

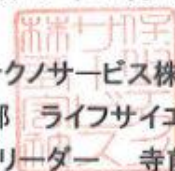
試験成績報告書

防虫ブラシ1点の チャバネゴキブリ成虫に対する防虫効果試験

Test to evaluate
the pest control effectiveness of
one Burr-cut on adult German cockroaches

平成 27 年 8 月 17 日

住化テクノサービス株式会社
応用生物部 ライフサイエンスチーム
チームリーダー 寺前 朋浩



Test to evaluate the pest control effectiveness of one Burrcut on adult German cockroaches

August 6, 2015

Test consigner: Burrtec. Co. Ltd.

Test laboratory: Life Science Team, Applied Biology Unit, Sumika Technoservice Corporation

Test location: Health & Crop Sciences Research Laboratory,
Sumitomo Chemical Co., Ltd.,
2-1, Takatsukasa 4-chome, Takarazuka City, Hyogo, Japan

Investigator: Mr. Kuroda

Test period: July 23-27, 2015

I. Objective

To investigate the pest control effectiveness of one Burrcut on adult German cockroaches.

II. Materials and test method

1. Test specimen: Burrcut, 1pc Burrcut, approx. 10 cm

2. Test insect: Blattellagermanica

Blattellagermanica (German cockroach),
successivly bred by SumikaTechnoservice Corporation

3. Test sections:

10 insects per section (5 female, 5 male), 3 iterations

4. Test method

- ① One Burrcut (width 10 cm) was set in the test apparatus, in which a gap of height 2 cm (refer to diagram) was established.
- ② The Burrcut was put in contact with the floor such that there was as little a gap as possible.
- ③ The ten insects were released in the release section on the right, which was sealed.
- ④ The passage section on the left was open.
- ⑤ The test apparatus was put in a resin container (external dimensions 46 cm x 36 cm x 15 cm), water-soaked absorbent cotton was placed in the container as lure, and the apparatus was maintained at room temperature (approx. 25°C).
- ⑥ The number of insects that had passed through the Burrcut from the release section and the number of insects remaining in the release section were counted 6, 24, and 96 hours after release, and the passage rate was calculated.
- ⑦ The passage rate was calculated by the following formula.
- ⑧ Passage inhibition rate (%) = $100 \times (1 - \text{passage rate of section with brush established} / \text{passage rate of section without brush established})$

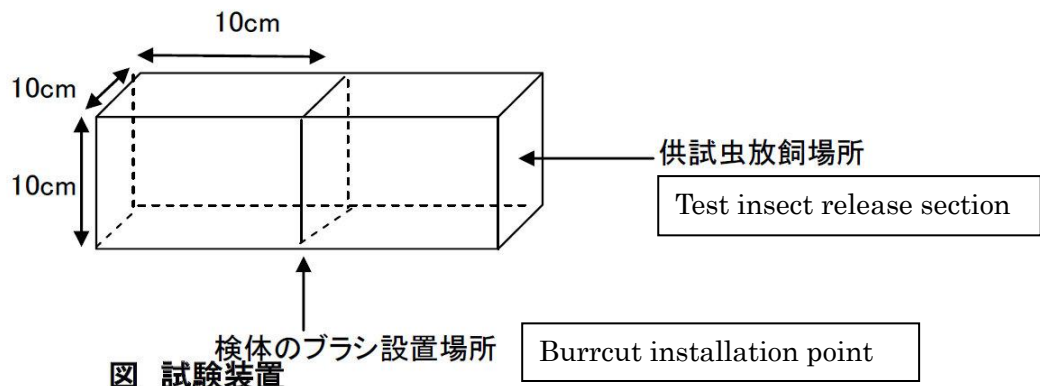


図 試験装置
Fig. Test apparatus



図1 試験容器
Fig. 1 Test container

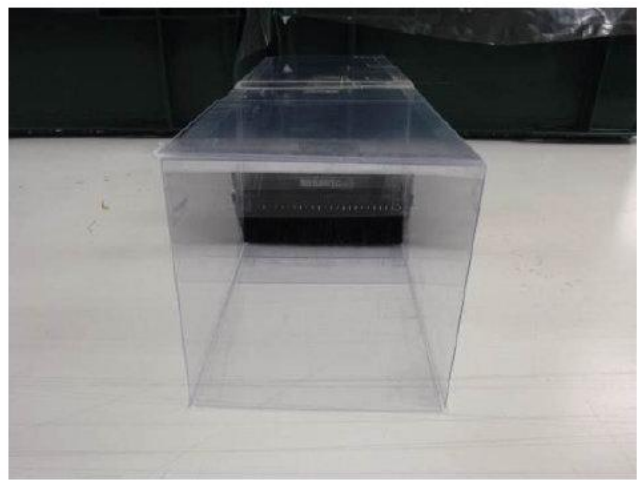


図2 試験検体のブラシ
Fig. 2 Test brush



図3 試験状況
Fig. 3 Test conditions



図4 試験状況
Fig. 4 Test conditions

Test results

Table 1 Pest control effectiveness of Burrkut against German cockroaches

No.	Name	Iteration	No. of insects	6hours later			24hours later			96hours later		
				Passage rate	Average	Passage inhibition rate	Passage rate	Average	Passage inhibition rate	Passage rate	Average	Passage inhibition rate
1	Section with brush established	1	10	0	0	100		3	97	10	13	87
		2	10	0			10			20		
		3	10	0						10		
2	Section without brush established	1	10	50	83	0	90	97	0	100	100	0
		2	10	100			100			100		
		3	10	100			100			100		

July 23-27, 2015

Passage inhibition rate = $100 \times (1 - \text{passage rate of section with brush established} / \text{passage rate of section without brush established})$

IV. Results and Discussion

The passage inhibition rate of the section with Burrkut established 24 and 96 hours after establishment was 100% for German cockroaches.

This indicates that the Burrkut was highly effective in preventing the passage of adult German cockroaches under the conditions of this test.