

Cosmic Horticulture Facts

Horticulture · Answer Key · 10 Questions

1. Which plant was the first to be successfully grown and harvested in space for consumption by humans?

- A) Tomatoes
- B) Lettuce**
- C) Peppers
- D) Strawberries

2. What is the primary challenge for plant growth in the microgravity environment of the International Space Station (ISS)?

- A) Lack of sunlight
- B) Difficulty in water and nutrient distribution**
- C) Extreme temperature fluctuations
- D) Reduced carbon dioxide levels

3. The 'Veggie' experiment on the ISS aims to grow plants for what dual purpose?

- A) Scientific research and oxygen production
- B) Food source and psychological well-being for astronauts**
- C) Understanding extraterrestrial plant life and soil remediation
- D) Testing new fertilizer compounds and light spectrums

4. What is the typical duration of a plant's growth cycle for experiments conducted on the ISS?

- A) 1-2 months**
- B) 3-6 months
- C) 6-12 months
- D) Over 1 year

5. Which planet in our solar system is known to have conditions that could theoretically support some forms of life, including potential microbial plant-like organisms, due to its subsurface ocean?

- A) Mars
- B) Jupiter
- C) Europa (moon of Jupiter)**
- D) Titan (moon of Saturn)

6. What is the significance of the dwarf planet Ceres in the context of potential extraterrestrial plant life or resources?

- A) It has a dense atmosphere suitable for plant growth.
- B) It is believed to contain significant amounts of water ice.**
- C) It is a gas giant with strong gravitational pull for plant anchoring.
- D) It has a very high concentration of carbon dioxide.

7. During long-duration space missions, what is a key benefit of growing fresh produce for astronauts?

- A) Increased radiation exposure
- B) Enhanced nutrient intake and morale boost**
- C) Reduced water conservation
- D) Simpler waste management

8. The light spectrum used in space horticulture experiments, like on the ISS, is often tailored to optimize photosynthesis. Which color of light is generally most efficient for this process?

- A) Green
- B) Blue and Red**
- C) Yellow
- D) Orange

9. Which star is the primary source of energy for plant growth on Earth and a fundamental element for photosynthesis?

- A) Proxima Centauri
- B) Sirius
- C) The Sun**
- D) Alpha Centauri A

10. What is the term for the study of plant life in extraterrestrial environments or the potential for life on other planets?

- A) Astrobiology
- B) Xenobotany**
- C) Geobotany
- D) Paleobotany