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Paper Title **Nutrient Composition of Unfortified and Fortified White Bread Flour**

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ABSTRACT

Rationale: The nutrient information on wheat flour in the South African Food Composition Database is not of South African origin.

Objective: The study objective was to generate energy and nutrient values for unfortified and fortified white bread flour prepared from South African wheat.

Methods: Wheat samples, received annually by the Southern African Grain Laboratory (SAGL) for the national wheat crop quality survey, were used to obtain representative wheat samples for South Africa. Samples were milled on a Bühler MLU 220 laboratory mill to obtain white bread flour samples.

Unfortified white bread flour samples were fortified in line with the national food fortification guidelines, using a micronutrient premix obtained from a registered manufacturer. Unfortified and fortified samples were analysed for micronutrients.

Results showed that the riboflavin content per 100 g of unfortified white bread flour was 0.03 mg before fortification and 0.16 mg after fortification. For unfortified white bread flour, niacin was 6.37 mg and after fortification 7.31 mg per 100 g. The iron content per 100 g of unfortified white bread flour was 1.14 mg and the fortified white bread flour was 2.91 mg.

Conclusion: The successful completion of this study resulted in the generation of South African white bread flour values for the first time. These values can serve as guidelines for the national food fortification programme.