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Role of Reactive Carbonyl Species in Non-Enzymatic Browning of Apple Juice During Storage

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Highlights

- Color and Reactive Carbonyl Species in apple juice were monitored for 10 weeks
- Browning development and RCS composition were significantly correlated
- Supplementation demonstrated a causality relationship between color and specific RCS
- Methylglyoxal and glyoxal were identified as browning precursors in apple juice
- Phloretin significantly inhibited browning formation in early storage

Keywords: apple juice, Reactive Carbonyl Species, shelf-life, Maillard reaction, browning

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