

Effect of Tillage Technology on Species Composition of Weeds in Monoculture of Maize

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Abstract : The effect of tillage technology of maize on intensity of weed infestation and weed species composition was observed at experimental field. Maize is grown consecutively since 2001. The experimental site is situated at an altitude of 230 m above sea level in the Czech Republic. Variants of tillage technology are CT: plowing - conventional tillage 0.22 m, MT: loosening - disc tillage on the depth of 0.1 - 0.12 m, NT: direct sowing - without tillage. The evaluation of weed infestation was carried out by numerical method in years 2012 and 2013. Within the monitoring were found 20 various species of weeds. Conventional tillage (CT) primarily supports the occurrence of perennial weeds (*Cirsium arvense*, *Convolvulus arvensis*). Late spring species (*Chenopodium album*, *Echinochloa crus-galli*) were more frequently noticed on variants of loosening (MT) and direct sowing (NT). Different tillage causes a significant change of weed species spectrum in maize.

Keywords : weeds, maize, tillage, loosening, direct sowing

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