

INFLUENCE OF PYRIPROXYFEN ON PREIMAGINAL STAGES OF *MUSCA DOMESTICA* AND *AEDES AEGYPTI*

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Pyriproxyfen, a synthetic analogue of the juvenile hormone of insects, has been used in the form of 0.5% granules (Sumilarv, Sumitomo, Japan) against preimaginal stages of house flies and mosquitoes for suppressing their quality. As the main condition of the experiment was to use strictly equalized ages of biological materials, not older than 3-5 hours after molting, we used the stage 'last larva-prepupa'.

It was determined that in the presence of 10, 20, and 40 grams of preparation per square meter of surface the number of fly puparia was 62.2%, 50%, and 38.7%, respectively. An emergence of adults was 0.5% in the case of 10 g per square meter, and it was completely absent in the latter cases. It is necessary to note that the presence of 10 g per square meter all emerged adults had damaged wings (twisted, different in size, or slightly torn). Though in the presence of 20 and 40 g per square meter no adults emerged. The part of their pupa were darkly colored and obvious breaches were observed among pupated larvae: elongate intermediate larval-pupal specimens have appeared.

In the presence of 5 g per square meter in the experiments with mosquitoes (during 40 days) 32.6% alive pupae and 67.4% anomalous ones were observed. The emergence of adults was 7.6% (the part of them couldn't remove the exuviae or fly from the water surface). In the case of application of 10 g of preparation per square meter the number of alive pupae was not more than 4.7% and adult emergence was absent. In the presence of 20 grams alive pupae were also absent.

Comparative estimation of the activity of pyriproxyfen (Sumilarv 0.5%G) with methoprene (Altosid 10F) and diflubenzuron (Dimilin 25WP) has demonstrated the first preparation was 2-5 times more active than two others. The obtained experimental results have been confirmed in the field conditions. The effect of suppression after the treatment of dung in the farm and other places of flies emergence remained during more than 1.5 months.

After the treatment of reservoirs without fish-breeding importance (stagnant water, capacities for water collection) inhabited by larvae of mosquitoes of the genus *Culex*, the efficiency of the preparations remained to 90 days.

Sumilarv 0.5%G was used together with traditional insecticides in the system of combined suppression of the flies and mosquitoes in practical conditions.