

Title: Effect of sourdough and storage time on *in vitro* starch digestibility and estimated glycemic index of gluten free tef 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 tef breads. The volume and texture of fresh breads containing 0-30% sourdough ranged from 1.8 to 1.9 mL/g and 7.7-10.5 N, respectively. The rapidly digestible starch (RDS), slowly digestible starch (SDS) and resistant starch (RS) of fresh breads containing 0-30% sourdough were in the range of 49-58, 16-29 and 20-26 g/100 g 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, & Saura-Calixto (1997) and Granfeldt, Bjorck, Drews, & Tovar (1992), respectively. Addition of sourdough did not affect the eGI of tef breads. Duration of tef bread storage have significant effect on GI indicating that consumption of aged tef bread could be beneficial in terms of attaining lower GI if the safety and organoleptic properties of tef bread is not compromised.

Biography

Habtu Shumoy (32) is 4th year PhD student in Food Science and Nutrition at Gent University, Belgium. Since his PhD start in July 2014, he has Published 7 research papers in reputable international journals. During his PhD study, he tutored 4 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 3 years as a lecturer in the food science and postharvest technology department at Mekelle University, Ethiopia.