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Oral Presentation

## **P80 : THE SITUATION OF VEHICLE MOUNTED MIST BLOWER DEVICES USED IN PUBLIC HEALTH IN TURKEY**

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One of the methods of controlling adult mosquitoes is "space spray applications". This method is widely used by municipalities (for their visual effect) and the devices (most of them are the copies of original manufacturers) used for these applications are mostly big and not appropriate for the actual aim.

This fieldwork have been running for 4 years to detect the performances of these devices and the droplet characteristics of the spray (size, number, homogeneity in size etc..) that they produce.

This is the first and the only fieldwork which is being done in our Turkey. Standards of WHO and EPA are used along with US Army "biology and vector control unit" methods. It is also compatible with the procedures of 2010/9.

67 mist blower devices with 5 different brands and models have been tested. 171 separate tests results gave us average droplet sizes in; VMD50 = 108,98 micron meter, VMD90 = 172,93 micron meter and VMD10 =52,94 micron meter.

It is clearly understood that the devices which claimed to be "appropriate for the ULV applications against adult mosquitoes" are producing big droplets that fall down quickly because of their weight.

It is seen during the tests that, some problems arise like back pressure, heating, discharge below standards happen when we tried to reach a droplet size of 50 micron meter (especially to about VMD50 = 25 micron meter). Current situation is; leading the applicators to spray to people and to other non target organisms excess amount of toxic material and causing phytotoxic effects on some plants as well as facing difficulties in controlling the target vector.

The said devices should be suitable for their own usage purposes and they should be technically capable of WHO criteria. Maintenance and calibrations of these machines should be done on regular basis.

**Keywords:** droplet, mist blower, test, ULV