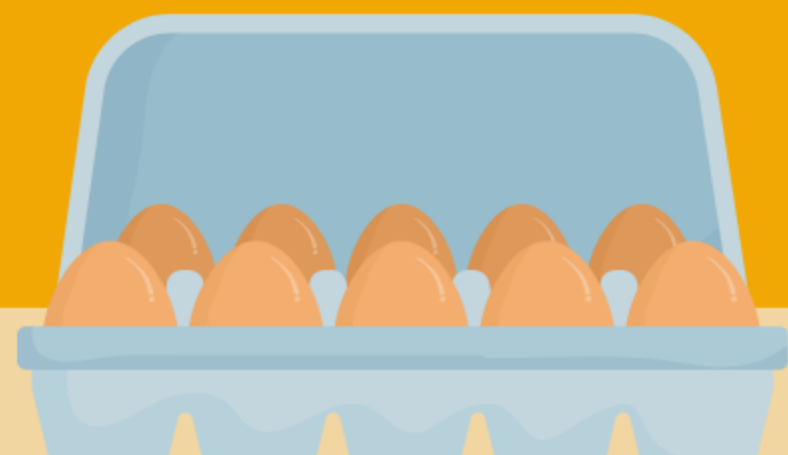
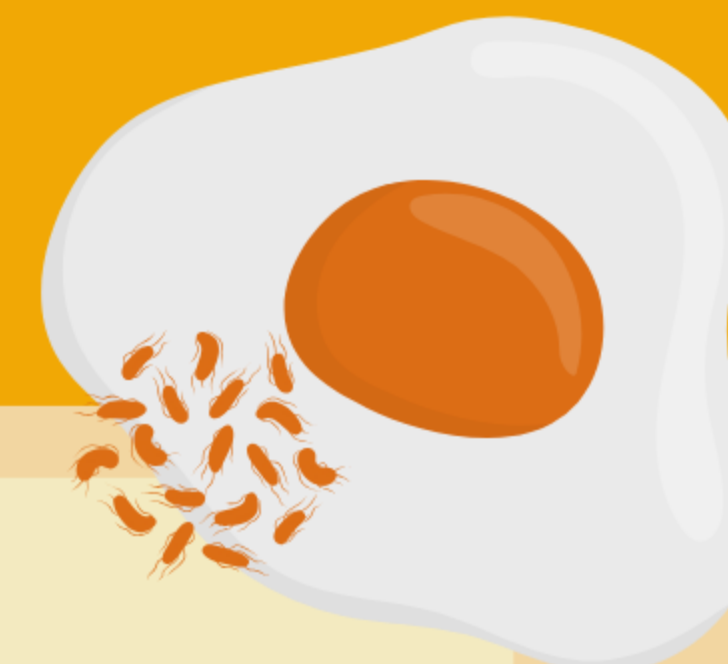


EGG PRESERVATION TECHNIQUES: A REVIEW OF CONVENTIONAL AND EMERGING METHODS

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OBJECTIVE



This study aim to provide a comprehensive overview of conventional and emerging preservation techniques for shell eggs.



MAIN CONCERN

The methods are assessed based on their effectiveness in reducing microbial load—primarily Salmonella—and preserving egg freshness, measured by Haugh Unit, yolk index, and pH.



PROS AND CONS



Non-thermal approaches help preserve heat-sensitive components.



Ozone, Edible coating is GRAS (generally recognised as safe).



Conventional methods exhibit low energy efficiency and require prolonged processing times.



Ozone need precise control to avoid sensory and oxidative issues.



Microwave, Radiofrequency, UV light face issues like uneven heating and limited penetration.



THERMAL METHODS



NON-THERMAL METHODS



Hot water immersion



UV light



Hot/humid air



Ozone



Radiofrequency



Coating



CONCLUSION

1

Non-thermal technologies show promise over traditional heat treatments.

2

Combining preservation technologies can improve microbial control and preserve egg quality more effectively than single treatments.

3

Further studies should focus on optimizing these methods for commercial use.