



The influence of some agrotechnical factors on the degree of weed infestation and weed seed stock from soil in the Moldavian Plain

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Investigations on the modification of weeds from crops (weed plants and seeds) were conducted on a cambic chernozem on which were placed long-term stationary experiments with different rotations and soil tillage methods and fertilization. The experiments with different soil tillage systems are in stationary for 26 years and the experiments with different crop rotations and those with fertilizers are on the 39 year of testing.

The results on the amounts of nutrients exported and immobilized by weeds with the biomass represented, according to the applied technologies, between 9 and 20% of the annual necessary of fertilizers for these crops. Under proper technologies, the annual mean amounts of mineral elements exported and immobilized by weeds were, according to fertilization level, between 6 and 20 kg/ha nitrogen and between 1,2 and 2,2 kg/ha P₂O₅.

The herbicide application at seedbed preparation in maize and soybean determined the diminution in weed dry matter by 1600-2547 kg/ha and in nutrient losses, due to the reduction in weed biomass by 32,5-58,6 kg/ha and resulted in getting yield increases of 2750 kg/ha in maize and 1120 kg/ha in soybean. The weed seed stock from soil, their number and biomass increased once with the increase in nitrogen fertilizer rates.