Bedbug management and control

Not too long ago, bedbugs were viewed as a pest of the past. Like as not, the current generation of pest controllers, would never have had to treat an infestation - until the current outbreak, that is. Consequently there was no reservoir of practical experience to draw upon, nor any armoury of products readily to hand.

However, pest control is an innovative industry. From a position of virtually no management tools there is now a bedazzling array of bedbug monitors, bedding covers, physical barriers and other such devices. To help our readers work out what’s available Pest has attempted to draw all these items together. Whilst every effort has been made to ensure all relevant products are included, we apologise should any have slipped through the net. This review is followed by a report on a new and relatively unique means of bedbug monitoring – the use of bedbug detection dogs.

Physical barriers

With their nocturnal habits, coupled with the tendency for bedbugs to reside in the bed, bedding or areas surrounding the bed, a variety of physical protective barriers have been developed. None of these actually kill the bugs, but they do offer protection and can serve a useful function as part of an integrated management approach.

Mattress and bedding encasements

The idea behind these products is to prevent the movement of bedbugs – either into an un-infested mattress or, should the mattress already be infested, preventing the bugs from exiting to bite the human sleeping in the bed. The covers are impermeable to the bugs. Mainly brought in from the USA, a whole array is now available. All are brilliant white, meaning any bedbugs or faecal deposits are easily spotted. Each comes with patented zip fastening technology. They are also impermeable to dust mites, mould and bacteria. In addition, they wash like a sheet and dry quickly.

For those travelling away from home, Brandenburg has also introduced SecureSleep travel pillow with encasement, luggage liners and a laundry bag.

Bedbug tape

Bedbug tape comes either in strips or, for larger areas, in rolls. The idea is that it is applied sticky-side uppermost around walls, bed legs or where bedbug activity is suspected. It serves as both a defence (preventing the bugs crawling up a bed leg, for example) and/or as a means of monitoring any activity.

Bedbug tape and strips are both available from Barrettine Environmental Health and Killgerm.

Passive monitors

Passive monitors contain no attractant and rely on the fact that bedbugs like to reside in cracks and crevices close to their host. The monitors are designed to provide an early indication of infestation, or to be used as a monitoring device after treatment.

Each of these monitors contains layers of cardboard like material reminiscent of corrugated cardboard – these provide the potential harbourage. The paler coloured outer-case means ‘blood spots’ can easily be seen.

The BB Alert Passive incorporates a white band around the exterior, which clearly shows any bedbug faecal staining when the insects are present.

Barrettine passive monitor – available from Barrettine Environmental Health.

BB Alert Passive – available from Brandenburg, Barrettine Environmental Health, SX Environmental and Industrial Pesticides

Killgerm Bed Bug monitor – available from Killgerm

Active monitors

These monitors are designed to attract bedbugs. The Silvionic Bug Dome attracts the bugs by mimicking human body heat by means of an electric heater over which is placed a trap dome. This contains a special adhesive that prevents bugs escaping once trapped.

The BB Alert Active uses a replaceable activator supplied in a sealed package which, after opening, simulates the warmth and respiration that bedbugs use as indicators to find their hosts. Once the sachet is activated it is placed in the unit and the insulated top cover closed, so creating an attractive micro-climate. Inside the base of the unit is insect adhesive that traps the bedbugs.

Silvionic Bug Dome – available from Killgerm and Paragon

BB Alert Active – available from Brandenburg, Barrettine Environmental Health, Killgerm, SX Environmental and Industrial Pesticides

Monitoring devices

Detection and monitoring are at the core of professional pest control. If we don’t know what pests we have, where they are living, and whether they are increasing or decreasing, it is almost impossible to deliver rational pest control.

Although there are good monitoring devices available for many pests, until recently there has been nothing available for bedbugs, other than a visual inspection. A 2001 article on bedbugs published in Pesticide Outlook, listed three issues that appeared critical to resolving the bedbug upsurge and top of the list was the development of an effective bedbug monitoring tool.

Around seven years later the first wave of devices was launched in the UK. There is now an array of options available. The challenges involved in developing these products have been considerable.

Bedbugs are relatively inactive and, even when they are active, they respond to cues such as heat and carbon dioxide, which are difficult to incorporate into a discrete, sensibly-priced device.

This section outlines the main products available. For the user, making an informed choice among these products is hampered by the lack of comparative data on their effectiveness. Users of these devices would do well to encourage suppliers and manufacturers to provide such information so that claims of product effectiveness can be properly assessed. Meanwhile, in the not-too-distant future, the identification and synthesis of bedbug aggregation pheromone is likely to herald in a second wave of devices.