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Approved

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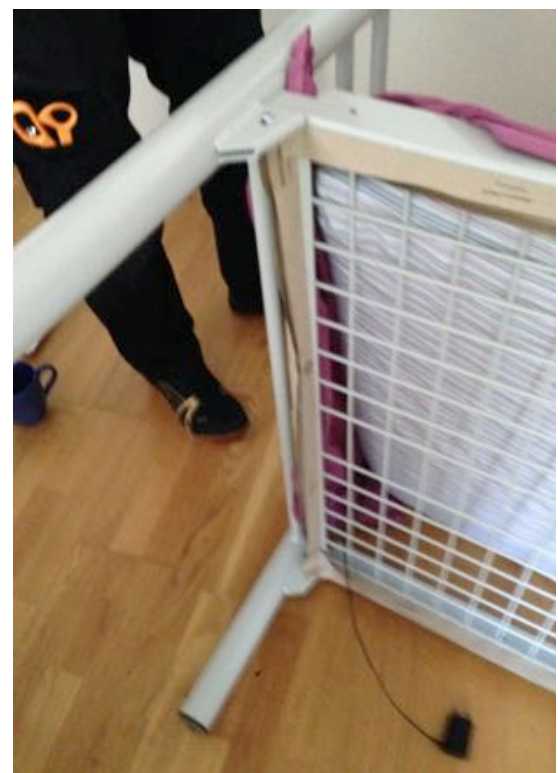
Summary

The following is a review of the procedures and conclusions from the Swedish Immigration Board's pilot project to test Nattaro Safe in 15 apartments in the town of Lindesberg, southern Sweden. A total of 59 apartments were included in the pilot, of which 44 formed the control group and where Nattaro Safe was not installed.

The aim of the pilot was to investigate whether Nattaro Safe has a preventive effect against bed bug infestations. The test was carried out in an apartment block belonging to the Immigration Board authorities and where there is a high turnover of tenants.

In the apartments where Nattaro Safe was installed on the beds no residents were subsequently bothered by bed bugs. The pilot ran for 6 months from February to September 2014, during this period, only one case of bed bugs was reported and confirmed, the pilot was considered to be a success.

In the 44 apartments where Nattaro Safe was not installed, there were between 1 and 4 treatments per apartment, a total of 75 treatments in all against bedbugs!

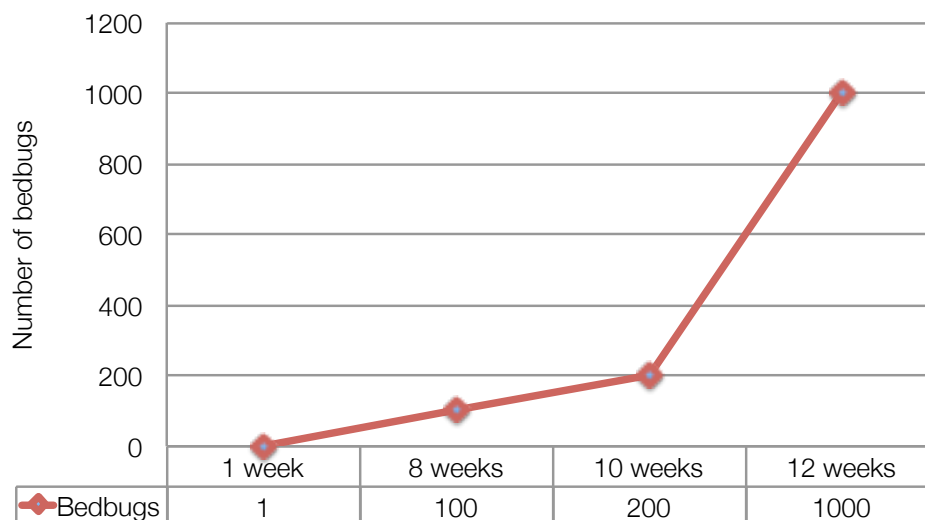




Background and objectives

In December 2013 The Swedish Immigration Board and Nattaro Labs met to discuss the growing problems with bed bugs in their apartments; as the current increase is a cause of great concern for both The Immigration Board and the tenants who live in the apartments. One conclusion of the meeting was that The Immigration Board wished to test Nattaro Safe in a proactive manner to see if we could reduce the number of heavy infestations. The Immigration Board sought to diminish the trauma that bed bugs cause residents', the complaints associated with them and to prevent bed bug infestations from becoming epidemic, i.e. spreading to other flats in the block or other properties.

The growth rate during an infestation



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Figure 1 – Potential growth in population in a room if a single fertilised female bed bug gains access and infests the room. The rate is based on normal room temperature and constant supply of human blood. Nattaro Safe prevents infestations from becoming epidemic, which otherwise occurs after around 10 weeks.



The pilot at Lindesberg started in February when technicians from Nattaro Labs and the property maintenance team installed Nattaro Safe in the first five apartments. Nattaro Safe was fitted in the additional ten apartments by the property maintenance team under the supervision of their PCT. The Project Manager for The Immigration Board has been Mats Friberg. It was agreed that a successful outcome of the pilot be defined as follows:

"If no cases of grade 2 or 3 activity in any apartments where Nattaro Safe was installed on the beds or only a small number of reported cases of grade 1 activity was reported in these apartments, then the pilot would be considered to be a success."

Below is a description of the levels of activity as defined by the pest control industry:

Protocol on the level of activity



Inspection Protocol

- During a visual inspection of a potential bed bug infestation the following classification to measure the degree of activity is used;
- 0 - No visible traces of bed bugs in the bed, just a suspicion because of occasional bite
- 1 – A small number of spots from droppings on the bed frame or other location on the bed
- 2 – Signs of an aggregation, with visible spots of faeces, exuvia, empty shells, blood
- 3 – Clear indications of an aggregate in multiple locations, possibly visual evidence of nymphs / adults
- 4 – Several aggregates within or adjacent to the bed and several visual evidence found

These observations are then collected in a report, which forms the basis for the choice of treatment methods.

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Figure 2 – Definitions of activity level, 0 - 4, when inspecting a bed.

The pilot project included a total of 59 apartments, 15 where Nattaro Safe was installed and 44 where it was not installed on the beds.



About Nattaro Safe

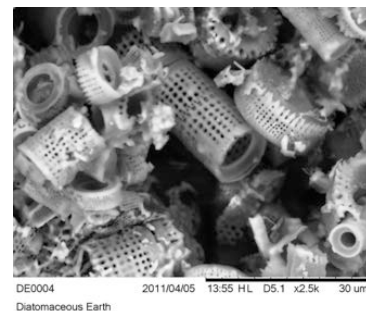
Nattaro Safe is a patented invention manufactured in Sweden. The active ingredient is natural diatomaceous earth; which is an effective, long lasting, non-toxic, mechanical pesticide against bed bugs and other crawling insects. Nattaro Safe is approved for use by the Swedish and Norwegian Chemicals Agency and, due to its unique design can be used in a variety of ways;

- 1) It can be placed very close to the host (us), i.e. it can be installed under and around beds.
- 2) It can be combined with conventional treatment methods, such as loose diatomaceous earth, chemicals, heat and cold to treat severe infestations.
- 3) It can be used proactively to prevent infestations taking hold in high-risk environments, i.e. rooms with high occupant turnover such as hotels, lodgings for asylum seekers, shelters, etc.

Nattaro Safe



- Diatomaceous Earth with 100% efficacy and long-lasting effect
- Usage;
 1. As a complement to conventional methods
 2. Proactive control in risk environments

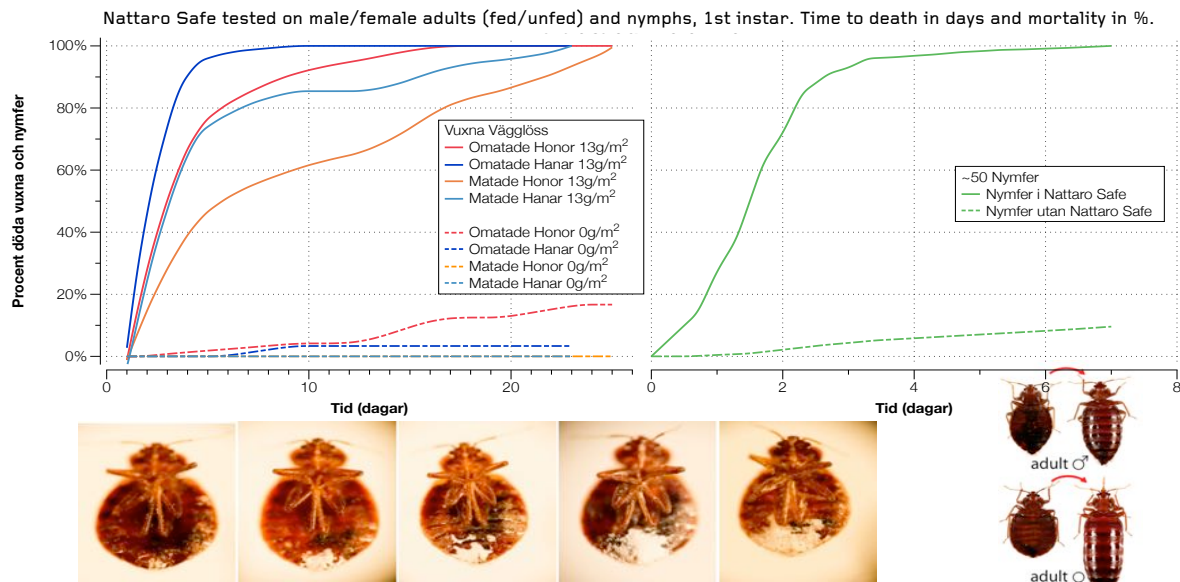


Advantages;

- flexibility in placement and installation
- design; colour, material, the height of the tabs
- always the correct amount; no over or under-dosage
- does not dust

Figure 3 – Product description of Nattaro Safe, including advantages.

Efficiency of Nattaro Safe



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Figure 4— Shows the effectiveness of Nattaro Safe and how quickly the bed bug dies after it has been in contact with the diatomaceous earth/passed through the Nattaro Safe band.

Implementation

In February Nattaro Safe was fitted under the beds in five apartments by researchers from Nattaro Labs together with the maintenance team from the Swedish Migration Board in Lindesberg. Initially the team installed Nattaro Safe on the beds of a total of 10 apartments. In some apartments wooden beds were at the same time replaced with new steel framed beds. Nattaro Safe was subsequently fitted under all the beds in the 15 apartments for the pilot project.

Material

It takes about 6-8 metres of Nattaro Safe per bed. In the first apartment Nattaro Safe was attached to the outside of the bed frame, in all the remaining apartments it was attached to the underside of the bed. In all cases Nattaro Safe was attached around the top of bed legs.



Procedure

The recommended procedure is as follows;

- 1) The technician before installation carries out a visual inspection of the bed.
- 2) If there are no signs of bed bugs Nattaro Safe is attached underneath the bed.
- 3) If bed bugs are confirmed then the area should be treated according to the degree of actual activity (activity level scale from 0-4 with the associated treatment routine).
- 4) Upon completion of any treatment Nattaro Safe is attached underneath the bed.
- 5) At each change of tenant the Immigration Board carries out a visual inspection of the beds to ensure that Nattaro Safe is still properly in place. If broken or damaged it can easily be replaced by the maintenance team.
- 6) Thereafter we recommend that a visual inspection be carried out every 6 months and any damaged material replaced; and that the product be replaced every 12 months.

The proposed approach is illustrated in steps in the figure below:

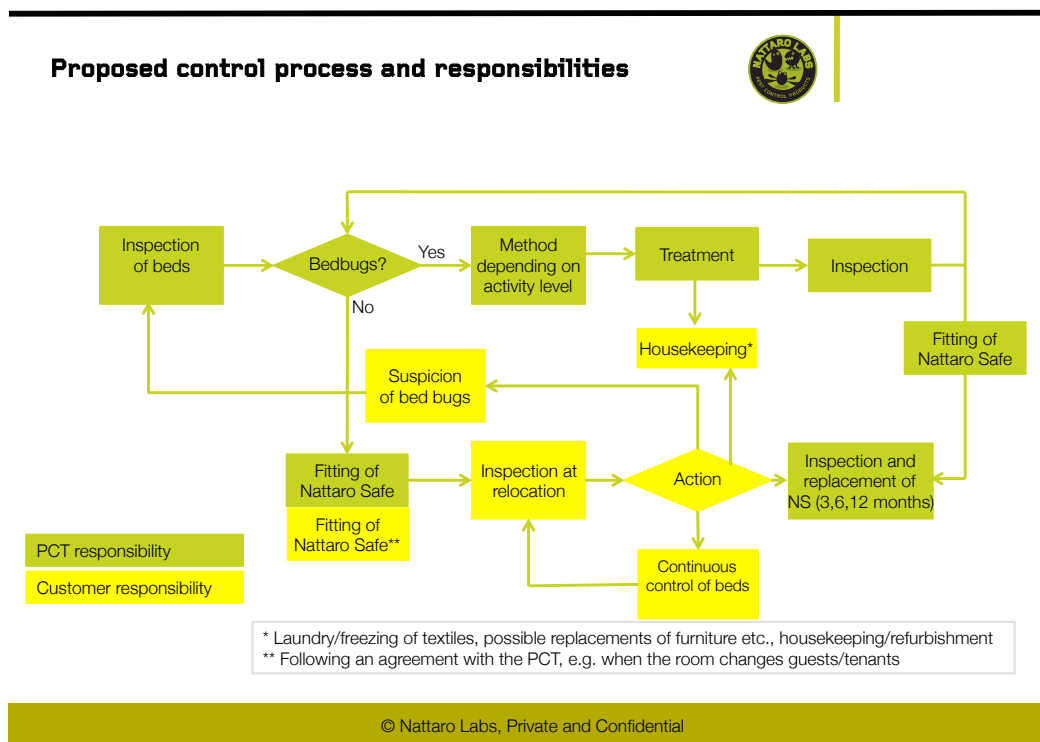


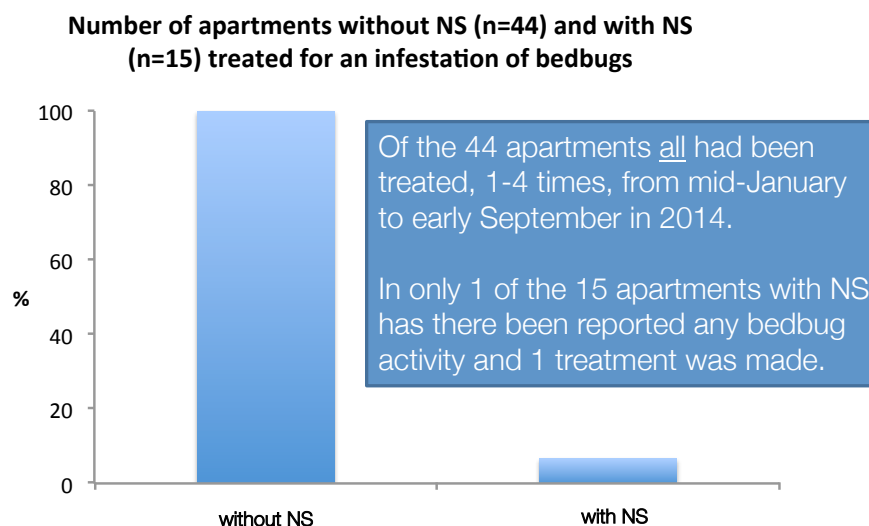
Figure 5 – A description of the process inspection, instillation, and possible infestation. This also shows a possible division of responsibilities between the Pest Control Company and The Immigration Board.



Results

Of the 15 apartments where Nattaro Safe was installed on the beds, only one case of bed bug infestation was confirmed. The other 44 apartments, without Nattaro Safe on the beds, were treated 1 - 4 times/apartment during the same period. In total 75 treatments were made during this period in these apartments (the 44).

Apartments - treated for bedbugs (%) with and without Nattaro Safe (NS). A total of 59 apartments in the Field Test.



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Figure 6– Results of the pilot with Nattaro Safe

Results	Number of apartments	Number of treatments
Without Nattaro Safe	44	75
With Nattaro Safe	15	1*

* Nattaro Safe had been mounted on the outside of the beds in February, the degree of activity of 0.1 and 2, respectively in the beds could be found during the inspection in September. The residents had also recently reported problems.



Conclusions

Overall, we can conclude that the pilot has been successful. There are no active bed bugs in the beds where Nattaro Safe was installed correctly.

In the one apartment where a little activity was measured, 0 on the inspection protocol, it was found that Nattaro Safe had been fitted incorrectly, i.e. on the outside of the bed.

The incorrect installation resulted in the diatomaceous earth being worn away and thus reducing the effectiveness of Nattaro Safe.

We can conclude that it is important to ensure Nattaro Safe is installed properly on the beds and that regular checks are made so that it remains as intended.