



Determination of Synergistic, Antagonistic effects of Pesticides and Co-toxicity Co-efficient

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Abstract: The interactions of the pesticides were analysed by co-toxicity coefficients and through the plotting of isobologram of the LD₅₀ values. The co-toxicity of imidacloprid + atrazine ratios of 1:1 and 10:1 showed synergistic effects having the co-toxicity coefficient values of 122, 104 and 107, 116 for 6 and 24 hours, respectively whereas the 1:10 ratio showed antagonistic effects having co-toxicity coefficient values of 25 and 28 for 6 and 24 hours, respectively. The toxicity of imidacloprid + nicotine ratios of 1:1 showed synergistic effect with co-toxicity coefficient value of 136 for 6 hour, whereas 1:10 and 10:1 showed antagonism having co-toxicity coefficient values of 96 and 78 for the same 6h. In 24 hours, there were variations for 1:1 and 10:1 ratios showed antagonistic effect with co-toxicity coefficients of 66 and 57 respectively. The changes were in 10:1 ratio, which changed from being antagonism in 6 hour to synergism in 24h with co-toxicity coefficient of 111.

Keywords: Synergistic, Antagonistic, Pesticides, Co- toxicity
