

## <sup>1</sup>H-NMR method for the detection of cyclopropane fatty acids as molecular biomarkers for hay milk authentication

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## Introduction

•Hay Milk and EU TSG: Hay milk is an Alpine dairy product, recognized with a Traditional Speciality Guaranteed (TSG) label.

•Silage-Free Feeding: While hay milk should be produced only from cows fed with a silage-free diet, currently no official control exists.

•CPFAs as Authenticity Markers: To protect hay milk from frauds, the use of cyclopropane fatty acids (CPFAs) as biomarkers is promising, because they are present only in milk coming from a silage-based diet

•<sup>1</sup>H-NMR Method: This work aimed to screen 245 milk samples from South Tyrol (Italy) and build a classification model for assuring hay milk authenticity using the <sup>1</sup>H-NMR signal of CPFAs.





