

Could insects be the new sushi?

Ten years ago, few could have imagined that sushi would be a lunchtime favourite stocked in every large supermarket. To most people in the UK, the idea of eating raw fish seemed as crazy then as the prospect of consuming grasshoppers and locusts does now.

However, with world population expected to exceed nine billion by 2050, insects are likely to become an increasingly important source of protein, says a recent report by the UN's Food & Agriculture Organization (FAO) and Wageningen University in the Netherlands. It concluded that eating insects could be vital in combating world hunger.

According to Wageningen University researchers, eating insects is a no-brainer: they are rich in protein, cost far less to raise than livestock, and have minimal carbon footprint. Plus, there are more than 1,900 edible species – an impressive menu choice.

In Asia, Africa and Latin America, eating insects is seen as the norm – even a treat. Caterpillars are highly sought after in Africa, wasp larvae is a popular delicacy

in Japan, and crispy fried locusts and beetles are regularly crunched in Thailand.

It's estimated that more than two billion people worldwide eat insects as part of their diet. Many

edible insects are harvested in the wild, but in the past decade the FAO has been helping countries such as Laos to set up insect farms – a relatively new concept.

In Europe, although plenty of farms produce insects as feed for farmed fish and pets, and bait, only three produce insects for

human consumption, all in the Netherlands. But that doesn't mean there's no interest in eating insects among the European public.

The new book by René Redzepi, chef at Noma in Copenhagen (voted the world's best restaurant for the past three years), contains a recipe for Bouquet of greens with black ant dripping – the ants, says Redzepi, taste like 'seared lemon rind'. On the menu at Archipelago, in London, you'll find Love Bug salad, containing pan-fried locusts and crickets, and last March, fondued chapulines – a Mexican classic using grasshoppers – was a huge hit at Wahaca, the restaurant chain run by *MasterChef* champion Thomasina Miers. Last summer, a student pop-up called Eat Ento caused a sensation with its foray into 'insect fine dining' – incorporating insects into glamorous dishes (see photo, right). Aran Dasan, who developed Eat Ento with three fellow graduates from London's Royal College of Art, doesn't see insects as novelty foods, but as a serious source of protein in our diets. So he and his team are now developing food products from insects.

'We don't treat insects as a party trick,' says Dasan. 'The key is to slowly get people used to the idea of eating them. It's a bit like sushi – 10 years ago, people viewed eating raw fish as weird, but now sushi is a staple office workers' lunch.' Dasan believes that by 2020, we'll be seeing insects in high street supermarkets and health shops.

However, although we may one day pick up a packet of frozen crickets with as little consternation as we now buy a bag of frozen prawns, food scientists predict that insects will be far more widely used as 'protein flour'

As world population grows, we'll need to get our protein from sources other than meat. Many believe insects could be the solution. **Clare Hargreaves** reports



Grub's up!

- Insects need little land, reproduce quickly and produce far fewer greenhouse gas emissions than traditional livestock – pigs produce 10 to 100 times more greenhouse gases per kilogram than mealworms.
- Insects are efficient in converting feed into edible meat – cattle require 12 times more feed to produce the same amount of protein as crickets.
- Many insects are high in protein and low in fat. Mealworms have similar levels of protein, vitamins and minerals as fish and meat.



Compressed watermelon topped with caterpillar risotto & ground-up cricket

– ground down and used in everything from burgers to cereal bars.

'Squeamish Western sensibilities may have trouble eating whole grubs, but as ingredients in ready meals, they're likely to be more palatable,' says Professor Arnold van Huis from Wageningen University. Actually, we eat insect products already, such as cochineal food colouring, extracted from the cochineal scale insect. So next time you swat a bug, take pause: it could be lunch.



Insects on sale at a market in Laos