



Effect of herbicide s-metolachlor on soil microorganisms

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The chloroacetanilide herbicide S-metolachlor [2-chloro-N-(2-ethyl-6-methylphenyl)-N-[(1S)-2-methoxy-1-methylethyl]-acetamide] is an important selective product used for the control of several annual grass weeds and certain broad-leaved weeds in soybean (*Glycine max* Merr.). This paper studied the effects of different concentrations S-metolachlor (1.5, 2.1 and 2.7 kg/ha), an enantiomer of metolachlor, on soil microorganism activity (Gram positive bacteria, Gram negative bacteria and micromycetes). Before sowing a control soil sample was collected. At days 7, 14 and 21 after herbicide application, soil sample were collected and analyzed to determine the herbicide effect on the structure of microbial populations. The influence of S-metolachlor on the total number of microorganisms, relationships between the main groups (bacteria and fungi) and the micromycetes spectrum from our experiment were established.