Inhibiting Storage Browning in Cheese

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WARF: P130152US01

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method to control browning and associated off-flavoring in cheese, especially Parmesan.

OVERVIEW

For 800 years Parmesan has been one of the most sought-after cheeses and today supports a billion dollar market. Parmesan is susceptible to an unappealing browning effect that is not fully understood but involves the compound methylglyoxal, which results from microbial metabolism. It isn’t prevented by refrigeration.

Appearance and proper flavor are critical to cheese marketability. Preventing browning and its impacts on taste and odor would help products retain their value.

THE INVENTION

A UW–Madison researcher has developed a method to inhibit methylglyoxal-mediated cheese browning using a reducing agent. The reducing agent, such as glutathione or sodium sulphite, is added in an effective amount to cheese upon shredding.

APPLICATIONS

• Inhibiting browning in Parmesan cheese

KEY BENEFITS

• First known means to prevent this type of browning
• Treated cheese has better color, odor and flavor.
• Products retain market value.

STAGE OF DEVELOPMENT
The development of this technology was supported by WARF Accelerator. WARF Accelerator selects WARF’s most commercially promising technologies and provides expert assistance and funding to enable achievement of commercially significant milestones. WARF believes that these technologies are especially attractive opportunities for licensing.

ADDITIONAL INFORMATION

Related Portfolios
WARF Accelerator Program Technologies

Related Technologies
WARF reference number P03299US describes a method using endopeptidase enzymes to reduce the bitterness and off-flavors that can develop in cheese during the aging process.

Publications


Tech Fields
Food & Supplements - Safety & quality

CONTACT INFORMATION

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842.