Residual efficacy of insect growth regulators pyriproxyfen, triflumuron and s-methoprene against Aedes aegypti (L.) in plastic containers in the field

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The efficacy of three insect growth regulators, pyriproxyfen (Sumilarv 0.5G), triflumuron (Starycide SC480) and s-methoprene (Altosid liquid larvicide), was evaluated for residual activity against the dengue vector, A. aegypti, in plastic containers placed outdoors. At 1.0 and 5.0 mg/litre concentrations, when exposed for four months under natural condition, pyriproxyfen showed complete inhibition of adult emergence during 22-28 and 36-42 days, respectively, which declined to 90% emergence inhibition during 43-49 and 64-70 days posttreatment, respectively. At similar concentrations, triflumuron caused complete inhibition of adult emergence during 29-35 and 50-56 days, respectively, which declined to 90% emergence inhibition during 64-70 and 99-105 days posttreatment, respectively. At 1.0 and 5.0 mg/litre concentrations, S-methoprene caused complete inhibition of adult emergence during 22-28 and 29-35 days, respectively. At 5.0 mg/litre concentration, S-methoprene caused 84% emergence inhibition during 57-63 days posttreatment. In controls, the range of adult emergence varied between 79-100% during the study period.