没有蜜蜂的未来存在吗？Is there a future without bees?

Hello. This is 6 Minute English from BBC Learning English. I'm Neil.

大家好。这里是 BBC 学习英语栏目的六分钟英语。我是内尔。

And I'm Sam.

我是萨姆。

How are you, Neil?

你好吗，内尔?

Oh,I've been as busy as a bee this week, Sam.

我这周忙得像只蜜蜂，萨姆。

Ah, don't you sound like the bee's knees!

哦，你听起来像个精英！

All right, Sam, there's no need to get a bee in your bonnet!

好了，萨姆，没必要胡说八道！

As you can hear, English is full of idioms involving bees.

如你所听，英语里都是跟蜜蜂相关的习语。

But the sad truth is that bee numbers are declining at an alarming rate and in some places disappearing altogether.

但是悲伤的是，蜜蜂的数量正以惊人的速度减少，并且在某些地方已经完全消失了。

And this has serious consequences for humans.

而这对人类来说有严重的后果。

Today, one third of the food we eat depends on insects to pollinate crops, fruit and vegetables.

如今，我们吃的三分之一的食物都依赖于昆虫给农作物、水果和蔬菜授粉。

But bees are in trouble.

但是蜜蜂陷入了困境。

In some European countries up to half of all bee species are facing extinction, placing our food supply chain at risk.

在欧洲一些国家，高达一半的蜜蜂物种正濒临灭绝，让我们的食物供应链陷入危险。

Bees are vital in pollinating hundreds of crops, from apples and blackberries to cucumbers.

蜜蜂对于数百种农作物的授粉至关重要，从苹果到黑莓到黄瓜。

In fact, almost all plants need insects to reproduce, which is my quiz question, of the world's top 50 crops, how many rely on insect pollination?

事实上，几乎所有的植物都需要昆虫来繁殖，这就是我今天的问题，在世界前50名的农作物里，有多少种依赖昆虫授粉?

Is it: a) 35 out of 50, b) 40 out of 50, or c) 45 out of 50?

添加的词汇

是 A. 35种，B.40种，还是 C. 45种?

I reckon those busy bees pollinate b) 40 out of 50 of the most common crops.

我认为那些繁忙的蜜蜂给50种最常见的农作物中的40种授粉。

OK, Sam, we'll find out the answer later.

好的，萨姆，我们稍后会揭晓答案。

Now, if you think back to your school biology lessons, you may remember that plants and flowers contain both male and female reproductive parts inside.

现在，如果你回想一下学校的生物课，你可能会想起植物和花内部都有雄性和雌性的繁殖器官。

But what exactly is going on when bees pollinate a plant?

但是蜜蜂在给植物授粉的时候到底发生了什么呢?

Here's Claire Bates from BBC World Service programme People Fixing the World to remind us.

以下是 BBC 世界服务节目《修理世界的人》的克莱尔·贝茨提醒我们。

What is pollination?

什么是授粉?

All flowering plants need it to reproduce.

所有开花的植物都需要它来繁殖。

Pollen is moved from the male part of a flower to the female part of a flower, then fertilisation can happen causing fruit to grow.

花粉从花的雄蕊移动到雌蕊，然后受精得以实现，从而让果实成长。

Some staple crops such as wheat, rice and corn are pollinated by the wind, however many plants don't release their pollen easily and this is where insects, and especially bees, come in.

有些主要作物，例如小麦，大米和玉米都是通过风来授粉，但是很多植物不轻易释放它们的花粉，而这就是昆虫，尤其是蜜蜂，起作用的地方。

As they collect nectar to eat, pollen sticks to them and they carry it from flower to flower.

当它们采集花蜜吃的时候，花粉会粘在它们身上，然后它们把花粉从一朵花带到另一朵花。

Pollination is the process in which pollen is taken from one plant to another so that it can reproduce.

授粉指的是花粉从一个植物被带到另一个植物的过程。

This is the important work done by bees and insects.

这是蜜蜂和昆虫的重要职责。

Only after pollination can the next process occur-fertilisation-when the pollen carried from another plant fertilises a female ovule to make new seeds.

只有经过了授粉，下一个程序受精——被带到另一个植物上的花粉在磁性胚珠上授精来结成新种子——才会发生。

Fertilisation occurs in all flowering plants, some of which like wheat, potatoes and rice are staple crops-food that is eaten in large amounts as part of a community's daily diet and provides a large fraction of their energy and nutrient needs.

所有开花的植物都会发生受精过程，其中有一些例如小麦，土豆和大米是主要作物——作为某个集体日常饮食一部分而被大量食用的食物，并且提供大部分的能量和营养需求。

Fewer bees reduces pollination levels, meaning fewer new seeds are created and fewer crops grown.

越来越少的蜜蜂降低了授粉级别，意味着越来越少的新种子被创造，以及更少的农作物生长。

But it isn't just the decline in bee numbers causing a problem.

但是并不只是蜜蜂数量的减少在造成问题。

Like us, bees need to rest and this has led some to come up with creative new ways of supplementing bee pollination.

像我们一样，蜜蜂需要休息，而这导致一些人想出了补充蜜蜂授粉的创意新方法。

One such innovator is Keren Mimran, co-founder of agro-tech company, Edete.

其中一位发明家就是凯伦·米朗，农业技术公司 Edete 的联合创始人。

Here she is, explaining how dropping pollen from drones can pollinate crops, giving a helping hand to hard-working bees.

以下是她解释利用无人机倾洒花粉如何给农作物授粉，从而帮助努力的蜜蜂。

How come our food security is so much dependent on an insect that we cannot really control?

为什么我们的粮食保障如此依赖于我们无法控制的昆虫?

We can bring the bees to the orchard or to a field but we cannot control their behaviour.

我们可以把蜜蜂带到果园或田地上，但是我们无法控制它们的行为。

They do not come out of the hive when it's raining or when there's heavy wind, they work only during daytime.

下雨或者风很大的时候，它们不会从蜂巢里出来，它们只在白天工作。

There must be a possibility of developing a mechanical solution to the pollination challenge.

肯定可以开发出一种机械方法来解决授粉的挑战。

Keren Mimran there speaking on the BBC World Service programme People Fixing The World.

凯伦·米朗在 BBC 世界服务节目《修理世界的人》里发言。

Bees' behaviour can't be controlled-when it rains they won't leave their hive-the structure where bees live, either built by people or made by the bees themselves.

蜜蜂的行为不可控——下雨的时候它们不会离开蜂巢——蜜蜂的居住地，要么由人建造，要么由蜜蜂自己建造。

So Keren's company has developed drones to drop pollen on her orchard-an area of land on which fruit trees are grown.

所以凯伦的公司开发了无人机在她的果园——种植果树的地带——倾洒花粉。

The need for these high-tech solutions reflects the seriousness of the pollination problem for food security-everyone getting enough affordable and nutritious food to meet their daily dietary needs.

对于这种高科技解决方法的需要反映了影响粮食保障——每个人都有足够的买得起的且有营养的食物满足他们的日常饮食需求——的授粉问题的严重性。

I had no idea bees were so important, Neil.

我以前都不知道蜜蜂如此重要，内尔。

Maybe I underestimated how hard they work.

也许我低估了它们有多努力。

Ah, you mean today's quiz question.

啊，你指的是今天的小问题。

I asked how many of the top 50 world crops rely on insect pollination.

我之前问你世界排名前50的农作物有多少依赖昆虫授粉。

And I said b) 40 out of 50 of the top crops.

我说的是 B. 前50种作物中的40种。

And you are right!

你答对了！

They certainly are the bee's knees when it comes to pollinating plants!

当说到给植物授粉，它们是当之无愧的精英！

So in today's programme, we've been hearing about the important role bees play in pollination-transferring pollen from plant to plant, necessary for the next stage of fertilisation-producing new seeds and fruit inside a plant.

在今天的节目中，我们一直在听蜜蜂对于授粉——在植物之间运送花粉，对于受精的下个阶段很必要——有多重要的信息。

Bees and insects play a vital role in growing the world's staple crops-food which, eaten in large amounts, makes up the majority of a community's daily diet and meets their nutrient needs.

蜜蜂和昆虫在世界主要作物——被大量食用的食物，占据了某个集体日常饮食的主要部分，并且满足他们的营养需求——的生长中起着至关重要的作用。

So bee numbers are directly linked to the issue of food security-everyone getting enough affordable, nutritious food to meet their dietary needs.

所以蜜蜂数量直接关系到粮食保障——每个人获得足够的买得起的，有营养的食物来满足他们的饮食需求。

Which explains why, when bees won't leave their home, or hive-some people have started using drones to pollinate their orchards-land growing fruit trees.

这解释了为什么当蜜蜂不愿意离开它们的家，或者说蜂巢的时候，也有些人开始使用无人机来给他们的果园——种植果树的地方——授粉。

And that's it for this edition of 6 Minute English.

这就是本期六分钟英语的所有内容。

Bye for now!

再见！

Goodbye!

再见。