WORKING TOWARDS THE DEFINITION OF QUALITY FEATURES OF TWO TRADITIONAL STREET FOODS, BENINESE ATA AND ITALIAN POPIZZA

D. De Angelis, D. Di Rella, Y. Madodé, A. Briffaz, D.J. Hounhouigan, C. Summo, A. Pasqualone

*University of Bari, Italy. †Laboratory of Food Sciences, University of Abomey-Calavi, Benin. ‡UMR QualiSud, Montpellier, France

Correspondence: antonella.pasqualone@uniba.it, davide.deangelis@uniba.it

Introduction
Street food plays a recognized socioeconomic role, offering opportunities of employment particularly for women, and providing cheap food to lower income people. West Africa is characterized by several traditional foods, widely consumed but poorly investigated. ATA is a fried dough made of cowpea flour, very popular in Benin. In Southern Italy, popizza is prepared in a very similar way as ata, but using wheat flour, and has never been studied. This work aimed at defining the main physico-chemical quality characteristics of ATA and popizza, and to compare them.

Methods
Cowpea (for ata) or wheat (for popizza) flour, yeast and salt were mixed with water to obtain a dense batter, which was left to rise (90 min, 25 °C). Then, batter portions (4 cm diameter) were deep fried. Batter viscosity at increasing temperature, color, crumb structure, texture, and oil uptake were assessed. Data were subjected to one-way ANOVA with 5% as level of significance.

Discussion
Based on the thermal behavior of ata batter, it is plausible that cowpea flour contained more damaged starch than wheat flour. The lack of gluten in cowpea caused a finer crumb structure in ata compared to popizza and, in turn, higher springiness, because the gas was not retained by gluten-free batter. The presence of damaged starch in ata enhanced the Maillard reaction, resulting in a browner color. Smaller pores, as in ata, caused higher capillary pressure and, consequently, higher oil uptake.

Knowledge about quality of these foods could enhance their marketing, with positive effects on local economy.