

词汇: *farming* 农耕

Why do farmers grow **crops** outside in **fields** when we can **stack** them vertically? The idea of **vertical farming** was first proposed in 1999. It was seen as a way to save space, reduce **air miles** and transform old and abandoned buildings, like **warehouses**. In 2021, Fortune Business Insights valued the global vertical farming market at 3.47 billion dollars. Now, however, this industry is under threat, partly due to rising energy costs.

According to the magazine Science Focus, vertical farming gives ten times the **yield** of conventional outdoor farming. However, in order for crops to grow using this method, plants are placed in a **controlled environment**, grown not under the Sun, but under **LED lights** and watered with recycled water **pumped** on a **closed-loop** system.

Unfortunately, energy prices have risen across the globe. Therefore, this **reliance** on electricity has meant the last few years have not been easy for the industry. Cindy van Rijswijk, from the Dutch research firm RaboResearch, has estimated that **operational costs** for a vertical farm are around 15% higher now compared to 18 months ago. Infarm, Europe's largest vertical farming company, **made** around 500 employees **redundant** back in November 2022 because they needed to **downsize**. They blamed higher operating costs due to energy increases as one reason for the **layoffs**.

Another issue related to the **cost-of-living crisis** and affecting vertical farming is the type of **produce** grown. This includes herbs such as **basil**, as well as **salad leaves** and **leafy greens**. Compared to traditionally **farmed** ingredients, like onions and carrots, these products are more expensive so could be less in demand as consumers watch their spending more.

So, it seems a future with food grown under LED lights is looking less and less bright.

## 词汇表

<b>crop</b>	作物，庄稼
<b>field</b>	田地
<b>stack</b>	叠放，摞起来
<b>vertical farming</b>	垂直农业
<b>air mile</b>	（食物）里程
<b>warehouse</b>	仓库
<b>yield</b>	产量
<b>controlled environment</b>	受控的环境
<b>LED light</b>	发光二极管（LED）灯
<b>pump</b>	用泵输送
<b>closed-loop</b>	闭环的
<b>reliance</b>	依赖
<b>operational cost</b>	运营成本
<b>make redundant</b>	裁员
<b>downsize</b>	（公司或组织）减员
<b>layoff</b>	（因工作岗位不足的）解雇
<b>cost-of-living crisis</b>	生活成本危机
<b>produce</b>	农产品
<b>basil</b>	罗勒
<b>salad leaves</b>	拌沙拉常用的菜叶
<b>leafy greens</b>	绿叶蔬菜
<b>farmed</b>	耕种的，种植的

## 测验与练习

### 1. 阅读课文并回答问题。

1. What three advantages of vertical farming are given?
2. How are plants watered in a vertical farm?
3. True or false? *It is 15% more expensive to run a vertical farm now, compared to 18 months ago.*
4. Why did Infarm make 500 employees redundant?
5. Why might consumers choose to buy more traditionally farmed ingredients than vertical farming produce?

### 2. 选择意思恰当的单词或词组来完成下列句子。

1. The potential \_\_\_\_\_ for the new drones is said to be worth around \$1 million.

crop	field	market	air mile
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2. At home, she \_\_\_\_\_ the books she had brought from the library.

stacked	relied	pumped	blamed
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3. We are buying a smaller house. We need to \_\_\_\_\_ since the kids moved out.

make redundant	downsize	grow	retail
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4. My family always grow carrots and \_\_\_\_\_ in the garden each summer.

layoff	farming	greens	cost
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5. We eat a lot of \_\_\_\_\_ green vegetables at home.

farmed	leafy	controlled	LED
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答案

1. 阅读课文并回答问题。

1. What three advantages of vertical farming are given?

**Vertical farming was seen as a way to save space, reduce air miles and transform old and abandoned buildings.**

2. How are plants watered in a vertical farm?

**They are watered with recycled water pumped on a closed-loop system.**

3. True or false? *It is 15% more expensive to run a vertical farm now, compared to 18 months ago.*

**True. It is estimated that operational costs for a vertical farm are around 15% higher now compared to 18 months ago.**

4. Why did Infarm make 500 employees redundant?

**They needed to downsize. They blamed higher operating costs due to energy increases as one reason for the layoffs.**

5. Why might consumers choose to buy more traditionally farmed ingredients than vertical farming produce?

**Because compared to traditional farmed ingredients, vertical farming produce are more expensive so could be less in demand as consumers watch their spending more.**

2. 选择意思恰当的单词或词组来完成下列句子。

1. The potential **market** for the new drones is said to be worth around \$1 million.

2. At home, she **stacked** the books she had brought from the library.

3. We are buying a smaller house. We need to **downsize** since the kids moved out.

4. My family always grow carrots and **greens** in the garden each summer.

5. We eat a lot of **leafy** green vegetables at home.