

The Response of Some Algal Flora of Rice Fields to Three Herbicides Applied Either Singly or in Combination at Qalubya, Egypt

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THE STUDY of the effect of three herbicides saturn, stomp and rifit applied singly, in pairs or all together on the algal population of a rice field plot showed different responses of the algal species to these herbicides. Six species tolerated these herbicides when applied singly or in combination. Three species were stimulated by one or more of the herbicides. Combinations showed synergistic or antagonistic effects. Nine species responded negatively to one, two or all three applied herbicides. The inhibitory effect of each herbicides was either synergistic or antagonistic when these herbicides were applied in pairs or all together. Interactions between herbicides are highly important in selecting the proper are to be used for paddies.

Keywords : Rice fields algae, Herbicides and algae, Saturn herbicide, stamp herbicide, Rifit herbicide, Herbicides algae interaction.

Extensive use of herbicides for improving crop yields has led to questions about their effect on soil microorganisms, especially the nitrogen fixing cyanobacteria and particulary in rice fields (Roger and Kulasooriya, 1980, Roger *et al.*, 1986 and Whitton and Roger, 1980). Research on this topic have proved variable responses of soil algae to specific herbicides ranging from stimulatory via tolerance to inhibitory.