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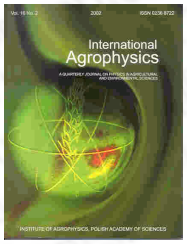

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previous paper back to paper's list next paper

Effect of different tillage systems and straw management on some p properties of soil and on the yield of winter rye in monoculture

(get PDF)

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abstract Field experiments were conducted on Orthic Luvisol derived fro 1999-2002. The tillage systems applied were: conventional tillage (CT) i preplough (10 cm) + harrowing, mouldboard ploughing (25 cm) + harrow conservation tillage (RT) using tillage aggregate consisting of a grubber harrow and string roller; and no-tillage (NT) where the only soil disturba the direct sowing machine. Two straw management systems for the win monoculture were applied on each tillage system: removed straw after retained straw. The straw was furrowed under CT, shallowly incorporate RT and remained as chaff under NT. The physical behaviour of the soil w by soil wetness, bulk density and penetration resistance. Under RT and soil bulk density compared to CT, the water content of the soil was grea rainfall only; later, the reverse was true due to enhanced evaporation. content in the soil and the higher bulk density resulted in increased mec