



Effect of Flucetosulfuron on Soil Health in Rice Ecosystem

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Abstract: The present investigation was undertaken to study the impact of the herbicide flucetosulfuron, on soil microbial load during *Kharif* (2016) and *Rabi* (2016-17) in Kalliyoor Panchayat (8.4455° N and 76.9918° E at an altitude of 29 m above MSL) Kerala, India. Flucetosulfuron @ 20, 25 and 30 g/ha applied at 2-3, 10-12 and 18-20 days after sowing (DAS) along with two control treatments viz., hand weeding at 20 and 40 DAS and unweeded control comprised the treatments. Microbial count was taken 6 days after spraying the herbicide, using serial dilution technique. The application of herbicides increased the microbial population in herbicide treated plots which may be because herbicides act as carbon source for these microorganisms. No significant variation in the microbial population was observed among the herbicidal treatments and was significantly lower in unweeded control. This indicate that flucetosulfuron is safe to the environment providing healthy and conducive environment for the microorganisms and the bioindicators of soil quality and health.

Keywords: Earthworms, Flucetosulfuron, New generation herbicides, Soil health, Soil microorganisms
