

Keeping Bugs Out Of Food

Insect infestation is one of the biggest problems facing food manufacturers and distributors, who fight a constant battle to keep bugs out of factories and warehouses. Many pesticides are off-limits to food producers because of their toxicity, which makes this struggle even tougher.

"After some study, we discovered a perfectly natural and safe way to keep insects away from food," says Prof. Shlomo Navarro, co-founder of Israel's Bio[pack]. "Our solution is natural, safe, long-lasting, and unlikely to be something a bug could build up resistance to, unlike chemical pesticides." Bio[pack]'s compound can be applied to food packaging or used alone around a warehouse perimeter as an area repellent.



Navarro and his colleague Fadel Mansour of Israel's Volcani Agricultural Research Center based their revolutionary product on scientific research into naturally occurring pest repellents in plants.

Agriculturalists long knew, for example, that spearmint plants repel ants, coriander repels aphids, horseradish keeps away Colorado potato beetles, tomatoes repel cabbage maggots, and

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www.israel21c.org



potatoes keep Mexican bean beetles at bay. Navarro and his team, however, were the first to isolate and extract the specific chemical elements in plants that repel bugs. Bio[pack]'s solution combines numerous repellent elements into a single product.

Navarro, Mansour, and five fellow scientists hold patents for processes to extract natural insect repellents from fruits and vegetables and infuse them in plastic, aluminum wrap, cardboard, and other types of food packaging

Unlike chemical pesticides, Bio[pack]'s natural repellents don't allow for the possibility of insects building up resistance to the elements. "Resistance is a process that takes place when an element gets inside an insect population, and some of the population survive," says Navarro. As people do, bugs can get used to poisons, handing down resistance to subsequent generations of insects—with a new, resistant generation often appearing in a matter of weeks.

"Since our product is a repellent, the insects just stay away from the area where it is applied, so there is little chance of insects building up resistance," he explains. ★

