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Abstract

Live Poster Session

Major: Dietetics

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Xanthan Gum: Evaluation of Egg Replacement in Chocolate Chip Cookies

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Products like xanthan gum have been used as egg replacers to combat the negative aspect that eggs may bring; for example, cholesterol and other negative health effects. Xanthan gum may be used for individuals who suffer with health problems like celiac disease, because it replicates the qualities of gluten. Xanthan is also a common choice for egg replacers when it comes to those who have egg allergies. Xanthan gum was found to be used as an adequate substitute for eggs in cookies; improving or giving similar structure and moisture levels. Thus, reinforcing the idea that the quality and properties of eggs can be almost completely replicated or even produce a better product. To support this, and show that xanthan can be used as a proper egg replacer, various cookies were made with different levels of egg replacements with xanthan. These substitution ratios were one cookie with a 50/50 ratio at 50% egg and 50% xanthan, one cookie with 100% egg replaced with xanthan gum, along with a control at 100% egg. The cookie that produced a product similar to the control, mostly in physical appearance, was the egg replaced with 100% xanthan gum, while the cookie with 50% egg and 50% xanthan produced a less dense (the degree of compactness of a substance), sweeter, cookie. It was found that the cookie most preferred was the control at 100% egg.