INTRODUCTION

In sparkling wine, the perception of effervescence is elicited by the presence of carbon dioxide (CO₂) bubbles. Previous studies in the area of sparkling wine carbonation have evaluated sparkling wine components. However, few studies have profiled the dynamics of carbonation perception.

A recent descriptive method, Temporal Check-All-That-Apply (TCATA), allows for the simultaneous identification of both non-dominant and dominant attributes to characterize the product. Using this method, panelists are instructed to evaluate the product over time and constantly check and uncheck the attributes as they are or are not perceived, respectively. Researchers have applied TCATA to evaluate a wide range of products, including orange juice and yogurt, as well as commercialieated fresh milk. Salamis, cheese, French bread, and marinated mussels, and red wine finishes.

The overall objective of the present study was to describe the sensory aspects of sparkling wines containing different concentrations of CO₂ (0.75 g CO₂/L).

RESULT AND DISCUSSION

Table 1. Mean intensity of mouthfeel attributes (using a 15-cm linear scale) of 11 sparkling wine treatments as evaluated by trained DA panel. Low-level plates shown in red and high-level plates in green.

Table 2. Average proportion of panel citations of mouthfeel attributes of 11 sparkling wine treatments as evaluated by the trained TCATA panel across all points of evaluation (12 s). Low-level plates shown in red and high level plates in green.

MATERIALS AND METHODS

Wine sampling was done from a winery by varying the concentration of dextror and dextror to achieve CO₂ levels (0.75). The panel of 75 participants was trained in the use of TCATA methodology for mouthfeel and taste attributes. Canonical variate analysis (CVA) was used to determine the attributes driving the most variance among the sparkling wine treatments.

Sparkling wines were evaluated by a trained DA sensory panel (n=11) for mouthfeel attributes. Sparkling wines were evaluated by a trained DA sensory panel (n=11) for mouthfeel attributes.

Temporal curves, average attribute citation, and duration of perception were calculated. Multiple factor analysis (MFA) was used to assess interaction between two descriptive methods.