How beekeepers are keeping food production going despite the sting of lockdown

Spring is the key time for crop pollination, which many apiarists are finding hard to do because of the pandemic, so Sue Quinn asks, what the lasting effects of coronavirus will mean for food availability and bee populations?

In the UK and elsewhere in the northern hemisphere, the beekeeping season is now in full swing (iStock)

As you enjoy crisp English apples over the coming months, local blueberries or tomatoes from Kent, give thanks to bees and beekeepers. Without their extraordinary – and largely unnoticed – efforts, supplies of fresh fruit, vegetables and nuts would be at risk due to measures to slow the coronavirus pandemic.

It's a side effect of the crisis few of us consider. We know bees are vital to pollinate crops; an estimated one-third of the food we eat depends on it. But what's not widely appreciated is the crucial role beekeepers and commercial pollinators play in food production around the world.

There are rarely sufficient bees in the environment to pollinate commercial quantities of crops, so nature needs a helping hand.

In California, almond growers truck in most of the bees in the US to pollinate their crops each spring. And in the UK, up to 30,000 bee colonies, each containing 30,000 insects, are transported to fruit and vegetable growers across the nation to do the job.

Just as humans went into coronavirus-induced lockdown, bees emerged from winter hibernation ready to search for nectar. This window of opportunity to pollinate crops now faces unprecedented challenges

In turn, beekeepers import queens and other bees each spring to replenish their colonies, which naturally decline over winter. These imports are also vital because some crops need pollinating early in the year, before home-grown colonies have had a chance to breed to a sufficiently large size.

The US and Canada import their queens from as far afield as Western Australia and New Zealand, while the UK sources mostly from southern Europe. Normally, bee producers simply pack the insects securely and send them by air to beekeepers around the world who need them. But lockdowns, quarantine requirements, border closures and other restrictions have disrupted this delicately balanced interplay between farmers, beekeepers and bees, according to experts.

In the UK and elsewhere in the northern hemisphere, the beekeeping season is now in full swing. Just as humans went into coronavirus-induced lockdown, bees emerged from winter hibernation ready to search for nectar to feed their young. This window of opportunity to pollinate crops has opened amid unprecedented challenges – and only for a short time.

Professor Norberto Garcia, an expert from Apimondia, the international federation of beekeepers, says tending and transporting bees is regarded as essential, so is still legal under lockdown restrictions in most parts of the world, including the UK. But it's anything but business as usual.

The situation is most severe in Canada, where bee imports from the US are banned. But there are also problems in Greece and Italy, where the UK sources many of its queens. There, lockdown restrictions have been severe, with beekeepers sometimes banned from travelling long distances.

This has made pollination difficult and sometimes prevented bees bred in the warmer southern regions from reaching beekeepers who need them. "Also, the regular beekeeping activity that keeps the supply of bees going has been curtailed," Garcia says.

"Some beekeepers are finding it difficult to tend their hives as frequently as they normally do. And beekeeping shops are closed, so some can't find the materials and equipment they need to manage their bees as normal." Greek apiarists say that in some cases bees will starve.

Bees pollinate crops in early spring, like this rapeseed oil crop (iStock)

Cancelled flights, airport closures and paperwork jams have also made it difficult for beekeepers to import queens in time to pollinate crops. “There is a risk to food production, absolutely, and also the production of bees themselves might be affected,” Garcia says. “But it’s too early to know how big this effect will be.”

Travel restrictions have caused a critical shortage of seasonal agricultural workers and haulage drivers globally, including in the UK. In Scotland, for example, fruit farmers are suffering “a crippling shortage of labour”, according to Murray McGregor, one the of the UK’s largest bee farmers and a member of the British Bee Farmers Association. As a result, some crops have been delayed and there have been shortages of workers to manage bees.

One positive is that countryside verges are not being cut back at the moment, and instead are blooming areas for the insects (Trevor Dines, Planlife)

But the industry is rising to the challenges where it can. McGregor recently drove a truck and trailer to northern Italy to collect 460 packages of queens and workers from bee farmers who produce the insects for him in Tuscany and Piedmont. These bees have filled depleted UK hives and are used to pollinate crops – mostly apples, blueberries and honeyberries. McGregor will return to Italy shortly to collect another crucial load.

He's never done the trip under such challenging circumstances. To minimise risks, his partners in Piedmont handed over the bees just inside the Italian border, and social distancing and strict hygiene precautions were maintained at all times. "I was not at all afraid to do the trip," McGregor says. "My clients are dependent on us, so I feel obligated to do it if it is at all possible. I do not feel in the slightest bit brave. It's my life and what I do."

Beekeepers in cities are facing difficulties too. Luke Dixon, from Urban Beekeeping, maintains hives on the rooftops of hotels, office blocks and other buildings, including the Bank of England. He's scrambled to move them to sites where they can be easily managed during lockdown.

"It's been a massive operation," Dixon says. "At this time of the year bees need to be cared for and husbanded, and they need to be visited once a week." Some hives are being temporarily housed in a school playground. The Bank of England's bees, meanwhile, have a new home in Essex where the nation's banknotes are printed. "They're in the Fort Knox of England, secured and cared for in a beautiful meadow," Dixon says.

Along with the challenges facing beekeepers and the threats to food production, there are silver linings to the crisis too. Wildlife experts believe the lockdown could be a boon for bees and other pollinators, as councils leave roadside verges, parks and other open spaces uncut due to staff shortages.

Plantlife, Europe's biggest conservation charity, says the mini-meadows popping up around the country in an explosion of colour could help declining bee populations recover.

Garcia says there has also been a welcome global boom in demand for honey and royal jelly as consumers stock up on the products for their health benefits. He also hopes the pandemic may deepen our understanding of the crucial role of bees and beekeepers in food production. "Beekeepers and bees are responsible for the apples that we eat," he says. "Many consumers don't realise that."