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Effect of sourdough and storage time on *in vitro* starch digestibility and estimated glycemic index of gluten free teff bread

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This study investigated the effect of sourdough and storage time on the digestibility of starch and the estimated glycemic index (eGI) of gluten free teff breads. The volume and texture of fresh breads containing 0-30% sourdough ranged from 1.8 to 1.9mL/g and 7.7-10.5N, respectively. The rapidly digestible starch (RDS), slowly digestible starch (SDS) and resistant starch (RS) of fresh breads containing 0-30% sourdough was in the range of 49-58, 16-29 and 20-26g/100g DM starch, respectively. Following storage of the breads, the RDS content decreased while SDS and RS increased. The eGI of all the breads stored for 0-5 days ranged from 57 to 89 and 39 to 86 based on model of Goni, Garcia-Alonso and Saura-Calixto (1997) and Granfeldt, Bjorck, Drews, and Tovar (1992), respectively. Addition of sourdough did not affect the eGI of teff breads. Duration of teff bread storage have significant effect on GI indicating that consumption of aged teff bread could be beneficial in terms of attaining lower GI if the safety and organoleptic properties of teff bread is not compromised.

Biography

Habtu Shumoy is pursuing his PhD in Food Science and Nutrition at Gent University, Belgium. Since his PhD, start in July 2014, he has published seven research papers in reputable international journals. During his PhD study, he tutored four successfully completed MSc thesis students in Gent University. He has presented part of his PhD in two international conferences named as 'the European nutrition conference' and 'The first food chemistry conference', held in Berlin (2015) and Amsterdam (2016). He had worked for three years as a Lecturer in the Food Science and Postharvest Technology Department at Mekelle University, Ethiopia.

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