

Insects replace pesticides in Spain's 'Sea of Plastic'

Farmers adopt new methods as crops become resistant to chemicals

DALIAS, Spain: "They work for me night and day," smiles Antonio Zamora, standing in his greenhouse. His minuscule employees are bugs that feed on the parasites threatening his peppers. Zamora, like most of his colleagues, no longer sprays his crops with pesticides, instead hanging small bags of mites on the plants, leaving them to attack parasites while sparing his produce. He owns two hectares in the so-called "Sea of Plastic", some 30,000 hectares of greenhouses in southeastern Spain's Almeria province, where much of Europe's fruits and vegetables are grown.

The sparkling mosaic of white plastic bordering the Mediterranean—which is visible from space—produces tomatoes, cucumbers, courgettes, peppers and aubergines all year round to supply Europe's supermarkets. Last year 2.5 million tons of produce was exported from Almeria, half of Spain's total vegetable exports. Like Zamora, virtually all pepper growers in Almeria have replaced insecticides with so-called "biological control" using insects.

About 60 percent of tomato growers have done the same, along with a quarter of courgette producers, according to the producers' association Coexphal. Consumption of insecticides in Almeria—where agriculture employs some 120,000 people and accounts for 20

percent of economic output—has dropped by 40 percent since 2007, according to local authorities.

A trillion insects

The use of insecticides surged in the 1960s, but farmers have adopted new methods under pressure from consumer groups as well as the fact that their crops have become increasingly resistant to the chemicals. "We have had to change course. The use of pesticides became excessive," said Jan van der Blom, an expert in biocontrol at Coexphal. Encarnacion Samblas of environmental group Ecologists in Action described the change as a "very positive step".

"In many cases the reduction in the use of chemical products has been drastic, and the substances that are still in use are softer," she said. French agricultural cooperative InVivo, which has yearly sales of 5.5 billion euros, recently opened a "biofactory", Bioline Iberia, in the heart of the Sea of Plastic. Inside hermetically closed rooms with tightly controlled temperature and humidity levels, employees raise four species of mites to be sold in the region as well as in Portugal and Morocco.

The company projects production of a trillion insects this year. Several other factories of

the same type have sprung up in recent years around the Sea of Plastic, and roughly 30 firms sell insects, at steadily decreasing prices. "Spain can be considered the largest area in Europe and perhaps the world in terms of the use of biological control," said Bioline Iberia director Federico Garcia.

Chemicals still prevalent

But the road to truly green farming remains long, said Samblas of Ecologists in Action, noting that many farmers still use fungicides and various other substances to disinfect soils. "Farmers continue to use chemicals in a not very rational way, because they are recommended, they are sold to them. Often they use them as a routine, without really knowing why," she said. Even "organic" greenhouses—with 2,000 hectares certified as such or seeking the label—often pay little heed to biodiversity or fail to take proper care of the soil, the ecologist said.

She noted that European regulations on these issues are lacking. An increase in the amount of land used for farming has put pressure on water resources in an arid region, Samblas added. Agronomist Jose Manuel Torres warned that year-round farming methods favor the growth of parasites, arguing that



DALIAS, Spain: Spanish farmer Antonio Zamora works at his pepper plant's greenhouse in Dalías, near El Ejido. — AFP

the region should halt production during the summer. Samblas noted another problem: old greenhouse plastics often find their way into the Mediterranean.—AFP



TASMANIA: This undated handout picture shows a healthy wombat looking for food at Narawntapu National Park near Bakers Beach in Tasmania. — AFP

Aussie drug offers hope for stamping out wombat-killing disease

SYDNEY: A disease that has ravaged wombats in southern Australia could be brought under control using a treatment commonly applied by pet owners on cats and dogs, researchers said yesterday. Mange—which causes wombats to lose some or all of their fur and starve to death within months—has wiped out more than 90 percent of bare-nosed wombats in a single national park on the island state of Tasmania.

Squat and furry, wombats are small burrow-dwelling marsupials that are largely nocturnal and

walk on all fours. They are not a threatened species. But University of Tasmania scientist Scott Carver said the disease, which was introduced to Australia by European settlers in the 1800s, caused "the worst animal suffering" he had ever seen. Mange affects wombats across much of southeastern Australia and tends to cause only scattered deaths—until an outbreak strikes an entire population.

"You get sporadic outbreaks in different locations," Carver told AFP. "When you get these outbreaks, lots of individuals die." It is estimated there are now as few as three bare-nosed wombats left in Tasmania's Narawntapu National Park, where hundreds of the marsupials once roamed. A paper published today in the Journal of Applied Ecology details how past attempts to control the disease in the park failed, but Carver said scientists were now "confident" a different drug—used to treat mange in domestic cats and dogs—could prove effective in wombats. Scientists installed small doors over wom-

bats' burrows to brush on a course of mange-fighting treatment over several months in 2015, a program that initially seemed to eliminate mange but was deemed unsuccessful a year later once it became clear the effects were temporary. Carver said the study had prompted researchers to turn to an alternative medication, Bravecto, that could last for up to three months after a single application, as opposed to just one week.

"It's really just a slight improvement in the duration and the delivery—if you can couple those things together it will have a great effect in controlling the disease in wombat populations," he said. Trials of the drug on captive wombats are expected to last for the next six to 12 months, followed by at least two years of trials on wild animals. But Carver said he was hopeful Australian regulators would approve use of Bravecto on wombats within the next 18 months, allowing wildlife carers to administer the drug.—AFP

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