

Economic Efficiency of Different Weed Control Strategies in Maize

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SUMMARY

Because the corn crop is cultivated on a very wide surface in different pedo-climatic areas, the weed infestation differs very much in the country. Variations are bigger if we observe the ratio of certain weed species towards other, the monocotyledonous species towards the dicotyledonous, the annual towards the perennial etc.; thus, the selection of the right strategy for weed control has to be made in the real local conditions and in the real economic and ecological indicators.

From the considerations that: the characteristic weed flora for corn is variable in the territory; the climatic conditions are variable as well; the herbicide effect can vary (is related to their adequate selection, their application technique and the weather); safety of the agro-ecosystem, animal and human health are also variable (in relation to many natural and anthropic factors, among other things being the right approach of weed control methods in the agriculture crops); the profit of corn crop farmers varies depending on the fact that the technological steps of crop are correctly applied and on the local condition - by these researches, we envisage to clarify certain aspects concerning the efficacy of the pre and post-emergence weed control strategies in corn crop for the high meadow area of Alba County and to setting the minimal elements for research extension.

38 variants of weed control in maize (grouped in 6 distinctly strategies) were tested in 2004-2007 period in a two factorial stationary experiment. Four of the strategies were based on post-emergence weed control methods and two of them – on pre-emergent weed control method. After the weed control strategies effectiveness determination in corn (by EWRS method) and the yield correlation the profit and rate of profit were established. These two economic indicators define the strategies or weed control variants which are recommended for the farmers. The obtained profits vary between 166.8 and 1685.6 lei/ha, and the rate of profit varies between 36.2 and 86.45%.

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