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本集内容

Making 'plastic' from peas 豌豆变塑料

学习要点

有关“technology（技术）”的词汇

边看边答

Can the new biodegradable plastic capsules only be made from peas?

文字稿

Everyone in this lab is full of plastic. Well, their lab coats are anyway.

在这间实验室里，每个人从头到脚都是塑料。至少他们的实验服都是塑料做的。

A lot of our clothes are full of tiny little balls that have got fragrance inside - it's what makes them smell so nice. Now, normally they're made of plastic, which washes into the environment and stays there for decades. What if you could make them out of something that's better for the planet, like peas?

我们的很多衣服里面都含有大量带有香味的小球，这就是衣物闻起来很香的原因。通常情况下，这些小球是塑料做的，塑料在洗涤过程中被冲到自然环境里，一呆就是几十年。如果你能用更环保的原料制作这些小球呢，比如豌豆？

This is the first company in the world to **engineer** plant **protein** into a material that does the same job as single-use plastic. Things like the **microcapsules** that you'd often get inside fabric conditioners or cosmetics.

这家公司将植物**蛋白**改造成与一次性塑料功能相同的材料，为世界首例。例如**微胶囊**这种材料，它在衣物柔顺剂或化妆品中很常见。

Anne Jacobs, biochemist, Xampla

At the moment, the microcapsules contain plastic which would not degrade and last for ages in the ocean. Our capsules were made of protein and would be eaten by fish eventually.

安妮·雅各布斯 Xampla 生物化学家

“目前，微胶囊中含有塑料，这种塑料不能被降解，长时间留在海洋中。我们的胶囊是由蛋白质做成的，最终会被鱼吃掉。”

It's taken fifteen years to **perfect** the process. Here they're using peas, but you can use other common plants including potatoes. Eventually it comes out as a liquid that can be made into plastic-like sheets.

完善这个制作过程花了十五年的时间。这里他们用的原料是豌豆，但你可以使用其它常见的植物，包括土豆。最终成品以液体态呈现，然后可以再制成塑料状的薄片。

Dishwasher tablets, sandwich packets, sweet wrappers – all made of something that biodegrades naturally in a matter of days.

洗碗机清洁片、三明治外包装、糖果包装，都是用几天内就能自然降解的材料制成的。

Richard Westcott, BBC correspondent

Is there a danger you're just replacing one problem with another? So, farmers who should be growing food are actually going to grow peas to make plastic and then we don't have enough food?

理查德·威斯科特 BBC 通讯员

“有没有这样一种危险：你解决了一个问题，但取而代之的是另一个问题？本应种植食物的农民们却要转为种植豌豆来制作塑料，这样我们就没有足够的粮食，怎么办？”

Simon Hombersley, CEO Xampla

There are a lot of waste products already in the farming process that have got very low value or even are just ploughed straight back into the field, that can be sold on and used to make our kind of materials. Single-use plastics and **microplastics** don't need to be made from fossil fuels. There's something very wrong about making materials from oil that last just for a minute or two.

西蒙·霍姆伯斯利 Xampla 首席执行官

“在农业生产过程中，已经有大量的废料，它们的价值很低，甚至直接被犁入地里，这些废料可以被出售，用来制作我们需要的原料。一次性塑料和**微塑料**不需要由化石燃料制成。从石油中提炼制造只能维持一两分钟的原料，这是非常错误的。”

It's thought the average family washes around 14 million tiny plastic balls down the drain each week. Several countries are in the process of banning them. Now there's a way of swapping that harmful plastic for something made from peas.

据估计，一个普通家庭每周会把约 1400 万个塑料小球冲进下水道。有几个国家正在着手禁止含有这类塑料小球的产品。现在有一种方法：可以用“豌豆塑料”来代替有害的塑料。

## 词汇

engineer 设计, 制造

protein 蛋白质

microcapsules 微胶囊

perfect 完善, 使完美

microplastics 微塑料

视频链接

<https://bbc.in/3i6AQf7>

## 问题答案

No. Other common plants including potatoes can be used to make biodegradable plastic capsules.