



Study: H5N1 Bird Flu Lingers in Raw Milk Cheese

Description

A study from Cornell University, funded by the US Food and Drug Administration, reveals chilling findings about raw cheese made with milk from bird flu-infected dairy cattle. This cheese harbors the virus for months, potentially posing a risk to public health.

Unlike pasteurized cheeses, raw milk cheeses aren't heat-treated to eliminate germs. Though federal law prohibits raw milk sales across state lines, raw milk cheese is legal nationwide if aged for 60 days. This aging process was thought to reduce contamination risks by allowing natural acids and enzymes to destroy pathogens.

The new study challenges this belief, showing that H5N1 virus may remain active despite cheese aging, highlighting the dangers of consuming raw foods during ongoing bird flu outbreaks.

Dr. Diego Diel, who led the study, suggests the virus's stability is due to its protection within the cheese's matrix of proteins and fats — a cozy environment that shelters it even at low temperatures.

During the study, mini cheeses were made with spiked milk at varying acidity levels. Remarkably, the virus remained infectious throughout the aging period, illustrating its persistence.

While reports of human infection via consumption are nonexistent, this study underscores the necessity of heightened surveillance. One potential safeguard could be making cheese more acidic, a method suggested to kill the virus.

Experts reinforce the advice to steer clear of raw milk products, emphasizing that pasteurization is effective in eliminating the virus and ensuring consumer safety.

Vocabulary List:

1. **Harbors** /'hɑ:rbərz/ (verb): To hold or contain a virus or organism.
2. **Contamination** /kən,tæmɪ'neɪʃən/ (noun): The action or state of making something impure by exposure to or addition of a poisonous or polluting substance.
3. **Pathogens** /'pæθə,dʒɛn/ (noun): Microorganisms that can cause disease.
4. **Infectious** /ɪn'fɛkʃəs/ (adjective): Capable of causing infection or disease.
5. **Surveillance** /sɜ:r'veɪləns/ (noun): Close observation especially of a suspected spy or criminal.
6. **Pasteurization** /,pæstəraɪ'zeɪʃən/ (noun): The process of heating food and beverages to kill harmful bacteria.



Comprehension Questions

Multiple Choice

1. Where was the study conducted regarding raw cheese and bird flu?
Option: Harvard University
Option: Cornell University
Option: Stanford University
Option: Yale University
2. What agency funded the study on raw cheese and bird flu?
Option: US Department of Agriculture
Option: Centers for Disease Control and Prevention
Option: World Health Organization
Option: US Food and Drug Administration
3. How long is raw milk cheese legally required to be aged in the US?
Option: 30 days
Option: 60 days
Option: 90 days
Option: 120 days
4. What is suggested as a potential method to kill the virus in cheese?
Option: Increasing fat content
Option: Raising temperature
Option: Adding more preservatives
Option: Making the cheese more acidic
5. What scientist led the study on raw cheese and bird flu?
Option: Dr. Emily Brown
Option: Dr. Mark Johnson
Option: Dr. Diego Diel
Option: Dr. Sarah Smith
6. What component of raw milk cheese provides a protective environment for the virus?
Option: Calcium



- Option: Proteins and fats
- Option: Vitamin D
- Option: Carbohydrates

True-False

- 7. Raw milk cheese is subjected to heat treatment to eliminate germs.
- 8. Federal law allows the sale of raw milk cheese across state lines.
- 9. The aging process of raw milk cheese was thought to reduce contamination risks.
- 10. The study found that the H5N1 virus remains inactive after cheese aging.
- 11. Reports of human infection from consuming the cheese are common.
- 12. Experts advise against consuming raw milk products due to safety concerns.

Gap-Fill

- 13. Federal law prohibits the sale of raw milk cheese across state lines, but it is legal nationwide if aged for _____ days.
- 14. Dr. Diego Diel led the study and suggested making cheese more acidic as a potential safeguard to kill the _____.
- 15. Experts recommend avoiding raw milk products as pasteurization is effective in eliminating the _____.
- 16. The new study challenges the belief that aging raw milk cheese reduces contamination risks by allowing natural acids and enzymes to destroy _____.



17. According to Dr. Diel, the virus remains stable within raw milk cheese due to the protective matrix of _____ and _____ .

18. During the study, mini cheeses were made with spiked milk to illustrate the _____ of the virus throughout the aging period.

Answer

Multiple Choice: 1. Cornell University 2. US Food and Drug Administration 3. 60 days 4. Making the cheese more acidic 5. Dr. Diego Diel 6. Proteins and fats

True-False: 7. False 8. False 9. True 10. False 11. False 12. True

Gap-Fill: 13. 60 14. virus 16. pathogens 17. proteins, fats 18. persistence

Vocabulary quizzes

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

1. Which type of disease affects the heart and blood vessels?

Option: Cardiovascular

Option: Endocrine

Option: Musculoskeletal

Option: Neurological

2. What term is used to describe additional issues or problems that arise following a primary disease?

Option: Allergies

Option: Complications

Option: Remission

Option: Prevention

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

3. _____ is the process of receiving a vaccine to build immunity against a specific disease.



Matching Sentences (Match each definition to the correct word from the vocabulary list.)

4. Diseases caused by pathogenic microorganisms are considered .

5. The act of admitting a patient to a hospital for treatment is known as .

Answer

Multiple Choice: 1. Cardiovascular 2. Complications

Gap-Fill: 3. Vaccination

Matching sentence: 1. Infectious 2. Hospitalization

CATEGORY

1. Health - LEVEL4

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Author

aimeeyoung99

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