FAQ about Bedbugs: Pesticide bans have led to a resurgence of the dreaded pest

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It would be best not to panic, but we stand on the threshold of a global pandemic. This one, according to a study released last week by the National Pest Management Association and the University of Kentucky, involves bedbugs, the tiny bloodsucking insects that have struck fear in the hearts of anyone who appreciates a good night's sleep. "They are everywhere," agrees Cathy Loik, specialist for the Toronto Bed Bug Project and an inspector with Toronto Public Health. "Dirty or clean, you can get them. Rich or poor, you can get them." Question is, how do we get rid of them? The *Post*'s Ashley Csanady looks for the answers.

First things first How widespread is Toronto's infestation? New York announced last week it is launching a half-a-million dollar campaign to rid the Big Apple of its bugs, but Toronto already spends the same annual amount on the issue. Bedbugs have attacked hospitals, libraries, condos, apartments and single-family homes across the city. A bedbug registry has been created online to publicize addresses that have reported the

pests. “People are so freaked out. People find a bug in the bed, and right away they think the worst,” said Michael Goldman, a certified entomologist with Purity Pest Control. “Just because you find a bug in your bed, doesn’t mean it’s a bed bug.” That said, the problem has spread so quickly over the past decade that most suspicions aren’t without reason.

Why are they spreading? Bed bugs had been largely dormant in North America since the end of the Second World War, but over the past decade they have made a resurgence. Some experts blame an increase in international travel, especially between the West and Eastern Europe, where extensive infestations occurred during the Soviet era. But Dr. Michael Potter, a professor of entomology at the University of Kentucky, points a finger at change to insecticide regulations. “What made this problem pretty much go away for decades was the availability of very effective, long-lasting insecticides that were cheap, affordable and available not only to pest control companies but to consumers over the counter,” he said. He recently conducted a study comparing older pesticides to those used today. He found insecticides in two families, organophosphites and carbamates, are especially effective at eradicating bedbugs. Although some of these compounds can be found in insect traps or spot treatments, most are no longer permitted for use by pest-control professionals in North America, according to Mr. Goldman. This is particularly worrisome, because contemporary pesticides have no effect on bedbug eggs, he says.

Where are they, and have you asked Rover? One of the reasons bedbugs are so hard to exterminate is they can hide anywhere — couches, walls, even bookcases. So a few years ago, Mr. Goldman trained his dog Kody to sniff for bedbugs, using methods similar to how police dogs are trained to sniff for bombs or drugs. He now has three dogs trained to sniff out bedbug hiding places. Dogs are used by many extermination companies to pinpoint nests, and were even used to clear hotel rooms for foreign dignitaries prior to last month’s G20 summit. Increasingly, people use Mr. Goldman’s dogs to sniff out infestations before finalizing a home purchase or sign a long-term lease. “If it’s a heavy infestation it’s a no-brainer,” Mr. Goldman said, but “if it’s a light infestation, or just one or two bedbugs, it’s very difficult to find,” unless you’re a dog. The human eye can detect bedbugs with about 35% accuracy. A dog’s nose scores 95%.

How can you ever sleep tight again? Bedbugs are considered the hardest pest to exterminate, so finding exactly where they live is crucial. From there, Mr. Goldman uses a combination of vacuuming, steam-cleaning and pesticides. He wishes he were allowed to use some of the insecticides that have been proven effective. “If we had those [pesticides] today, we wouldn’t be having the issues we’re having now.” And the problem might be getting worse: Mr. Goldman says bedbugs are showing increasing resistance to the two insecticides he is allowed to use. The new methods entering the market are too time-intensive or expensive for widespread use.

What’s the temperature? Bedbugs don’t like extremes. Temperatures over 60C will wipe them out entirely, while freezing them is a bit more tricky. Just throwing a contaminated mattress outside in January won’t suffice, as their body temperature drops slowly, which allows them a chance to slide into a state of hibernation. You have to

freeze them instantly to wipe them out. Cryonite is an extermination method that does just that. It takes carbon dioxide gas and turns it into a solid instantly, which creates an extremely cold gas-like substance that can be used like a steam-cleaner to freeze bed bugs in their tracks. “The reality is that neither cryonite or steam treatments are a stand-alone treatment. They don’t have any residual or lasting effects afterwards,” Mr. Potter explained. “Volumetric heating […] that’s a little different because now you’re truly radiating heat to every location where that bed bug might hide.” With this method, exterminators raise the interior temperature of an infected area to 60C for six to eight hours. Certain foods, medications and the like can’t take the heat, but even most household electronics can handle 60 degrees. This method sounds ideal: it’s effective and chemical-free. The catch? It’s very expensive and time consuming. The best solution is still chemical, Mr. Potter argues.

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