Lipid peroxidation and acceptability of hamburgers with added carob flour (Ceratonia siliqua L.)
Claudia S. Rosa, Ernesto Kubota, Marília Stein, Gabriela Nogara, Maira Vizzoto. Universidade Federal de Santa Maria – UFSM, Avenida Roraima, 1000, 97105900, Santa Maria, Rio Grande do Sul, Brazil

Lipid peroxidation is one of the causes of deterioration of meat foods, leading to many adverse effects in terms of quality, among them: taste, aroma, texture and nutritional value. Synthetic and natural antioxidants are commonly used to block or slow the process of meat peroxidation. Carob flour has 16 to 20% of condensed tannins, with antioxidant activity in vitro. The present work aimed to evaluate the influence of carob flour addition in hamburgers and to check the lipid peroxidation and acceptability. Four formulations of hamburgers were developed: one control, one with 0.1% synthetic (BHT) antioxidant and two with carob flour at 2 and 4%, respectively. Chemical composition analyses were conducted, as well as determination of the sensory analysis was conducted through an affective test with 30 untrained tasters in October 2010. The chemical composition of the hamburgers did not show a significant difference in humidity, lipids and protein in the treatments. In all treatments values were under 1.59 mg malonaldehyde.kg-1 indicating that all products were in adequate conditions regarding lipid peroxidation. The addition of carob flour in hamburgers did not meet the goal originally proposed to delay lipid peroxidation. The best hamburgers by the judges were those added with 2% carob flour and 0.1% BHT. The control hamburgers had the worst acceptance.