LARVICIDAL ACTIVITY OF NEONICOTINOIDS AND PYRETHROIDS AGAINST MOSQUITOES

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Abstract Comparative acute mosquito larvicidal activity of neonicotinoids in different formulations: acetamiprid (Mospilan, Aspid), imidacloprid (Confidor, Shanfidor), thiacloprid (Calipso), thiamethoxam (Actara, Agita) and pyrethroids: cypermethrin (Cifox), permethrin (Medifox — super) was studied in laboratory. Late 2-th instar of mosquitoes Aedes aegypti and method of World Health Organization were used in the all studies. Field trials were carried out in Astrakhan region against larvae of Culex pipiens pipiens and Cx. pipiens molestus. All studies neonicotinoids independently of active ingredient and formulation have demonstrated moderate larvicidal activity: LC$_{50}$ was changed in limits 0.10 — 0.37 mg/l. The formulation of pyrethroids were more activity, that activity of neonicotinoids (LC$_{50}$ of Cifox — 9.8 * 10$^{-4}$and of Medifox — super — 2.6 * 10$^{-3}$ mg/l).