# Table of Results

Study: BIO2019-057

BioGenius GmbH, BiologyStudy no.: BIO2019-057TechnologiePark, Campus 1Report no: BIO092-19Friedrich-Ebert-Straße 75Date: 2019-08-1951429 Bergisch Gladbach, GermanyStudy Director: L. Werner

Table 1 <u>Efficacy of bed bugs traps against Bed bugs, Cimex lectularius</u>

3 replicates 30 individuals per arena

Method: Sticky Traps		oo marvidadio per arena		rel. hum.: 57 - 64 %	
		% caught arthropods after hours (h) (standard deviation)			
Replicate	Product	12h	24h	72 h	168 h
1	"Domobios linear trap"	33	33	43	43
	" Pièges à punaises de lit"	0	0	0	0
2	"Domobios linear trap"	30	33	33	40
	" Pièges à punaises de lit"	3	3	3	3
3	"Domobios linear trap"	50	53	53	63
	" Pièges à punaises de lit"	0	0	0	0
Ø	"Domobios linear trap"	38 (± 11)	40 (± 12)	43 (± 10)	49 (± 13)
	" Pièges à punaises de lit"	1 (± 2)	1 (± 2)	1 (± 2)	1 (± 2)

Note: All means are rounded to integers

24 - 25 °C

temp:

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## **Graphical presentation of the results:**

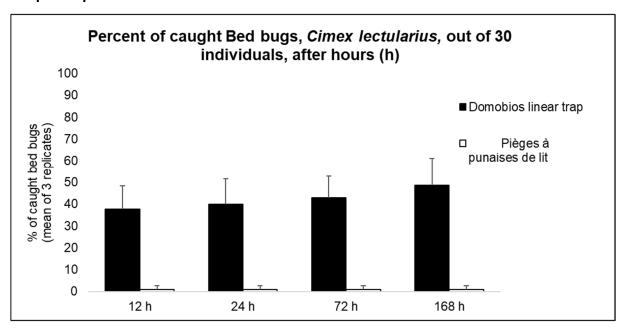


Figure 2. Graphic of the results with standard deviation after 12, 24, 72 and 168 hours

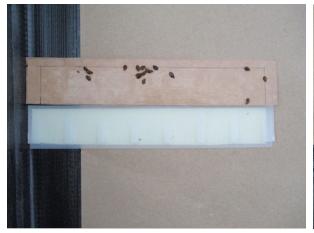
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#### Pictures:

**Figure 3.** Exemplarily picture of the test-set-up





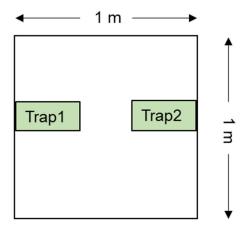
**Figure 4.** "Domobios linear trap" (left) and "Pièges à punaises de lit" (right) with caught Bed bugs, *Cimex lectularius*.

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### **Test Methodology**

Experiments are conducted in plastic arenas (1 x 1 meter). The vertical walls of each arena are coated with talcum (to prevent arthropods from escaping). The floor of each arena is lined with brownish paper. No shelter is provided.



**Figure 1.** Exemplarily diagram of arena set up with the relative position of introduced traps.

Temperature is 24° – 25 °C and relative humidity is 57 - 64 %.

30 Bed bugs,  $Cimex\ lectularius$ , (10 males, 10 females and 10 nymphs ( $4^{th} - 5^{th}\ instar$ )), are introduced into the arena. Simultaneously, both traps are placed equidistant to bed bugs in the same arena as indicated in Fig. 1 (each with contact to side wall of arena). No food and no shelter are provided.

Evaluation is done 12, 24, 72 and 168 hours after placing the traps into the arena.

For evaluation after 12, 24 and 72 hours, the number of caught bed bugs inside the "Pièges à punaises de lit"and the number of loose bed bugs in the arena is noted. A that time, the "Domobios linear trap" is not opened. The number of Bed bugs inside the "Domobios linear trap" is calculated as the difference between the total number of Bed bugs (30) and the number of Bed bugs in the "Pièges à punaises de lit"and loose in the arena. For evaluation after 168 hours, the "Domobios linear trap" is opened.

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Temperature and relative humidity is monitored. To mimic light – dark photoperiod, natural day light and artificial light during hours of work is given during testing.

Three replicates are conducted. The position of the traps is rotated between arenas, to prevent any positional bias. Hereby, it is taken care of that the distance, which the bed bugs have to move to the trap opening is similar for both traps.