

## Spanish island grows bugs to dye from

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Biologist Juan Cazorla shows ground dry cochineal insects in Mala, Spain, in August 2011. The insect, which is a parasitic bug barely bigger than a flea, is trying to make a comeback in Spain's Canary Islands where it is cultivated for its crimson dye.

It's a parasitic bug that's barely bigger than a flea, but the cochineal is trying to make a comeback in Spain's Canary Islands where it is cultivated for its crimson dye.

The deep red colour, known as carmine, is derived from an acid that the oval-shaped insect produces to fend off predators.

"Most of the cochineal sales are used by the food and cosmetic industries. Some of it is used for textiles," said Juan Cazorla, a biologist trying to stimulate cultivation of the insect in the island of Lanzarote.

"We are trying to show various craftsmen in the island how to apply it in handicrafts to increase the value of their products and we are advertising this natural dye among other artists and craftsmen in other countries such as France, Britain, Turkey and the United States," he said.



Cochineal insects sit on a cacti in the Spanish Canary Island of Lanzarote. The tiny insects, which could be mistaken for tiny white stains, are being cultivated for their crimson dye.

Cazorla, who works with the Milena association to increase cochineal production, said producers need 3-3.5 kilograms (6.6-7.7 pounds) of cochineals to make a kilogram of air-dried produce, the raw material for the dye.

The insects, about six millimetres (slightly less than a quarter-inch) long, could be mistaken for tiny white stains on the leaves of the cacti that they live off.

They feed off the cacti's sap, and can spread naturally across plantations. But farmers help them out by infesting plants with small "mother" bags of spawning cochineals.

They are placed on the cacti so that the insects stick to it. After 60-70 days they have grown enough to be harvested with metal blades.

After another 10-20 days of drying, they are placed in bags and stored, sometimes for years, before the carmine is extracted for use as a natural dye on products unsuited to synthetic colouring.



A farmer collects cochineal insects in a cactus field on the Spanish Canary Island of Lanzarote in August 2011. The parasitic bug that's barely bigger than a flea, is cultivated for its crimson dye, which is derived from an acid it produces to fend off predators.

The farming cooperative in Mala-Guatiza growing region exported 20,000 kilograms (40,000 pounds) of dry Lanzarote cochineals to a German factory making carmine for food in April 2010.

Despite the potential riches, cochineal cultivation -- which dates back to pre-Columbian Mexico -- has declined in past years in the Canary Islands.

"To my knowledge there are 20-30 hectares (50-74 acres) of cultivated [plantations](#), mostly in the Mala-Guatiza growing region," Cazorla said.

They produce 2,000-3,000 kilogrammes of dry cochineals a year, well

down from the 14,000 harvested in 1980, he said.



Strings dyed in a deep red color known as carmine, are displayed at a lab on the Spanish Canary Island of Lanzarote where parasitic bugs known as cochineals are being cultivated for their crimson dye, which is derived from an acid they produce.

Canary Islands producers have a tough time competing against Peru, the leading supplier which meets most of world demand, followed by producers Chile, Bolivia and Mexico.

Dry cochineals were sold to Germany in 2010 for 50 euros a [kilogram](#), Cazorla said, but about 15 years ago the Canary Islands made hardly any sales because Peru's prices were sharply lower, he said.

Cochineal production remains therefore almost a family business

because there are few profits from dry cochineal sales alone. The Milana association is therefore encouraging growers to exploit the tourism appeal of their farms.

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