachystomellidae was more pronounced at greater depth. Hence, less the disturbance to soil and resulting in good natural ecosystem as reduced tillage practice provide good niche to soil micro-arthropods by providing optimum temperature and moisture.

Key Words : Zero-tillage practice, micro-arthropods, cropping system, Western UP.