Weeds control in conventional and transgenic maize with resistance to glyphosate

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Abstract

The researches were conducted in order to observe the behavior of conventional and glyphosate resistant transgenic maize to different weed control methods. In this paper, the obtained results are presented. The study was conducted in experimental years 2007-2008 in the frame of Didactical Station USAMVB Timisoara. In order to conduct this study, 4 variants cultivated with conventional maize DKC 5143 and 8 variants cultivated with transgenic maize DKC-MON88017 with resistance against Diabrotica virgifera virgifera and to glyphosate. The efficacy of weed control methods was assessed, as well the herbicide selectivity to cultivated maize hybrid using EWRS. The weed coverage degree in control plot (V2) was 304 weeds / sqm in the first year and 465 weeds / sqm in the second year. In the variants cultivated with transgenic maize the control was up to 90% much more than control percent achieved in conventional variants. Although, in order to achieve an efficient control (higher than 95%), even to transgenic maize, two glyphosate sequential treatments has to be done. The yield results were positive correlated to the different control methods. However they were affected by climatic conditions.

Key words: maize, conventional hybrids, transgenic hybrids, glyphosate resistance