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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

WS/T 692-2020

**Vector density monitoring method
(English Translation)**

Issued on: August 17, 2020

Implemented on: February 1, 2021

Issued by: National Health Commission

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Drafting organizations of this standard. Beijing Municipal Center for Disease Control and Prevention, Chinese Center for Disease Control and Prevention, Chinese Academy of Military Sciences Institute of Microbiology and Epidemiology, Academy of Military Medicine.

1 Scope

This standard specifies methods for monitoring the density of bed bugs, including visual inspection and stick trapping.

This standard applies to indoor bed bug density monitoring, and the bed bug density monitoring in vehicles (sleepers) can be implemented by reference.

2 Terms and definitions

The following terms and definitions apply to this document.

Bed bug

Bed bugs are insects of the genus Cimidae of the Insecta Hemiptera. They are incompletely metamorphic insects with three stages. egg, nymph and adult. To human property the most harmful species are temperate bed bugs and tropical bed bugs.

Effective glue board Sticky paper to bed bugs, or undamaged, unmoved and not sticking to bed bugs.

Signs of bed bug

The corpse, molting, eggs, feces of bed bugs, etc.

3.1.1 Appliances

Flashlight, magnifying glass, tweezers, dissecting needle, ziplock bag.

3.1.2 Operation method

In the monitoring room, select places where bed bugs inhabit, such as bed boards, mattresses (including holes, holes, and seams on them), bed frames, bed heads, Drawers and other gaps and furniture joints, sofas, and furniture and pores around sofas and beds. Illuminate with a flashlight, use a magnifying glass, tweezers, Dissecting needles and other tools, using direct visual inspection, tapping and other inspection methods to check and record the number of bed bugs caught in each place and the bed bugs found trace. A single room with an inspection area less than 15 m² is counted as one room, and a room larger than 15 m² is counted as one room with 15 m². Monitoring record table see

Table A.1 in Appendix A.

3.1.3.1.1 Infringement rate

Calculate the bed bug infestation rate according to formula (1).

3.1.3.1.2 Density

Calculate the bed bug density according to formula (2).

3.1.3.1.3 Density index

Calculate the bed bug density index according to formula (3).

3.1.3.2 Bed bug trace density calculation

Calculate the positive rate of bed bug traces according to formula (4).

3.2.1 Appliances

Sticky Worm (cockroach) paper. The glue surface specification is 170 mmx100 mm.

3.2.2 Operation steps

During the monitoring period, there should be people living normally in the monitoring room, and the bed bug stickers should be placed in places where bed bugs often inhabit and move, such as beds, Around sofas, furniture, etc., the bed and sofa should be placed on the four corners that are in contact with the ground, and the number of sticky papers in each room According to the specific choice of the furniture in the room. Leave the bed bug sticker for 7 days. Record the species and number of bed bugs caught, see Table A.2. for the monitoring record form.

3.2.3 Presentation of results

According to formula (5), formula (6), formula (7) and formula (8), respectively calculate the sticking catch rate, infringement rate, density and density index.

Appendix A

(Informative appendix) Monitoring record sheet Tables A.1 to A.2 give the record sheets suitable for bed bug density monitoring.

Table A.1 Density monitoring record table (visual method)