

# New Study Reveals Tomatoes Pose No Harmful Threat

## **Description**

Nightshade berries are very poisonous and may have killed a Roman emperor. Tomatoes are part of the same plant family and also have harmful toxins, but they don't usually harm us.

Tomatoes were once believed to be poisonous, but they have evolved to make their toxins less harmful. Scientists have discovered the genes that help tomatoes do this.

Other plants in the same family, like potatoes, also have toxins to protect themselves from pests. Humans can get sick if they eat too much of these toxins.

Animals help spread the seeds of these plants by eating the fruit. As the fruit ripens, the toxic chemicals turn into something tasty for animals to eat.

Tomatoes have a protein called DML2 that helps make their toxic chemicals less harmful. This change happened during the domestication of tomatoes, making them safe for us to eat.

Overall, tomatoes have become a safe and healthy food for people to enjoy all around the world.

# **Vocabulary List:**

- 1. Poisonous /'poi.zən.əs/ (adjective): Containing substances that can cause illness or death if ingested.
- 2. Toxins /'tpk.sɪnz/ (noun): Poisonous substances produced by living cells or organisms.
- 3. Evolved /ɪ'vplvd/ (verb): Developed gradually especially from a simple to a more complex form.
- 4. **Domestication** /dəˌmɛs.tɪˈkeɪ.ʃən/ (noun): The process of adapting wild plants and animals for human use.
- 5. Ripens /'raɪ.pənz/ (verb): To become ripe or mature especially regarding fruit.

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6. **Chemicals** /ˈkɛmɪkəlz/ (noun): Substances with a defined composition often used in processes such as reactions or manufacturing.

# **Comprehension Questions**

#### **Multiple Choice**

1. Which plant family do tomatoes belong to?

Option: Nightshade



Option: Rose Option: Daisy Option: Cactus

2. What protein in tomatoes helps make their toxic chemicals less harmful?

Option: DML2

Option: Beta-carotene Option: Chlorophyll Option: Hemoglobin

3. What type of fruit helps spread the seeds of nightshade plants?

Option: Animals Option: Humans Option: Wind Option: Water

4. What is the purpose of toxins in plants like tomatoes and potatoes? SL-NEWS.CO

Option: Protect from pests Option: Attract pollinators Option: Enhance flavor Option: Promote growth

5. What has helped tomatoes evolve to be less harmful to humans?

Option: Genes Option: Watering Option: Sunlight **Option: Pesticides** 

6. What historical figure may have been killed by nightshade berries?

Option: Roman emperor Option: Greek philosopher Option: Egyptian pharaoh

Option: Viking king

## **True-False**

7. Tomatoes are generally harmful to humans.



8. Potatoes belong to the same plant family as tomatoes.	

9. Toxic chemicals in nightshade plants become tasty as the fruit ripens.

10. Animals play a role in spreading the seeds of tomatoes.

11. Tomatoes are safer to eat due to a protein called Chlorophyll.

12. The evolution of tomatoes helped make their toxins less harmful.

## **Gap-Fill**

14. Tomatoes were once believed to be poisonous, but they have evolved to make their toxins less harmful.
Scientists have discovered the genes that help do this.
15. Overall, tomatoes have become a safe and healthy food for people to enjoy all around the
16. Tomatoes have a protein called DML2 that helps make their toxic chemicals less
This change happened during the domestication of tomatoes, making them safe
for us to eat.
17. Animals help spread the seeds of these plants by eating the
18. Other plants in the same family, like, also have toxins to protect themselves
from pests.

# **Answer**

Multiple Choice: 1. Nightshade 2. DML2 3. Animals 4. Protect from pests 5. Genes 6. Roman emperor

**True-False:** 7. False 8. True 9. True 10. True 11. False 12. True **Gap-Fill:** 14. tomatoes 15. world 16. harmful 17. fruit 18. potatoes



# Vocabulary quizzes

### Multiple Choice (Select the Correct answer for each question.)

1. Which disease is characterized by memory loss and cognitive decline?

Option: Alzheimer's Option: Oxygen Option: Activity Option: Evolution

2. What type of planet orbits a star outside of our solar system?

Option: Research Option: Exoplanet Option: Astronomers Option: Oxygen

ESL-NEWS.COM 3. What force keeps planets in orbit around stars?

**Option: Toxins** 

Option: Gravitational Option: Pollution Option: Poisonous

4. What process causes fruits to become mature and ready to eat?

Option: Ripens Option: Chemicals **Option: Toxins** 

Option: Astronomers

5. Which type of cancer originates in glandular tissue?

Option: Evolution

Option: Adenocarcinoma

Option: Tobacco Option: Activity

6. Which term describes something with large mass or size?

Option: Domestication Option: Chemicals Option: Massive Option: Evolved

7. What is the process of taking in oxygen and expelling carbon dioxide called?



Option: Breathing Option: Research **Option: Promising** Option: Observations

8. What is collected and analyzed to gain information?

Option: Identifying

Option: Data

Option: Strategies Option: Ripens

9. What process describes the gradual development of something over time?

Option: Evolution Option: Microlensing Option: Significant Option: Activity

10. Which substances are harmful and can cause adverse effects when present in the body? ESL-NEWS.CO

**Option: Toxins** 

Option: Intermediate-mass

Option: Research Option: Breathing

## Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. Scientists conduct	to discover new findings.
12. The new treatment shows great $\_$	in curing the disease.
13. The of a	animals led to changes in their behavior and genetics.
14. Some ir	n the environment can be harmful to human health.
15 study c	elestial objects and phenomena in the universe.
16. Efforts are being made to reduce	levels in major cities.
17. The new discovery will have a	impact on the field of medicine
18. Businesses need effective	to achieve success in the market.



19. Scientists make detailed	to understand natural phenomena.		
20. The force between planets keeps them in their orbits.			
Matching Sentences ( Match each definition to the correct word from the vocabulary list. )			
21. Species have over time to adapt to their environments.			
22. is a technique used by astronomers to discover distant planets.			
23. key characteristics is important in classifying different species.			
24. Astronomers use various methods to detect new beyond our solar system.			
25. Regular physical is important for maintaining good health.			
26. Some plants produce substances to deter herbivores from eating them.			
27. The new drug has shown results in early trials.			
28. Living organisms require for respiration and survival.			
29. Long-term use of products can lead to serious health issues.			
30. Stars with have properties between low-mass and high-mass stars.			

## **Answer**

Multiple Choice: 1. Alzheimer's 2. Exoplanet 3. Gravitational 4. Ripens 5. Adenocarcinoma 6. Massive

7. Breathing 8. Data 9. Evolution 10. Toxins

Gap-Fill: 11. Research 12. Promise 13. Domestication 14. Chemicals 15. Astronomers 16. Pollution

17. Significant 18. Strategies 19. Observations 20. Gravitational

Matching sentence: 1. Evolved 2. Microlensing 3. Identifying 4. Exoplanet 5. Activity 6. Poisonous 7. Promising

8. Oxygen 9. Tobacco 10. Intermediate-mass

### **CATEGORY**

1. Health - LEVEL2

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