

Evaluation to the Green Curtain seen from Residents in Temporary House

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(2015年3月20日 受理)

1. Introduction

Most are forced to life in temporary housing by East Japan great earthquake disaster and the nuclear plant accident. Thermal environment of disaster temporary housing is severe and the mental stresses increase, and a lot of healthy damage are reported. Green curtain is

introduced aiming at an improvement of the thermal environment of a temporary house, or mental health (*Photo 1*).

The questionnaire was performed about the evaluation at the time of planting of green curtain, the evaluation during the cultivation period, and the hope of planting next year.



Photo 1 Green curtain by Momordica

2. Method of Survey

Investigation place is Aizuwakamatsu-City, Fukushima, JAPAN. Investigation object hous-



Photo 2 Residents in Temporary House

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Photo 3 Flower planter of each 2 dwelling house

ing is TOBU-KOEN emergency temporary housing (*Photo 2*) and KAWAHIGASHI GAKUEN emergency temporary housing.

I carried out the green curtain planting event for applicants with NPO green curtain project support. It was planted in May 25, 2013. Two planters and net were given to every house (*Photo 3*). The management and the way of enjoying in afterward entrusted a resident.

Table 1 Questionnaire form

緑のカーテン・アンケート			
……………該当箇所にて○で囲んでください……(例)→		はい	どちらでもない
(給付け=成長初期)			
1 緑のカーテンの苗の植え付けは楽しかったですか？		はい	どちらでもない
2 栽培中、成長が楽しみでしたか？		はい	どちらでもない
3 水やりが大変だと感じましたか？		はい	どちらでもない
4 ゴーヤ以外にも何が植えられましたか？		はい	どちらでもない
5 「はい」と回答された方は、どのような植物を植えられましたか？		()
(夏 季)			
6 緑のカーテンによって夏涼しく感じましたか？		はい	どちらでもない
7 室内からの緑のカーテンの風景は好きですか？		はい	どちらでもない
8 収穫して食べましたか？		はい	どちらでもない
9 緑のカーテンを通じてご近所との会話は増えましたか？		はい	どちらでもない
10 緑のカーテンを通じて困ったことはありましたか？		はい	どちらでもない
11 「はい」と回答された方は、どのようなことに困られましたか？			
(今 後)			
12 来年も緑のカーテンを植えてみたいですか？		はい	どちらでもない
今回の緑のカーテンを通じてご意見ご要望がございましたら以下にお書き下さい。			
住戸番書 (-)			
ご協力ありがとうございました。			

It questioned in 2013 and investigation period was done with same year October. The research method was made a mail. Answer period was set in 2 months. Valid response is 64.7 %. The people who answered were 7 in 12 people of TOBU-KOEN emergency temporary housing and 4 in 5 people of KAWAHIGASHI GAKUEN emergency temporary housing.

The attribute of the person who answered of each investigation place is as follows. TOBU-KOEN temporary housing were 5 female and 2 male. KAWAHIGASHI GAKUEN temporary housing were 3 female and 1 male.

Questionnaire contents are as follows. The question form is as *Table 1*.

- ① Was the plantation of the seedling of a green curtain fun?
- ② During cultivation, was growth a pleasure?
- ③ Did you feel that watering was hard?
- ④ How many times is the frequency of watering on the 1 day?
- ⑤ Did you feel that you grew up as expected?
- ⑥ Did you feel it to be cool in the summer by a green curtain?
- ⑦ Was there the effect of the blindfold?
- ⑧ Do you like the scenery of a green curtain from the room?
- ⑨ Did the Momordica gather a harvest and did it eat it?
- ⑩ Did the conversations with the neighborhood increase through a green curtain?
- ⑪ Is there any merit by setting green curtain?
- ⑫ Have you been troubled through a green curtain?
- ⑬ Do you want to set a green curtain next year?

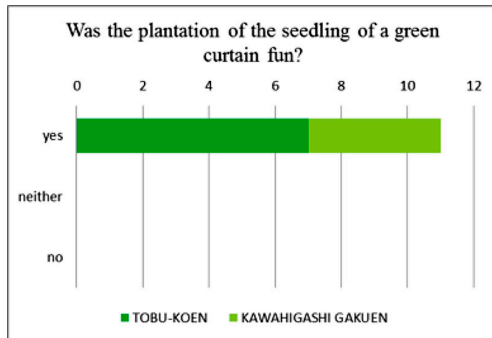


Fig. 1 The value of the planting event

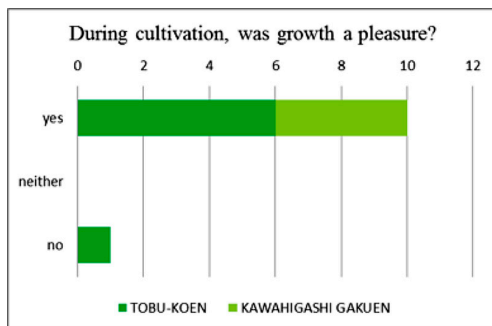


Fig. 2 The evaluation a green curtain is growing

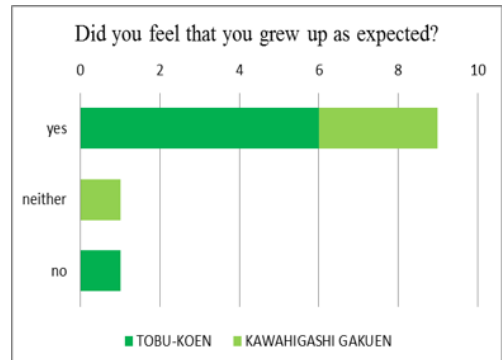


Fig. 3 Expectation about growth of a green curtain

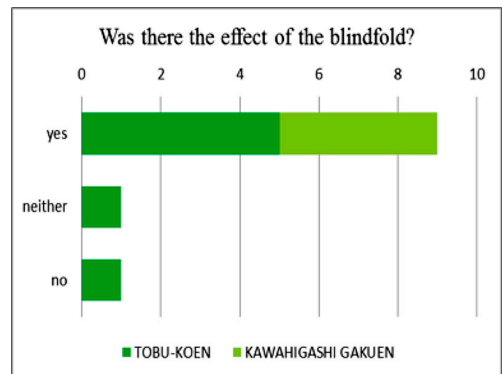


Fig. 4 The effect of the blindfold

3. Survey result

Most persons have replied that planting event was pleasant and the growth cultivation is pleasure (Fig. 1). There were a lot of answers that the cultivation in the period of vegetation is also fun (Fig. 2). And the growth was expected (Fig. 3). The reply that there was the effect of the blindfold was 82 % (Fig. 4). The reply that liked the scenery of a green curtain from the room was 100 % (Fig. 5). The reply of having eaten a Momordica was 82 % (Fig. 6). The reply the conversations with the neighborhood increased, through a green curtain 82 % (Fig. 7). On the other hand, a reply that it has been troubled though green curtain is approximately 60 % (Fig. 8) and the watering has appealed against it having been hard. There were a lot of answers I water twice a day (Table 2). However, the reply of wishing to plant next year was 75 % (Fig. 9), and the continuous introduction is expected.

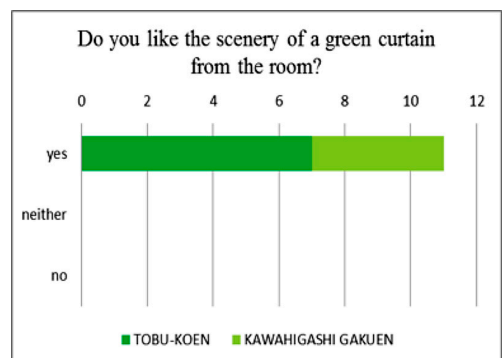


Fig. 5 The value of the landscape of the green curtain

Table 2 The watering number of times to the green curtain

The water supply number of times	TOBU-KOEN	KAWAHIGASHI GAKUEN
3 times per day	0	1 (*)
2 times per day	6 (**)	1
1 times per day	1	2
Unanswered	0	0

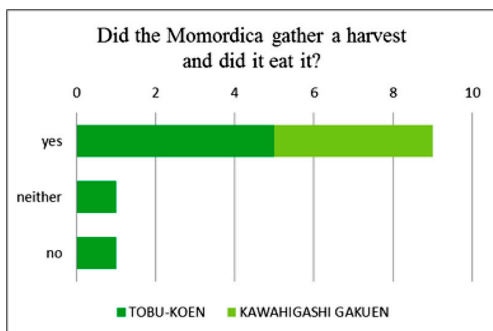


Fig. 6 The situation of the use of a Momordica as edibility

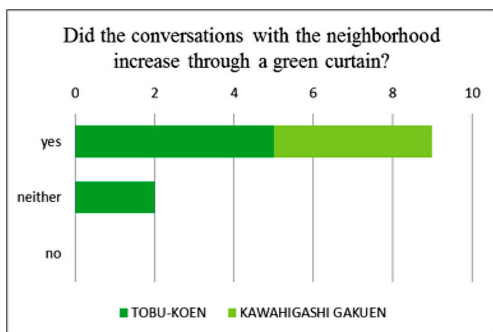


Fig. 7 Green curtain and conversation with neighborhood

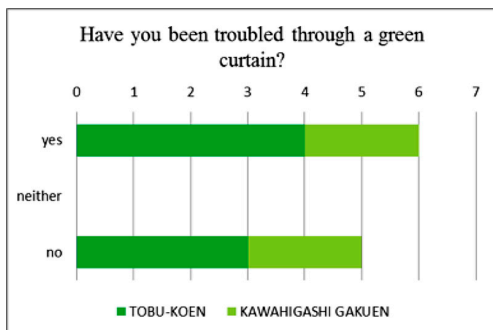


Fig. 8 Green curtain and the situation of the trouble

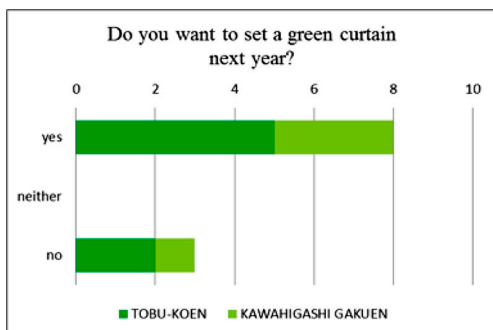


Fig. 9 The next year's request situation to the green curtain

A free answer was shown on the Table 3. There were a lot of answers that watering in summer is serious. But the pleasure of the cultivation and the landscape were liked by a green curtain. It is thought that its green quantity increased since having carried out early in this planting event and cultivation made progress. And the bandage effect increases and considered that liked the scenery of a green curtain.

4. Conclusion

The environment of the temporary housing is inferior. The environment of the intense heat period is severe in particular. A tenant is also hard on a mental by the living. The cool landscape is produced for a green curtain. A tenant

Table 3 Free talking

- It's pleasant for the growth.
- That was a blindfold.
- That's pleasant in an eye and feeling calms down.
- Many Ipomoea bloomed.
- It's pleasant for a fruit grow up big.
- A Ipomoea was prolonged too much. Pruning was burden.
- Work on the root was burden.
- Watering was burden.
- Occurrence of an Aphidoidea would be a problem.
- Last cleaning was burden.
- Removal of a net was burden.
- Many Momordica could be harvested this year. I cooked with a person in neighborhood and ate together.
- Next year, I want to plant a morning glory.
- I am looking forward to the green curtain project.
- Last year Momordica. This year was narrow green. The white Momordica was delicious in thickness.
- It had been also accustomed to cultivation this year, So it wasn't difficult to bring up.
- Indoor became cool by a green curtain. Many Momordica could be harvested and everyone. Was glad to give it.
- A green curtain was obstructive to dry a laundry.

is enjoying the growth and harvesting. And conversation with neighborhood is also increasing through a green curtain. And next year's planting is also expected. With green curtain, the environmental improvement effect, the motivation effect, and the community formation effect were accepted.

Reference

- 1) Kentaro IIJIMA, Hiromi ADACHI, Shiro WAKUI, Yasuhiro Oomori and Kazui YOSHIDA (2013): Evaluation to the Green Curtain seen from Residents in Temporary House, J. Jpn. Soc. Turfgrass Sci 42, Separate volume 1, pp.60–61

