

-
- 請注意：中文文字内容只提供簡體版

Vocabulary: Technology 词汇: 科技

Imagine a future where all farming is done by machine, and humans never **set foot** in the fields.

No, it's not science fiction. In Shropshire in the UK, engineers in the Hands Free Hectare project are developing **automated** tractors and **fleets** of drones to grow and harvest crops.

And their experiment is not alone: agricultural **robotics** is a booming **sector**. Investment bank Goldman Sachs estimates the market will be worth \$240bn over the next five years.

One reason why the sector is **on the up** is that global demand for food is rapidly increasing. The World Bank estimates we will need to produce 50% more food by 2050 if the planet's population continues to grow at its current speed. Add to this to the **forecast** that **yields** will decrease by over a quarter due to climate change, and the situation looks serious.

Could futuristic farming provide the answer?

One company in Japan believes so. The firm Spread has **dispensed with** farming on land altogether, and instead grows vegetables on **stacks** of trays indoors in an automated factory.

"In countries like Japan, where land is actually a very scarce resource, it makes more sense to stack your production, just like a skyscraper," says JJ Price, Spread's global marketing manager.

Mr Price told the BBC that this method of vertical farming not only reduces costs by 50%, but it is also greener. **LED lights** cut energy bills by a third, and 98% of water can be recycled. By growing crops close to where people consume them, transport costs and **emissions** are also minimised, he says. They hope to be producing 30,000 lettuces per day next year.

And where will we buy this futuristic food? Perhaps in shops with no staff? Amazon has recently launched its first Amazon Go store in the US, which has no **checkouts**. Customers simply pick their items from the shelves, and technology does the rest.

All this **begs the question**: if everything is automated, what jobs will people do? The **mechanisation** of farming means fewer and fewer people work the land. From 1950 to 2010, agricultural labourers have decreased from 81% to 48.2% of the **workforce** in developing countries, and from 35% to 4.2% in developed countries, according to the International Labour Organization. It's a trend that looks set to continue.

词汇表

to set foot (in)	去（某处）
automated	自动化的
fleet	舰队、船队
robotics	机器人技术
sector	行业，领域
on the up	蒸蒸日上的，稳步上升的
forecast	（对形势的）预测
yield	（农作物的）产量，常作复数
to dispense with	免去，不再使用
stack	叠
LED lights	发光二极管照明技术
emission	（气、热、光等）排放物
checkout	收银处，付款台
to beg the question	引人发问
mechanisation	机械化
workforce	劳动人口

测验与练习

1. 阅读课文并回答问题。

1. Why does Spread think vertical farming makes particular sense in Japan?
2. What is likely to happen to the agricultural workforce in the future?
3. Which two factors do the World Bank think will put pressure on food production?
4. Which word means: 'more environmentally friendly'?
5. True or false: Goldman Sachs predicts the market for automated tractors will be worth \$240 billion in five years.

2. 请你在不参考课文的情况下完成下列练习。选择一个意思合适的单词填入句子的空格处。

1. Farming has become increasingly _____ over the years.

machination	mechanisation	machine	mechanised
-------------	---------------	---------	------------

2. I've never _____ in a shopping mall. I buy everything in local markets.

set my foot	set foot	set feet	set my feet
-------------	----------	----------	-------------

3. Mark _____. He's just got a job at a top bank.

is on the up	on the up	day day up	went up
--------------	-----------	------------	---------

4. I decided _____ our second car. One's enough for my family.

dispense with	dispense	to dispense	to dispense with
---------------	----------	-------------	------------------

5. Our _____ shrunk over the last ten years.

employees have	workforce has	workforce have	employee have
----------------	---------------	----------------	---------------

答案

1. 阅读课文并回答问题。

1. Why does Spread think vertical farming makes particular sense in Japan?

Spread believes vertical farming makes particular sense because there is so little land available for farming in Japan.

2. What is likely to happen to the agricultural workforce in the future?

There are likely to be fewer people working in farming in the future. The workforce will get smaller.

3. Which two factors do the World Bank think will put pressure on food production?

The World Bank thinks climate change and population growth will put pressure on farming to become more productive.

4. Which word means: 'more environmentally friendly'?

Greener.

5. True or false: Goldman Sachs predicts the market for automated tractors will be worth \$240 billion in five years.

False. Goldman Sachs estimates the market for agricultural robotics will be worth \$240 billion over five years.

2. 请你在不参考课文的情况下完成下列练习。选择一个意思合适的单词填入句子的空格处。

1. Farming has become increasingly **mechanised** over the years.

2. I've never **set foot** in a shopping mall. I buy everything in local markets.

3. Mark **is on the up**. He's just got a job at a top bank.

4. I decided **to dispense with** our second car. One's enough for my family.

5. Our **workforce has** shrunk over the last ten years.