

Assessment of Environmental Impact of Selected Herbicides Used in Rice Farming in Sri Lanka

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Environmental hazard of pesticides are estimated using Environmental Impact Quotient (EIQ) method. Commonly used 12 herbicides were selected for the assessment of EIQ in order to know what the eco-friendly herbicides to be used. EIQ values were calculated for one hectare using EIQ calculator which is available online at <http://www.nysipm.cornell.edu/EIQCalc>. Among the selected herbicides, *Propanil* 360 g/1 EC showed the highest field use EIQ of 41.2 having the biggest impact. *Ethoxysulfuron* 15% WG had the lowest field use EIQ of 0.1 with the lowest impact. Ecological impact of MCPA 600g/1 SL, MCPA 400g/1 SL and Glyphosate 360g/1 SL was also higher in comparison to other herbicides. *AZ1171 sulfuron* 50% WG, *Bispyribac sodium* 100g/1, *Bispyribac sodium* 20% WP, *Penoxulam* 240g/1 SC, *Cyhalofop-butyl* 100g/1, *Fenoxaprop-ethyl* 75g/1 EW, *Ethoxysulfuron* 15% WG and *Carfentrazone-ethyl* 240g/1 EC have shown lower field use EIQ and therefore they were more environmental friendly herbicides.

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