



P53 : INSECTICIDE RESISTANCE STATUS IN TURKEY

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The widespread use of insecticides to combat harmful insects in recent years has led to acquired resistance to these chemicals. While this situation leads to significant crop losses in agriculture, it reduces the success in combating insects such as flies and mosquitoes, which are the carrier of pathogens. This micro-evolution in insecticide resistance leads to more chemical use in each year per unit field. This raises serious ecological problems such as environmental pollution and negative impacts on non-target species.

In 2004, in a study conducted in house fly populations that collected from Turkey's 11 different locations, resistance to Diazinon and Methyl parathion researched and found to be the most resistant group of Denizli and Antakya populations.

In Antalya greenhouse vegetable production areas in 2006, considerable resistance was determined against Amitraz in some populations of *Tetranychus urticae*.

In a master thesis study conducted in 2013 in Aydın, resistance to insecticides used for tomato moth *Tuta absoluta* populations was found.

In a study conducted in 2013 in apple orchards in Isparta region, an increasing resistance were identified against Spirodiclofen, Hexythiazox, Etoxazol in the *Neoseiulus californicus* populations. Yet another study conducted in 2014 in the same area in *Panonychus ulmi* populations, increasing resistance against the Bifenthrin, Abamectin, Chlorpyrifos ethyl has been identified.

A study published in 2014 showed that increased insecticide resistance to Malathion and Propoxur in 6 different *Anopheles maculipennis* populations collected from different regions of Turkey.

In a study in 2015 in Manisa, it was determined that the bunch moth populations started to develop resistance against Chlorpyrifos-Ethyl, Deltamethrin, İndoxacarb, Spinosad drugs.

As a result, although there is resistance to various insecticides in our country, the work done in recent years on the subject is limited and there is a need for new researches.

Keywords: Insecticide, Resistance, Turkey