

INVESTIGATION OF BIOLOGICAL PARAMETERS AND RESISTANCE LEVEL OF NATURAL POPULATIONS OF *MUSCA DOMESTICA* (L). FROM MOSCOW AND PSKOV REGION

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In 1996-98 years natural populations of houseflies *Musca domestica* (L.) Jal, Kovalevka (Pskov region), Tverskaya, TEC-26, Rassvet and Krylatskoe (Moscow) were investigated.

Populations from Pskov region showed high resistance to trichlorphon and tolerance to pyrethroids. Moscow populations were high resistant to trichlorphon and to pyrethroids with different chemical structure (permethrin, cypermethrin and others) and tolerant to DDVP.

Populations, that were high resistant to pyrethroids showed high monooxygenase (MO) activity. Topical application method with using piperonyl butoxide (PB) was employed to determine contribution of MO to resistance mechanism.

The fecundity of females from Pskov populations was higher than S-strain (Cooper). The fertility of eggs Tverskaya, TEC-26 and Rassvet populations was lower than S-strain, and vitality of pupae all investigating urban populations also lower than S-strain (Table). The copulation period of urban populations was longer than ones from S-strain.

Populations	Fecundity Egg/female	Eggs fertility Larvae, %	Pupae vitality Imagoes, %
Jal	83.0±4.2	85.2±3.8	40.0±3.0
Kovalevka	83.0±3.8	72.2±7.2	50.0±2.5
Cooper	61.0±2.5	89.2±5.9	50.0±2.5
Tverskaya	101.0±11.5	46.5±3.3	44.5±4.0
Cooper	102.0±10.2	63.9±3.0	59.5±7.0
Krylatskoe	97.3±9.3	92.2±2.2	53.5±9.0
Cooper	102.0±10.2	89.7±7.2	59.5±7.0
TEC-26	100.0±7.8	59.1±3.2	48.5±9.5
Rassvet	104.0±8.3	83.9±1.9	54.5±9.0
Cooper	102.0±10.2	96.6±1.5	59.5±7.0